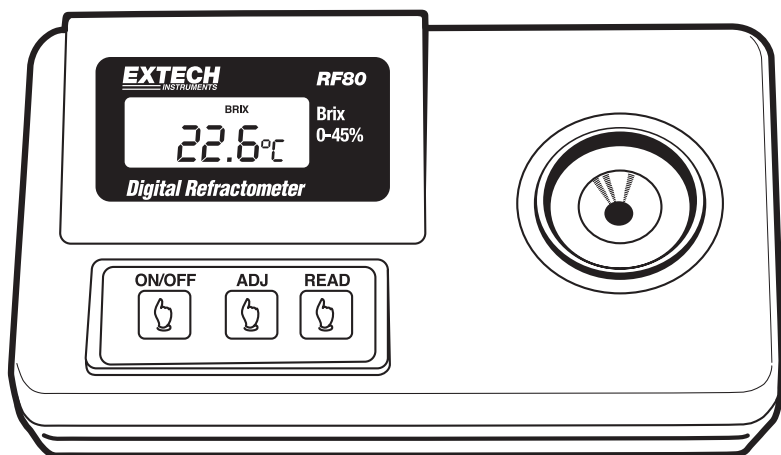


User's Guide



Brix 0-45% Digital Refractometer

Model RF80



Introduction

Congratulations on your purchase of the Extech RF80 Digital Refractometer. This precision optical instrument should be handled gently; avoid touching the optical surface. With proper care this meter will provide years of safe, reliable service.

Warranty

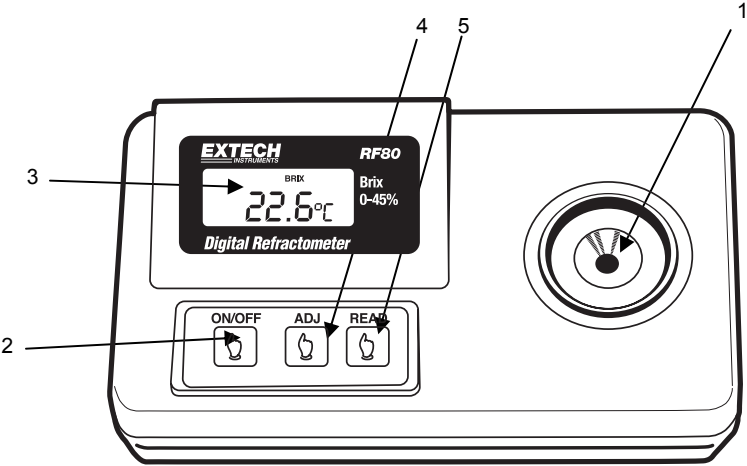
EXTECH INSTRUMENTS CORPORATION warrants this instrument to be free of defects in parts and workmanship for one year from date of shipment (a six month limited warranty applies on sensors and cables). If it should become necessary to return the instrument for service during or beyond the warranty period, contact the Customer Service Department at (781) 890-7440 ext. 210 for authorization or visit our website at www.extech.com (click on 'Contact Extech' and go to 'Service Department' to request an RA number). A Return Authorization (RA) number must be issued before any product is returned to Extech. The sender is responsible for shipping charges, freight, insurance and proper packaging to prevent damage in transit. This warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification. Extech specifically disclaims any implied warranties or merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, incidental or consequential damages. Extech's total liability is limited to repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.

Specifications

Range	0 to 45% Brix, 1.3330 to 1.4098 Refractive Index
Resolution	0.1% Brix, 0.0001 Refractive Index
Accuracy	±0.1% Brix, ±0.00015 Refractive Index
Operating Temp. Range	32 to 104°F (0 to 40°C)
Storage Temperature	14 to 122°F (-10 to 50°C)
Dimensions	7.3x4.x1.9" (184x102x48mm)
Weight	14.4 oz. (408g)
Power Supply	One 9 Volt Battery

Description

- 1. Prism Surface
- 2. Power Button
- 3. LCD Display
- 4. Zero Adjustment Button
- 5. Test Button



Operation

The instrument measures the refractive index of the sample and can display it in either % Brix or in refractive index.

1. Power On

Press the Power On/Off button to turn the instrument power ON. Current temperature will be displayed in degrees centigrade (°C). This instrument has an auto shut-off feature that shuts the unit down after 3 minutes of inactivity.

2. Zero Adjustment

For best results, zero adjustment should be performed at a temperature between 18 and 22°C (64.4 and 71.6°F) but can also be performed between 10 and 30°C (50 and 86°F).

1. Make sure prism is clean.
2. Place enough distilled water to cover the prism.
3. Press and hold the ADJ button until "rEF" flashes on the LCD. When zero adjustment is finished the meter will display "End" before returning to home state.
4. Once the zero adjustment has been completed clean the prism with a soft cloth.


3. Sample Reading

1. Make sure prism is clean.
2. For the best results, the temperature of the sample should be as close as possible to the temperature displayed on the LCD.
3. Cover the prism with the solution to be tested.
4. Press the READ button. The test result will be displayed on the LCD. The reading has been completed.
5. Clean the prism with a soft cloth. It is important to clean the prism before every measurement.

4. Changing Units

With the power turned off, press and hold the READ and ADJ buttons and then press the ON/OFF button. The displayed function will switch so the unit can display results in either Brix or Refractive Index.

5. Battery Replacement

The  icon appears on the upper left corner of the display when the battery voltage falls low. Unscrew the battery compartment on the bottom of the unit. Remove old battery and replace with fresh one.

Temperature Compensation

Temperature is one of the single most important factors influencing accurate refractometer readings and is one of the largest sources of error in measurement. Temperature compensation relieves the user of the responsibility to measure temperature and apply a correction factor when taking readings. *This refractometer makes this correction automatically.* When ambient temperature varies from 68°F (20°C), readings are automatically adjusted to compensate for temperature variance between 50°F to 86°F (10°C to 30°C).

Calibration and Repair Services

Extech offers complete repair and calibration services for all of the products we sell. For periodic calibration, NIST certification or repair of this Extech product, call customer service for details on services available. Extech recommends that calibration be performed on an annual basis to ensure calibration integrity.



Support Hotline (781) 890-7440

Tech support: Ext. 200; Email: support@extech.com

Repair>Returns: Ext. 210; Email: repair@extech.com

Website: www.extech.com

Copyright © 2002 Extech Instruments Corporation.

All rights reserved including the right of reproduction in whole or in part in any form.