R7700

REED INSTRUMENTS

Gloss Meter

Instruction Manual

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Introduction

Thank you for purchasing your REED R7700 Gloss Meter. Please read the following instructions carefully before using your instrument. By following the steps outlined in this manual your meter will provide years of reliable service.

Product Quality

This product has been manufactured in an ISO 9001 facility and has been calibrated during the manufacturing process to meet stated product specifications.

Safety

- Never attempt to repair or modify your instrument. Dismantling your product, other than for the purpose of replacing batteries, may cause damage that will not be covered under the manufacturer's warranty. Servicing should only be provided by an authorized service center.
- Keep the lens protected from bright light.
- When drastically changing the temperature environment of the unit allow the unit time to calibrate to the new environment.

Features

- Compact design allows for one-handed operation
- Multi-angle measurement (20/60/85°)
- Backlit LCD display
- Auto calibration
- Internal memory stores last 254 data points
- Built-in rechargeable battery
- Designed to meet ASTMD523, ASTMD1455, ASTMC584 and ASTMD2457 international standards

Included

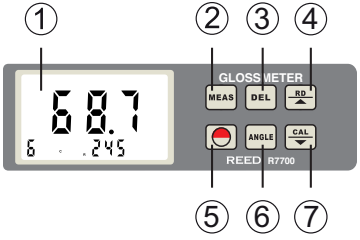
- AC Adapter
- Calibration Standard
- Cleaning Cloth
- Hard Carrying Case

Specifications

Measuring Range:	0.1 to 200 GU
Measuring Geometry:	20°/60°/85°
Accuracy:	±1.0 GU
Resolution:	0.1 GU
Repeatability:	±0.5 GU
Measuring Area:	7 x 14mm (Ellipse)
Display:	LCD
Backlit Display:	Yes
Auto Shut-Off:	Yes (after 30 minutes)
Low Battery Indicator:	Yes
Power Supply:	Rechargeable Lithium Battery
Internal Memory:	Yes (up to 254 datapoints)
Product Certifications:	CE/RoHS
Operating Temperature:	32 to 104°F (0 to 40°C)
Storage Temperature:	-4 to 140°F (-20 to 60°C)
Operating Humidity Range:	0 to 85%
Dimensions:	5.5 x 1.8 x 3" (140 x 45 x 75mm)
Weight:	10.76oz (305g)

Instrument Description

1. Display
2. Measurement Button
3. Delete Button
4. Data Recall/Up Button
5. Power Button
6. Angle Button
7. Calibration/Down Button



Operating Instructions

Power ON/OFF

Turn the meter on by pressing the **POWER** button. To turn the meter off, press, hold and release the **POWER** button when OFF appears on the LCD.

Calibration

1. Press the **ANGLE** button to select the right measuring geometry.
2. Place the unit into the included calibration standard.
3. Take a measurement by pressing the **MEAS** button. Compare the measured value with the value marked on the standard label. If it matches the value on the tile holder, the instrument is within calibration and ready for use.
4. If the measured value does not match the assigned value, press the **CAL** button.
5. "CAL" will appear on the display for approximately 2 seconds before indicating the calibration value matching the angle of measurement.
6. Calibration is now complete and the meter is now ready for use.

Note: It is necessary to inspect the condition of the calibration tile and instrument optics before each use. Any dust or debris on the optic should be removed from the lenses using dry clean air, the lenses must not be touched. If there are any permanent marks or scratches on the lens, the unit is no longer suitable for measuring and should be returned for repair to an authorized distributor. The calibration tile must be perfectly clean from smears and scratches before attempting calibration. Fingerprints and dust can be removed with the supplied cleaning cloth.

Single and Continuous Modes

This meter offers single or continuous measurement modes. To toggle between single and continuous modes, hold the **POWER** button and release when "SC" appears on the LCD.

When continuous mode is selected, the measurement indicator ((•)) will appear at the top right of the LCD confirming that the meter will continuously take measurements.

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When single mode is selected, the measurement indicator ((•)) will only appear at the top right of the LCD when a measurement will be taken by the user (see *Taking Single Measurements* section for details).

Measuring Geometry

Gloss is classed as either low, semi or high gloss. In order to determine the best measuring geometry for your test start at a 60° angle as it is considered the universal measurement angle.

The angle is selected based on the anticipated gloss range, as shown in the table below.

Gloss Range	60° Value	Notes
High Gloss	>70 GU	If measurement exceeds 70 GU, change test setup to 20°.
Medium Gloss	10 to 70 GU	
Low Gloss	<10 GU	If measurement is less than 10 GU, change test setup to 85°

Taking Single Measurements

1. Place the measurement aperture against the material.
2. Press the **ANGLE** button to select the right measuring geometry.
3. Take measurements by pressing the **MEAS** button.
4. The reading that displays within 2 seconds is the gloss value at the selected angle position.
5. Each result is automatically logged into memory.

Note: Find the center of measurement by the intersection of the arrows marked on the front and side of the instrument.

Taking Continuous Measurements

1. Place the measurement aperture against the material.
2. Press the **ANGLE** button to select the right measuring geometry.
3. The reading that displays within 2 seconds is the gloss value at the selected angle position.

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4. Each continuous result is automatically logged into memory.

Note: This mode is used to measure large area samples and assess the homogeneity of large-area samples.

Data Recall

1. While in measuring mode as indicated by "M" on the display, press the **RD** button to access logged data.
2. "R" will appear on the display along with the total number of logged data.
3. Press the ▲ button cycle up through the values.
4. Press the ▼ button to cycle down through the values.
5. Each individually logged data can be deleted by pressing the **DEL** button.
6. To exit data recall, press either the **MEAS** or **ANGLE** buttons.

Clear Memory Data

1. When in measuring mode you can delete the most recently logged data by pressing the **DEL** button.
2. To clear the data in memory press the **DEL** button for 3 seconds. The stored reading will become 000.

Note: If there are no values to delete, the display will show "Err1".

Auto-Power Off

To preserve battery life, the meter is programmed to turn off after 30 minutes of inactivity.

Charging the Battery

When the battery is low a battery icon will appear on the display of the unit. The power adapter should be connected to the instrument and plugged into a power outlet or computer via the USB.

Note: It can take up to 5 hours for the meter to be fully charged and can still be used while the battery is being charged.

Accessories and Replacement Parts

- **R8888** Deluxe Hard Carrying Case

Don't see your part listed here? For a complete list of all accessories and replacement parts visit your product page on www.reedinstruments.com.

Applications

- Floor maintenance
- Surface quality assurance
- Stone and tile manufacturing
- Paint and ink manufacturing
- Automobile paint inspection

Product Care

To keep your instrument in good working order we recommend the following:

- Store your product in a clean, dry place.
- Change the battery as needed.
- If your instrument isn't being used for a period of one month or longer please remove the battery.
- Clean your product and accessories with biodegradable cleaner. Do not spray the cleaner directly on the instrument. Use on external parts only.

Product Warranty

REED Instruments guarantees this instrument to be free of defects in material or workmanship for a period of one (1) year from date of shipment. During the warranty period, REED Instruments will repair or replace, at no charge, products or parts of a product that proves to be defective because of improper material or workmanship, under normal use and maintenance. REED Instruments total liability is limited to repair or replacement of the product. REED Instruments shall not be liable for damages to goods, property, or persons due to improper use or through attempts to utilize the instrument under conditions which exceed the designed capabilities. In order to begin the warranty service process, please contact us by phone at 1-877-849-2127 or by email at info@reedinstruments.com to discuss the claim and determine the appropriate steps to process the warranty.

Product Disposal and Recycling

Please follow local laws and regulations when disposing or recycling your instrument. Your product contains electronic components and must be disposed of separately from standard waste products.

Product Support

If you have any questions on your product, please contact your authorized REED distributor or REED Instruments Customer Service by phone at 1-877-849-2127 or by email at info@reedinstruments.com.

Please visit **www.REEDINSTRUMENTS.com** for the most up-to-date manuals, datasheets, product guides and software.

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