



Operation Manual
Rhythm 5D
Densitometer

General Information:

The Rhythm 5D is a handheld, battery-powered densitometer that measures the transmission density of x-ray film with great precision and repeatability while being simple to use. This device is perfect for use in industrial facilities or research labs because of its unique size and design.

Safety instruction:

- Keep the instrument away from wet platform and hot surfaces.
- Anyone who is not familiar with the operating instructions should not use the densitometer and its components or must be supervised when using it.
- The purpose of the safety instruction is to protect you, prevent damage to the device, and allow trouble-free operation.

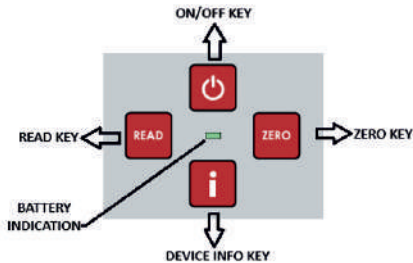
Salient Features:

- Big & Colorful LCD Screen Display
- Compact & Light Weight
- Rechargeable Li-ion Battery
- Continues 8 hours of battery back up in single charge
- Complies with **ASTM E1079** Standard.
- Display last density reading

Technical Specifications:

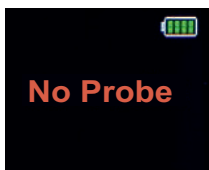
Model Name	Rhythum 5D
Measuring Range	0 – 4.2D
Illumination Range	30,000 Lux - 1,20,000 Lux
Accuracy	± 0.05D
Repeatability	± 0.02D
Aperture	2.5 mm
Power Requirements	3.4V,1000mAh Li-ion rechargeable
Dimensions	(LxWxH) 146 mm x 85 mm x 25 mm
Operating Temperature	10°C to 40° C
Battery Charging Time	3.5 Hr.
Weight	305 gm. (0.672 lbs.)

Keypad Picture:



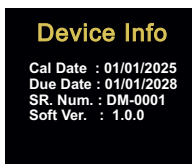
Operating Instruction:

- Before using the unit for the first time, ensure that it is fully charged.
- To turn on the device, press the ON/OFF key.
- When you switch ON the device without connecting the probe or detach the probe while it is turned on, the No Probe warning appears.



Note: For measurement purposes, it's advisable to connect the probe before switching on the equipment.

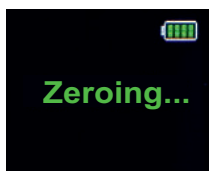
- After on the device numerical digits will appear [0.00] on the screen which means the device is ready for the next step.
- To turn off the instrument, long press the ON/OFF key .
- By pressing the [i] button, the densitometer displays DEVICE INFO, which includes basic unit information such as the Cal date, Due date, Serial number, and Software version. After 10 seconds, it returned to the main screen.



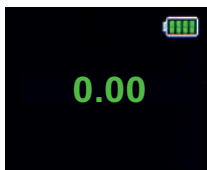
Zeroing Procedure:

After starting up, the densitometer should be done zero, prior to taking measurements. Zeroing should be done at a stable illumination level of the area where the reading will be taken. The zeroing procedure is described below:

- Clean the illumination platform where the probe will be placed.
- Hold the probe arm perpendicular to the illumination platform.
- Adjust the light Intensity to a recommended fixed value and Press the ZERO button on the instrument keypad. Wait for complete the zeroing process.



- The display unit will show "0.00". That means the instrument is ready to take density readings.



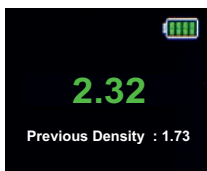
- Now without changing the light intensity of the illumination platform, take measurements.

Note:

- If the instruments show random values that means the zeroing procedure should be done again, Then restart the device, so every time to do zeroing procedure.
- It is also recommended if you are holding or taking the reading for long time, then it is important to do zeroing procedure after some time.

Measurements:

- Once zeroing is done the operator can start to take readings of the radiography films instantly. It is strongly recommended to take readings in the same area where the zeroing procedure was done for the best results.
- You can take reading by pressing the push button on the probe or by pressing the READ button on the instrument.



- If in case reading does not stay stable even after following the previous procedure, contact the manufacturer for support or troubleshooting.

Battery Charging Instructions:

- The instrument comprises of a Li-Ion battery, which can be charged by a given adapter
- The input of these adapters is universal i.e., INPUT: 100-240VAC / 50-60Hz & OUTPUT: 5VDC, 2.5A.
- The operator can check the battery status from the charging symbol which is displayed on the screen.
- The instrument must be immediately charged once the low battery indication is displayed.
- The batteries take approximately 3.5 hours to fully charge.
- A fully charged battery pack provides over 1000 measurements typically.
- Off condition charging status front casing LED Displayed.
- Charging Indicator (Green LED)

ON- Battery is Charging

Off-No adapter connect, charging complete or charging disabled

- Battery indication colors

- a) <25% : Red color
- b) 25%-50% : orange color
- c) 51%-75% : White color
- d) >75% : Green color

Caution:

- Liquids and caustics substances can damage the unit.
- Do not spray on the instrument and never immerse any part of the unit in liquid.

Cleaning and Storage:

- Once in a week wipe the unit with a damp cloth.
- Store the unit in the carrying case properly and in a dry room which is free from dust and humidity.

Product Warranty:

- The densitometer and probe are warranted for a period of 12 months whereas battery & its charger are warranted for a period of 6 months from the date of purchase.
- The warranty is void if the equipment is used in a non-professional manner, resulting in damage or if repairs are carried out other than authorized service center & warranty seal is broken.

Kit Contains:

- Rhythm 5D Densitometer
- Charging adaptor & USB A to USB C cable
- Certificate of Conformance
- Operating Manual



Thank you for your business!

WE trust, we have catered as per your expectations...



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Specifications subject to change without notice.