

# REED

## Model R7050

Photo  
Tachometer



## Instruction Manual

[www.reedinstruments.com](http://www.reedinstruments.com)

**REED Instruments**

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## Safety

To avoid eye injuries do not point the laser beam towards eyes or look directly into beam. Remove the battery if the instrument is not being used for an extended period of time.

## Features

- Combines microcomputer (CPU), photoelectrical, and junction laser technologies into one Photo Tachometer (RPM & REV) instrument
- Two test modes: Rotation speed mode (RPM) & Revolution count mode (REV)
- Provides fast and accurate non-contact RPM and surface speed measurements of rotating objects
- Offers a wide measuring range and high resolution
- Large, easy to read display with backlight
- Built-in memory recalls Maximum, Minimum & Last value stored

For service on this or any other REED product or information on other REED products, contact REED Instruments at [info@reedinstruments.com](mailto:info@reedinstruments.com).

## Specifications

RPM Range:	2 to 99,999 RPM
Count Range:	1 to 99,999 REV
Resolution:	0.1 RPM (2 to 999.9 RPM); 1 RPM (over 1000 RPM)
Accuracy:	$\pm(0.05\%+1 \text{ digits})$
Display:	5-digit LCD
Auto Power-off:	10 seconds
Sampling Time:	0.5 sec (over 120 RPM)
Detecting Distance:	50 to 500 mm
Time Base:	Quartz crystal
Power Consumption:	Approx 45mA
Power Supply:	9V battery or exterior 6V DC
Operating Temperature:	0 to 50°C
Dimensions:	160 x 58 x 39mm
Weight:	151g
Included Accessories:	(3) 8" strips of reflective tape, battery, soft carrying case and instruction manual

## Measuring Procedures

1. Apply a reflective mark to the object being measured.
2. Press the MEAS button and line up the laser beam to the applied target. Verify that the monitor indicator lights when the target aligns with the beam.

### ***Mode***

The instrument will default back to the mode you were last working with. To change the mode, press the MODE button. The instrument will switch between RPM and REV.

## ***Memory Recall***

You can check the Maximum, Minimum and Last values obtained when measuring RPM. Immediately after releasing the MEAS button the data will automatically be stored in the unit. To display these values press the MEM button. Re-press the MEM button to view the MIN & LAST values. If the instrument turns off the values will be lost.

## **Trouble-shooting Procedures**


### ***Reflective Marking Tape***

To use this, simply cut the adhesive tape provided into approximately 12mm ( 0.5") squares, peel off the backing and apply one square to each rotation shaft. The non-reflective area must always be greater than the reflective area. If the shaft is normally reflective, it must be covered with black tape or black paint before attaching the reflective tape. The shaft surface must be clean and smooth before applying the reflective tape.

### ***Very Low RPM Measurements***

When measuring very low RPM values, it is recommended to attach more reflective tape and take several readings. Divide up all the readings taken to come up with an average RPM measurement.

## **Battery Replacement**

1. When the LCD display shows the Low Battery symbol , it indicates that the battery output has fallen below the required voltage. Replacement is now needed.
2. Open the Battery Cover on the back of the meter & remove the battery.
3. Replace the 9V battery, check that the polarization is correct, and reinstall the cover.  
Permanent Damage to the circuit can result from incorrect installation.

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