PeakTech 2790 Digital Tachometer User Manual

Contents

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1. Safety Precautions

This product complies with the requirements of the following directives of the European Union for CE conformity: 2014/30/EU (electromagnetic compatibility), 2014/35/EU (low voltage), 2011/65/EU (RoHS). Pollution degree 2.
To ensure safe operation of the equipment and eliminate the danger of serious injury due to short-circuits (arcing), the following safety precautions must be observed.
Damages resulting from failure to observe these safety precautions are exempt from any legal claims whatever.

- Do not operate the meter before the cabinet has been closed and screwed safely.
- Never touch the tips of the test leads or probe.
- Comply with the warning labels and other info on the equipment.
- Do not subject the equipment to shocks or strong vibrations.
- Do not operate the equipment near strong magnetic fields (motors, transformers etc.).
- Keep hot soldering irons or guns away from the equipment.
- Allow the equipment to stabilize at room temperature before taking up measurement (important for exact measurements).
- Replace the battery as soon as the battery indicator “BAT” appears. With a low battery, the meter might produce false reading that can lead to electric shock and personal injury.
- Fetch out the battery when the meter will not be used for long period of time.
- Periodically wipe the cabinet with a damp cloth and mid detergent. Do not use abrasives or solvents.
- The meter is suitable for indoor use only
- Do not store the meter in a place of explosive, inflammable substances.
- Do not modify the equipment in any way
- Do not place the equipment face-down on any table or work bench to prevent damaging the controls at the front.
- * Opening the equipment and service – and repair work must only be performed by qualified service personnel
- Measuring instruments don’t belong to children hands.

1.1. Laser classification

This device emits a visible laser beam of the Laser class 2 in accordance with
EN 60825 Part 1, which emerges at the top of the unit. Use this device only in accordance with the relevant national standards

- The device should only be handled with extreme caution, and avoid physical contact with the laser. (Laser emission)
- Never point the laser at people or animals and never look directly into the laser beam, since it can cause serious eye damage.
- Avoid the use of lasers at eye level and possible reflections offreflective surfaces such as glass and polished metal.
- Never aim the laser to gaseous substances or gas reservoirs.(Explosion hazard)
- Any use must be performed by qualified personnel only in compliance with the relevant national regulations.

Cleaning the cabinet

Clean only with a damp, soft cloth and a commercially available mild household cleaner. Ensure that no water gets inside the
equipment to prevent possible shorts and damage to the equipment.

2. Features

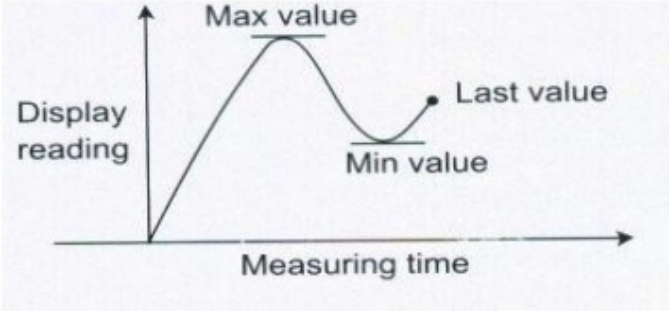
- This digital photo tachometer uses micro-controller, photoelectrical- and laser technology for measurement of RPM (Rounds Per Minute) and REV (Revolution counting)
- Wide measurement range and high resolution
- Automatic measurement value storage for MIN, MAX and LAST recallable with MEM-key
- Easy to read LCD with Backlight
- “Auto Power Off” function

3. Front Panel Descriptions

1. Reflective mark
2. Signal light beam
3. Display
4. Measure button (MEAS)
5. Memory button (MEM)
6. Battery cover
7. Function switch (MODE)
8. Input jack for 6 V DC

4. Data-Memory function

The last measured value before releasing the MEAS-key will be saved to data-memory automatically. You can recall this value by pressing the MEM-Key. The last measured value can be displayed as MAX (highest measured value), MIN (lowest measured value) and LAST (latest displayed value). Proceed as follows:



- To recall the last measured value press the MEM-Key and the MAX (highest measured) value will be displayed
- Press the MEM-key again to display the MIN (lowest measured) value

- Pressing the MEM-key again will display the LAST (latest displayed) value
- If the device is powered- off, press the MEM-Key to switch on the device and show the latest measurement

Note:

If you switch on the device by pressing the MEAS-key the stored measurement value will be overwritten immediately

5. Specifications

Display:	5 digits, LCD
Accuracy:	+/- 0,05 % + 1 digit
Sampling Time:	0,5 sec (over 120 RPM)
Range select:	Auto-Ranging
Memory:	The max. Value/Min; Value/Last Display Value will be automatically stored in Memory.
Detecting Distance:	50 mm to 500 mm (Photo)
Laser product:	class 2, Output < 1 mW, Wave length: 630 x 670 nm
Time Base:	Quartz crystal
Power Consumpt.	Approx. 45 mA
Operation Temp.:	0°C ... 50°C
Battery:	9 V Battery
Accessories:	Carrying case, 3 x reflecting tape marks (200mm), battery, operation manual
Dimensions: (WxHxD)	60 x 160 x 40 mm
Weight:	150 g

6. Photo Tachometer

Test range:	2…99999 Rpm
Resolution:	0,1 Rpm (2…999,9 Rpm) (over 1000 Rpm)
Total test range:	1…99999 Rpm

7. Measuring Procedure

This device can measure the rounds per minute (RPM) or count the revolution (REV). The REV-function can be used as counter with laser as breaker contact. Please proceed as follows:

- Attach reflective tape to measuring object (fan, shaft, gear etc.)
- Press the MEAS-key to switch on the device
- Use the MODE-key to select the measurement mode
- Press and hold the MEAS-key. Adjust the laser to the reflective tape

- After the measurement release the MEAS-key and read the displayed measurement
- After some seconds the device switches off automatically

Note:

Every time the laser hits the reflective tape (((●))) will be displayed.

8. Measuring consideration

Reflective Mark

- Cut and peel adhesive tape provided into approx. 12 mm (0,5”) squares 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 Type or black paint before attaching reflective tape.
- Shaft surface must be clean and smooth before applying Reflective tape.

9. Low RPM Measurement

During the measurement of very low RPM-measurements we recommend to use several reflective tapes for the measurement object to ensure high resolution and fast sampling time. After the
measurement you have to divide the value by the number of tapes strips u used for the measurement.

Statutory Notification about the Battery Regulations

The delivery of many devices includes batteries, which for example serve to operate the remote control. There also could be batteries or accumulators built into the device itself. In connection
with the sale of these batteries or accumulators, we are obliged under the Battery Regulations to notify our customers of the following:

 Please dispose of old batteries at a council collection point or return them to a local shop at no cost.
The disposal in domestic refuse is strictly forbidden according to the Battery Regulations.
You can return used batteries obtained from us at no charge at the address below or by posting with sufficient stamps.
Batteries, which contain harmful substances, are marked with the symbol of a crossed-out waste bin, similar to the illustration shown left.
Under the waste bin symbol is the chemical symbol for the harmful substance, e.g. „Cd“ for cadmium, „Pb“ stands for lead and „Hg “ for mercury

This manual considers the latest technical knowing. Technical changings which are in the interest of progress reserved.
We herewith confirm, that the units are calibrated by the factory according to the specifications as per the technical specifications.
We recommend to calibrate the unit again, after 1 year.

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References

- Home
- Home