LABA7 MTB shock tester
User Manual

Lithuania 2024

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1. Introduction

Dear Customer,

Thank you for purchasing this product.

To ensure safe operation, you must observe these operating instructions!

Read the entire operating instructions before using the product for the first time. Observe all operating instructions and safety instructions!

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2.   Safety Information

- Make sure to read and understand the whole user manual before using the device.
- Do not operate nearby an open flame or heat source.
- Place on a flat and level surface.
- Do not place in a highly corrosive or humid environment.
- Do not use the device or any of its components if they have been damaged.
- Do not perform any maintenance while the device is powered on.
- Do not use leaking batteries.
- Do not exceed the technical specifications of the device.
- Use only AA type batteries, do not mix it with other types.
- Do not mix new and used batteries.
- Do not attempt to recharge non-rechargeable batteries.
- Before charging rechargeable batteries-remove it from the device.
- Remove the batteries if the device is stored unused for a longer period of time.
- Do not short the power supply terminals.
- Remove and safely dispose exhausted batteries.

3. Highlights

Congratulations on your purchase of the LABA7 MTB shock tester!

- Bluetooth 5.1 LE connectivity.
- iOS/Android compatible.
- Two versions: electronic and manual.

4. Technical Specifications

- Power 3xAA batteries per pad (4.5V).
- Minimum force: 100g.
- Maximum force: 300kg.
- Working temperature (+10°C to +30°C) *device works in wider temperature range; however, the same accuracy is not guaranteed.
- Bluetooth range: up to 100m.
- device weight: 12.7kg.
- General size: 700x230x320mm.
- Resolution: 100g.
- Accuracy: 0,015%.

5. Know Your hand dyno

5.1. Overview

The overview of the LABA7 MTB shock tester is presented in the image below:
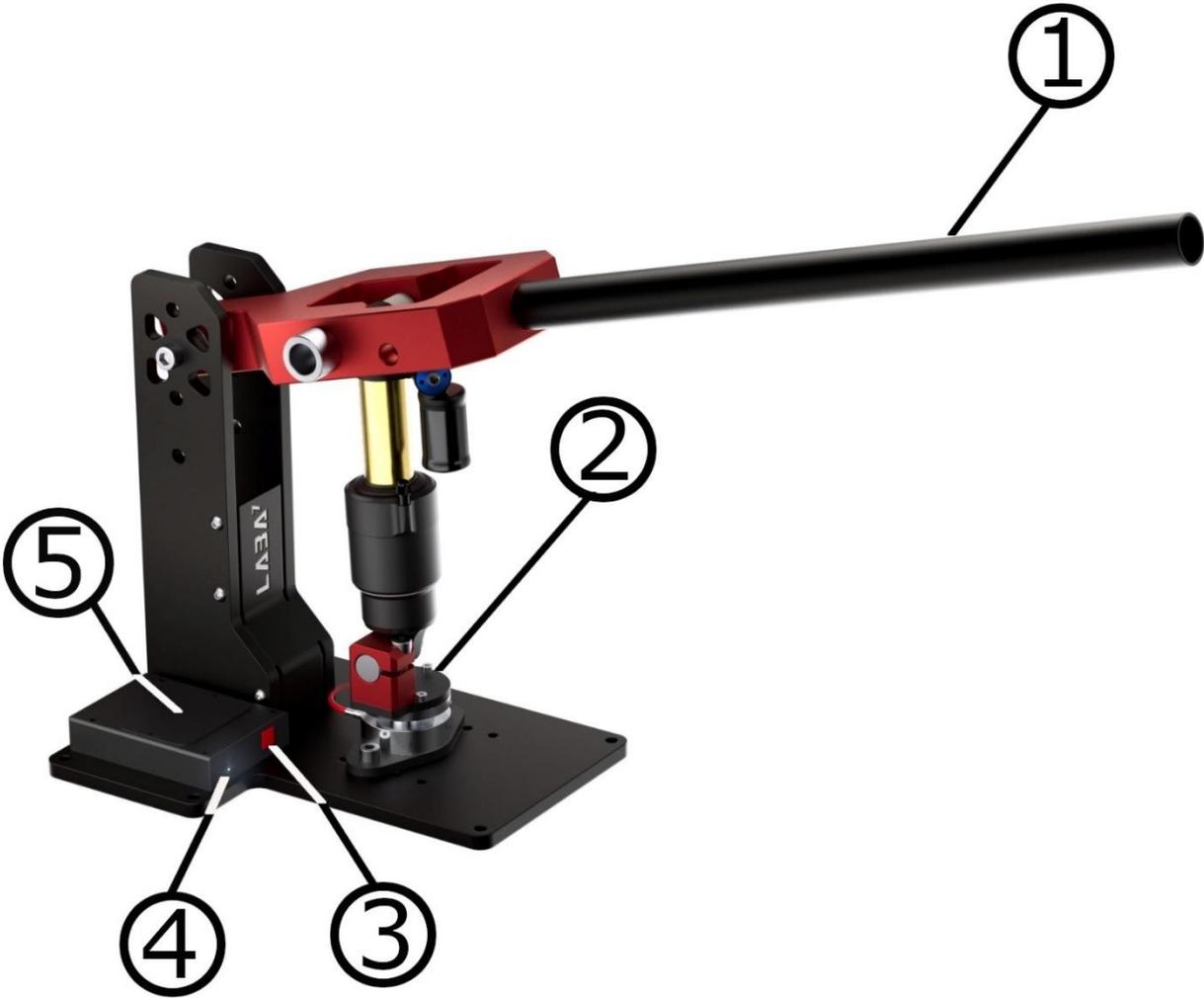
Fig. 1.

1. Handle
2. Power button.
3. LED indicator.
4. Battery compartment.
5. Load cell.

LED indication

The device has built in LED indicator, its placement is shown in the picture above (No. 4).

- Led is OFF – device is off or in sleep mode.

- LED is blinking rapidly every 1 second – device is in connection mode, waiting for the application to connect.

- LED pulses smoothly – device is connected to the application, and measurement is in progress.

6.   Accessories

6.1.   mountings

Fig. 2.

For user convenience, LABA7 includes a variety of adapters for different MTB shocks, such as:

- Trunnion shocks – 55mm, M10x1.5.
- Strutmount – M8
- FOX Brain – 81 mm.
- Fox Brain 2.0 – 73 mm.
- Top eylet mount: 8/10/12/12.7,15 mm.
- Bottom eyelet mount: 8/10/12/12.7/15 mm.

7.   Preparation for use

7.1.   Assembling the device

LABA7 MTB shock tester require very little assembly after unpacking. The user only has to screw in the handle (nr.1, Fig.1) and install the batteries into the battery compartment (nr.5, Fig.1).

8.   First launch

After the device is fully assembled, and batteries are installed, user must download the app named "LABA7 Hand Dyno" from the Appstore or Google play store and link the device to the app.

⚠️ ATTENTION: Bluetooth and location services must be turned on.

1. Place the device on the flat-leveled surface.

2. Turn on the app.

3. Turn on the device by pressing red button (No.3, Fig.1)

4. In the app, press ☰ then SETUP DEVICE ❯ and select your hand dyno.

9.   Testing MTB shock absorber

To test the shock absorber, user has to install the damper with the right adapters to the Hand dyno, start the app and start testing. To test the damper, user has to use the handle(No.1, Fig.1).Push the handle down for the absorber to generate force.

10. LABA7 Hand Dyno app

All the control and output of the Hand Dyno works via LABA7 Hand Dyno app on your phone.
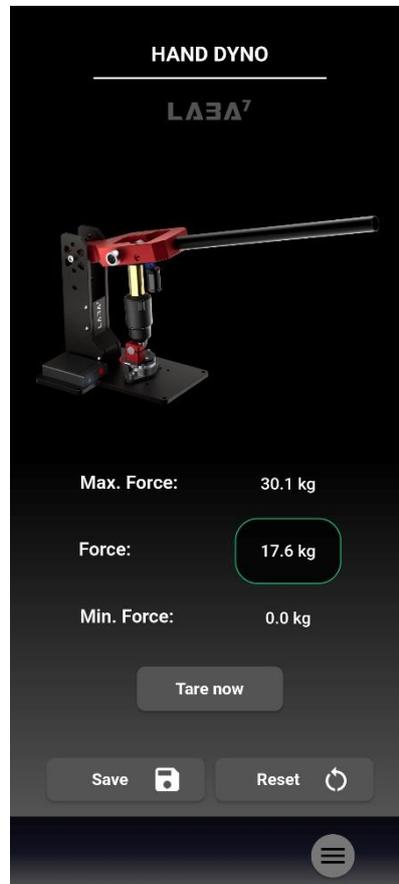
Fig. 3.

- Tap and swipe to move through the app.

- App works with Android and iOS platforms.

- App shows the battery status of the device

- App shows measurements current force, min. force, max. force

10.1. Testing page of the Hand Dyno app

The app represents 3 measurements in the testing page of the app: Max. force, min. force, force

Fig. 4.

10.2. Setup device

1. Go to settings tab in the app.
2. Press "setup device".
3. Select the device.

Bluetooth loading time can take up to 10s.

10.3. Navigation

- Press 🏠 to get back to the home screen.
- Press ← to get back to the previous screen.
- To open the settings menu, press ☰ in the lower right corner of the app.

10.4. Tare and reset

To tare the device, user has to press `Tare now` button in the testing page. To reset the measurement, user has to press `Reset ↺`

10.5. Options

In options menu the user can select between imperial and metric measurement systems. To do this, just press on the measuring system and select your desired one.

10.6. Calibration

For the best accuracy over time, the user is allowed to calibrate the hand dyno by himself. To do it, some object with exact known weight is needed (more than 20kg). This feature is for experienced users only, the user takes the responsibility for proper calibration of the scales.

1. In settings menu, press calibration. The warning message will pop up. If the user wants to proceed further, press **continue**.

2. Press `Tare Now`

3. Put the object on the load cell with the exact known weight.

4. Enter this weight value in the app.

5. Press [Calibrate]

10.7. Reports

The app is able to save reports of every absorber user has done measurements with. To do this, press [Save 🖫] which is in the lower left side of the app. Enter the name and comment (if needed), and press save. The reports can be found in the settings, saved reports.
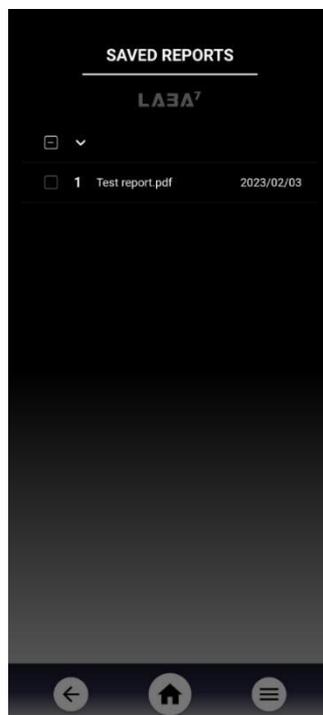
Fig. 5.

The app gives the user possibility to share and delete saved reports. To do this, go to saved reports; after selecting one or more reports, share ⬱ and delete ☐ icons appear.

11. Troubleshooting

11.1. Possible problems and solutions

Problem	Possible solution
Apps does not see the Hand Dyno	Check if the Bluetooth is enabled on the phone.
App does not see the Hand Dyno	Check if the batteries are ok.
The device does not turn on.	Check if the batteries are full and if they are installed correctly.
Apps does not see the Hand Dyno	Check if the device is active. Blue light should be flashing
App does not connect to the hand dyno, although it is visible.	Restart the app and the device.
App does not connect to the hand dyno.	Check if location services on the phone are turned on.

11.2. Malfunctions

Malfunction	Possible solution
Although no absorber is installed to the dyno, it shows force above 0.	press "Tare now"
After zero tare, the app still does not show 0 force.	Go to the settings, calibrate and complete steps from paragraph 10.6
App shows incorrect force.	Go to the settings, calibrate and complete steps from paragraph 10.6
The force values are stuck in the app.	Restart the app and Hand Dyno.

12. Maintenance

Changing the batteries

When the voltage of the batteries is getting low, the user gets a notification 🔋 about low battery in the app near the force. The battery compartment placement is shown in paragraph 5.1 (No. 5). Unscrew 2 screws holding the battery compartment lid, open it. Install the batteries by following polarity instructions printed on the battery compartment, put the lid back again.

13. Warranty information

LABA7 car scales are covered for 1 year of manufacturer warranty starting from the date of purchase and it covers any manufacturer-related failures during that period.

WHAT IS NOT COVERED

ALTERATION, MISUSE, OR ACCIDENT DAMAGE

Examples are:
- Failure to operate the device in accordance with the Owner's manual.
- Collision, fire, theft, freezing, vandalism, riot, explosion, or objects striking your device.
- Alteration of your device, including software programming or other components.
- Damage caused by improper maintenance or failure to follow the recommended maintenance schedule.

The repair of damages that are caused because parts or services used were not those prescribed in this manual's recommended maintenance schedule is not covered under warranty. It is the owner's responsibility to maintain the device as more fully set forth in and in accordance with the maintenance schedules outlined in this manual.

MODIFICATIONS

Damage or performance problems resulting from modifications to your device are not covered under warranty.

Examples of modifications:
- Altering any mechanical parts or software programming.

The manufacturer is not responsible for any damages to the device during the transportation. During accepting the shipment, please inspect the package for any visual damage. If the package is damaged, do not accept it.

14. Contact

If you have further questions about the product or need help with the installation, our technical staff will be happy to help you. Contact information can be found on our website www.laba7.com.

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