PRAXISDIENST EasyForce Digital Dynamometer Instruction Manual

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EasyForce Digital Dynamometer
Instruction Manual

Contents

EasyForce Digital Dynamometer

Article numbers covered 2009003, 2009006

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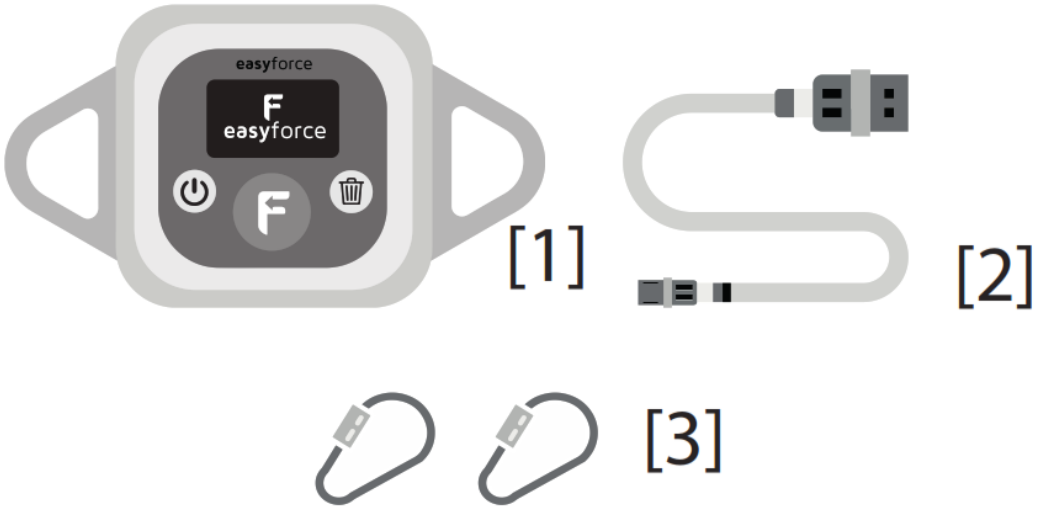


First use

Charge the device according to the instructions below for two hours before first use.

Charging the device

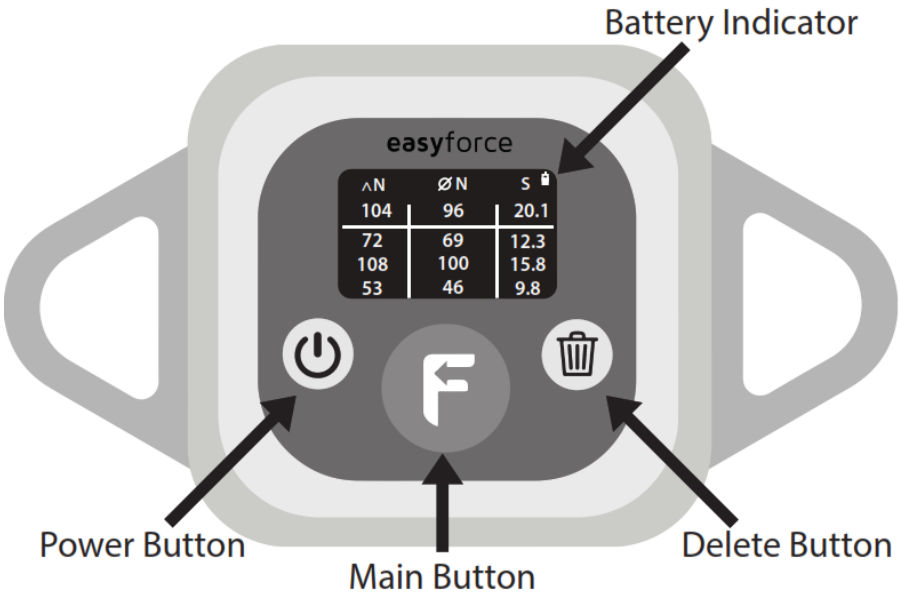
To charge the device, connect the USB-A connector on the charging cable [2] to a USB power outlet and connect the USB-B connector to the sensor unit [1]. Only USB power plugs with the markings shown on figure [4] may be used for charging.

Addons

A wide range of addons, such as handles and straps, can be attached to the device using carabiner [3] to measure force in different muscles.

Use the carabiner to attach the EasyForce to addons. Make sure the addon can move freely after being attached to the EasyForce.

Buttons and indicators



Set Measurement unit

To set the measurement unit follow these steps:

Step 1 – Make sure the device is turned off. Press and hold the main button and then press the power button to enter the measurement unit selector. This will display measurement units on the screen [5].

Step 2 – Press the main button to toggle between measurement units.

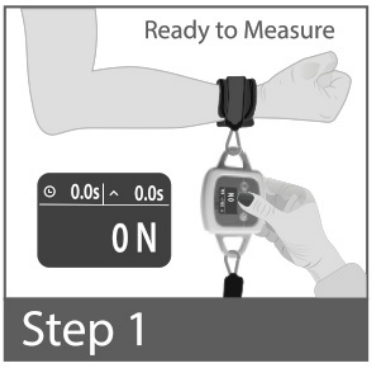
Step 3 – Press the power button to select the highlighted measurement unit.

Basic Operation

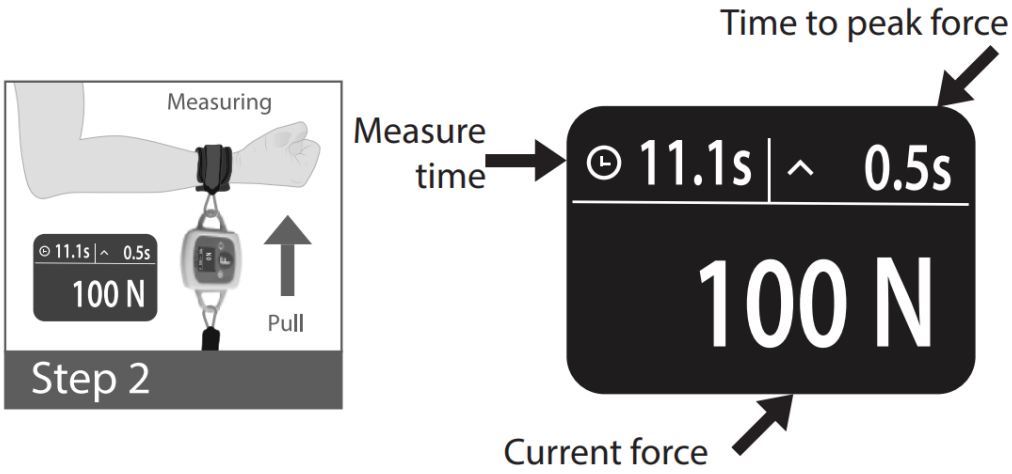
Before performing a measurement, attach suitable addons and get the patient in the starting position and then power the device on. To perform a measurement, follow these steps:

Step 1 – With the patient in position and the device powered on, press the main button to enter measurement mode.

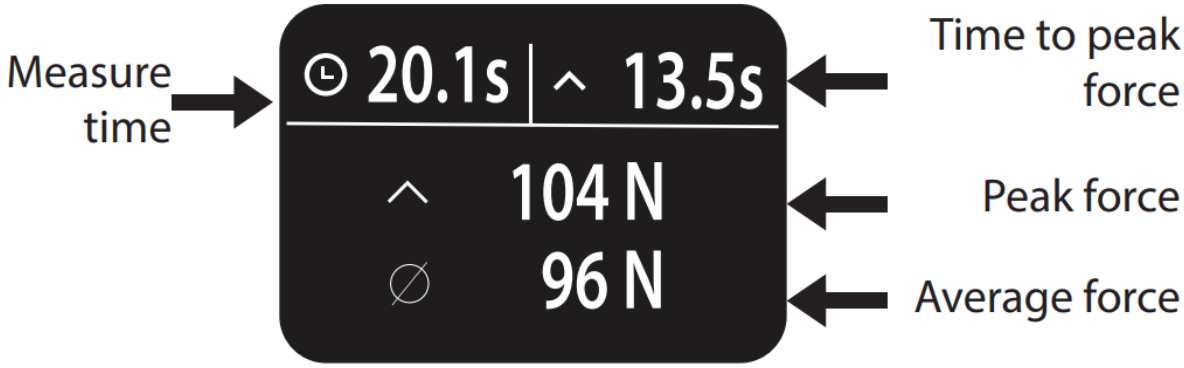
The time values will blink.



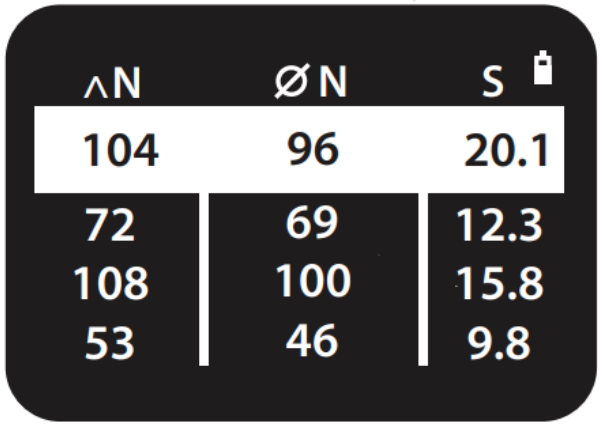
Step 2 – Start measurement either by pressing the main button again or instruct the patient to start pulling. Measurement will automatically start when the force reaches 5 N for more than 0.5 s.



Step 3 – Stop measurement either by pressing themain button or instruct the patient to stop pulling. When the force drops below 1 N the measurement will automatically stop.



Step 4 – To save the measurement and return to the history view, press the main button. Alternatively, press the delete button to return to the history view without saving.
Press the power button to switch off the device. If the device is idle for two minutes, it will automatically shut down to conserve power.
To delete measurements from the history view, press the delete button once to highlight the latest measurement [6], and press the delete button again to delete the entry. Pressing any other button cancels the deletion.



Measurement Guidelines
For consistent accuracy, ensure that addons are placed in the same location each time you measure. You should also ensure that joint angles are the same Ensure no force is applied to the device before entering measurement mode (step 3).
Do not hold the main body of the device during measurement. Only addons attached by carabiners should be connected to the device during measurement. Addons should be connected to the body part being measured on one side and can be fixated or held by the therapist on the other side.
Measurement Timeout – If a measurement takes more than three minutes it is aborted.
Error Modes
Overload Warning Signal – An overload warning symbol flashes when the rated force is exceeded [7]. An “e” will be saved in history to indicate an error has occurred.

[7]

Warnings

- Disconnect the USB cable before cleaning.
- DO NOT immerse in liquid, sterilize, or apply solvent, acids or oil to the device.
- DO NOT subject the device to extreme heat or cold.
- DO NOT use a broken unit.
- NO modification of the equipment is allowed.
- Only use addons and carabiners rated for at least 150 kg.
- Only use hook shaped carabiners.
- Only use fixation points rated for at least 150 kg.
- DO NOT apply any load to the device during stoarge.
- Handle device with care and be careful when attaching/detaching addons to avoid risk of pinching.
- DO NOT exert more than the rated force. Contact retailer if device has ben subjected to more than 120% of rated force.

Audio signals
Double beep – Powering on or off device; Start or Stop of measurement; Device timeout.
Single Beep – Button Press; time counter in measurement mode.
Continuous Beep – Overload warning.
Care and Maintenance
To clean the device, wipe it with a cloth damped in 70% ethanol/isopropyl alcohol solution.
Inteded use
The Easyforce is intended to facilitate assessment of muscle strenght.
Contraindications
The Easyforce must NOT be used:

- Directly on injured skin.
- In oxygen-rich environment.
- Where increased levels of electromagnetic, ionizing or particle radiation are present.

Specifications

Product Name	Easyforce
Operating Environment	Not for home use
Operating Temperature	10°C/50F to 45°C/113F
Storage Temperature	0°C/32F to 45°C/113F
Enclosure	IP4X
Operating Time	3 weeks (at 12 min/day)
Maximum rated force	150kg
Stand-by time/charging time	15 weeks/5 hours
Accuracy	±1%
Charger specifactions	5VDC, >0.2A, USB Micro
Manual Revision	2009-1MA001-01

Service and Warranty

The EasyForce has a twelve (12) month warranty from the date of purchase. The warranty is void if the device has been tampered with, exposed to 120% of rated force or in other ways used outside of specifications. Please contact your vendor for service and maintenance issues.

Additional Material

Please visit https://www.meloqdevices.com for additional material.

Explanantion of symbols

 Consult instructions for use

Serial number

Article number

 Type B applied part according to EN60601-1

 Product must be collected separately. Use facilities that are authorized to collect this type of waste.

Manufacturer
Meloq AB
Drottning Kristinas väg 53
114 28 Stockholm
Sweden
info@meloq.se
Made in Sweden

Documents / Resources

	**PRAXISDIENST EasyForce Digital Dynamometer** [pdf] Instruction Manual 2009003, 2009006, EasyForce Digital Dynamometer, EasyForce, Digital Dynamometer, Dynamometer

References

- **EasyAngle® and EasyForce® - Accurate Digital Measurements – Meloqdevices**
- **EasyAngle® and EasyForce® - Accurate Digital Measurements – Meloqdevices**