
Leeb-Hardness Tester

dynaROCK II



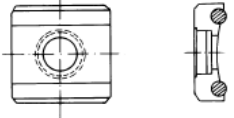
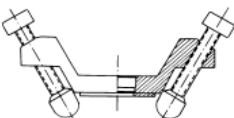
Standard Delivery Scope

- ◆ Tester with impact device & Cable
- ◆ USB-Charger with connection cable
- ◆ Case
- ◆ Manual
- ◆ Certificate
- ◆ Test block
- ◆ Remote-Software



Accessories

- ◆ Support rings
- ◆ Remote-Software
- ◆ Mobile Printer
- ◆ Leeb-Test blocks
- ◆ Carry bag

No.	Type	Sketch of the placement ring	Remarks
1	Z10-15		For convex surfaces R10 – R15
2	Z14.5-30		For convex surfaces R14.5 – R30
3	Z25-50		For convex surfaces R25 – R50
4	HZ11-13		For concave surfaces R11 – R13
5	HZ12.5-17		For concave surfaces R12.5 – R17
6	HZ16.5-30		For concave surfaces R16.5 – R30
7	K10-15		For spheres SR10 – SR 15
8	K14.5-30		For spheres SR14.5 – SR 30
9	HK11-13		For hollow bodies SR11 to SR13
10	HK12.5-17		For hollow bodies SR12.5 to SR17
11	HK16.5-30		For hollow bodies SR16.5 to SR30
12	UN		For convex surfaces, Radius adjustable R10 - ∞

Available Impact Devices – Type D

- ◆ Standard for most testing tasks
- ◆ Min. workpiece mass: 2 kg (5 kg without stable underlay)
- ◆ Min. workpiece thickness: 25 mm (3 mm with coupling)
- ◆ Max. surface roughness (Ra): 2 μm



Available Impact Devices – Type DC

- ◆ Short impact device
- ◆ Min. workpiece mass: 2 kg (5 kg without stable underlay)
- ◆ Min. workpiece thickness: 25 mm (3 mm with coupling)
- ◆ Max. surface roughness (Ra): 2 μm



Available Impact Devices – Type DL

- ◆ Thin impact device (Ø 4,2 mm)
- ◆ Min. workpiece mass: 2 kg (5 kg without stable underlay)
- ◆ Min. workpiece thickness: 25 mm (3 mm with coupling)
- ◆ Max. surface roughness (Ra): 2 µm



Available Impact Devices – Type D+15

- ◆ Inductor 20 mm relocated, small contact surface 11 x 14 mm; for measuring in slots and indentations
- ◆ Min. workpiece mass: 2 kg (5 kg without stable underlay)
- ◆ Min. workpiece thickness: 25 mm (3 mm with coupling)
- ◆ Max. surface roughness (Ra): 2 µm



Available Impact Devices – Type C

- ◆ Impact device with lower impact energy for measuring on hardened surfaces
- ◆ Min. workpiece mass: 0,5 kg (1,5 kg without stable underlay)
- ◆ Min. workpiece thickness: 10 mm (1 mm with coupling)
- ◆ Max. surface roughness (Ra): 0,4 μm

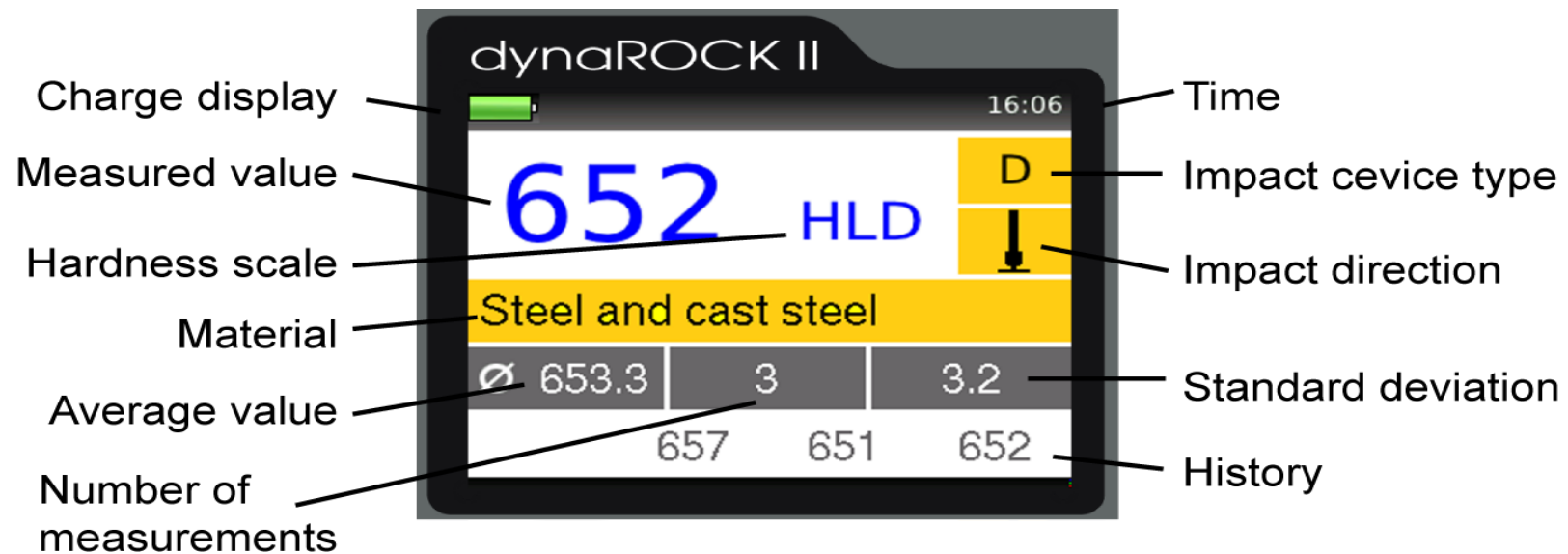


Available Impact Devices – Type G

- ◆ Impact device with higher impact energy for measuring on castings and forgings
- ◆ Min. workpiece mass: 5 kg (15 kg without stable underlay)
- ◆ Min. workpiece thickness: 70 mm (10 mm with coupling)
- ◆ Max. surface roughness (Ra): 7 μm



Display / Measuring Window



Key Functions



Switching on/off the device.



Changes the impact direction



Changes the hardness scale.



Changes the material.



Delete last measurement point



Display statistics



Into the main menu



Cursor keys

With these keys, menu items are selected and the required values in fields set-adjusted.



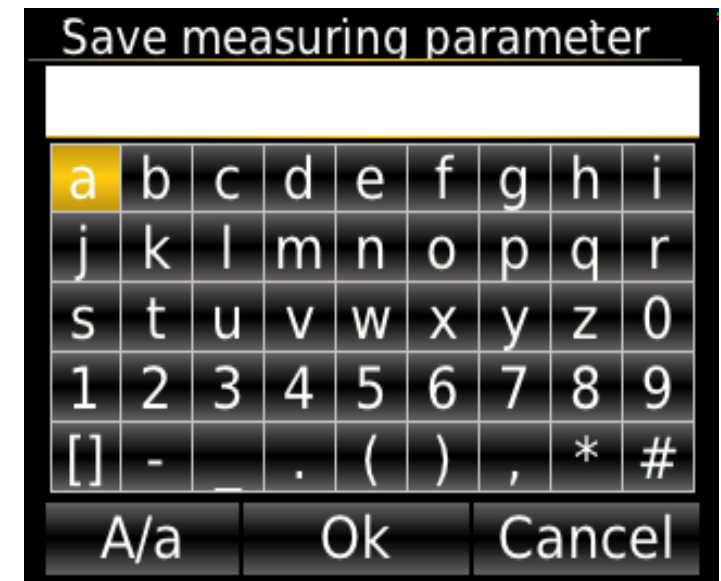
With this key, the current function is exited. The higher-level menu item is accessed.



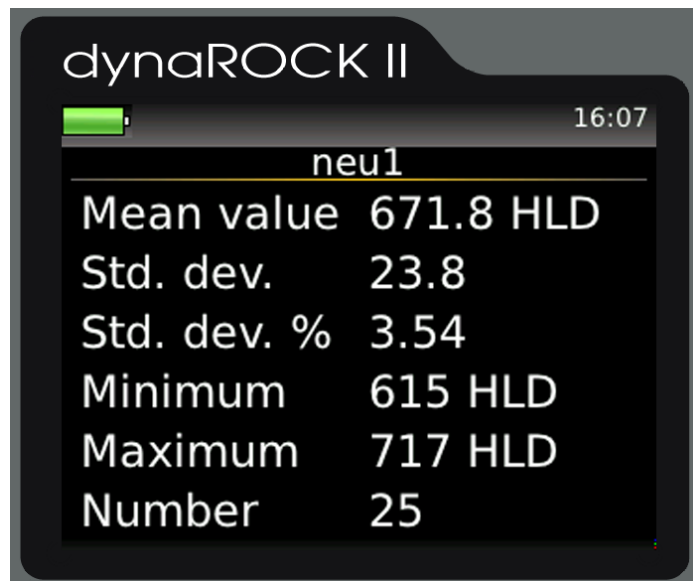
The processing is completed with this key in a field, or a subordinate priority menu item is selected.

Text entry

- ◆ Choose letters with the cursor keys; acceptance with Enter
- ◆ A/a : Switch Caps / lower case
- ◆ Ok : Finish text entry
- ◆ Cancel : Cancel the text entry
- ◆ Key DEL : Delete last letter



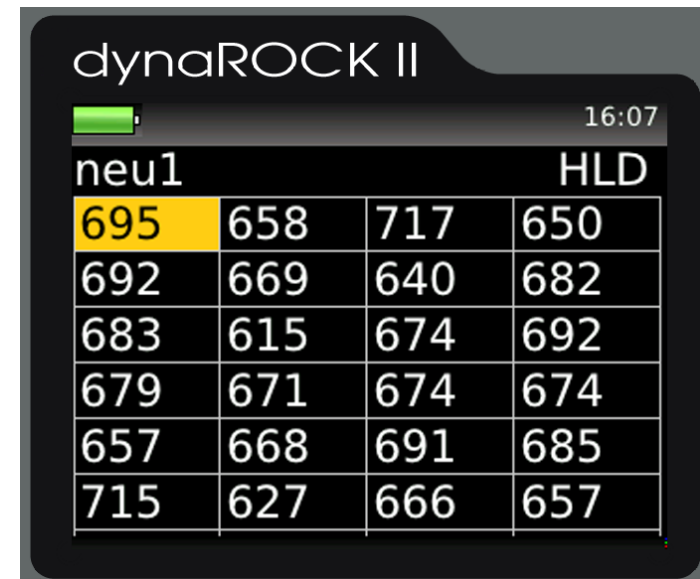
Statistic



The screen displays the title 'dynaROCK II' at the top left and a battery icon with the time '16:07' at the top right. Below the title, the label 'neu1' is centered. The statistics are listed as follows:

Mean value	671.8 HLD
Std. dev.	23.8
Std. dev. %	3.54
Minimum	615 HLD
Maximum	717 HLD
Number	25

1x Key function STAT



The screen displays the title 'dynaROCK II' at the top left and a battery icon with the time '16:07' at the top right. Below the title, the label 'neu1' is on the left and 'HLD' is on the right. A 2x4 grid of values is shown, with the first cell (695) highlighted in yellow.

neu1				HLD
695	658	717	650	
692	669	640	682	
683	615	674	692	
679	671	674	674	
657	668	691	685	
715	627	666	657	

2x Key function STAT

- ◆ Obviously incorrect values can be deleted separately

Measuring Parameters

- ◆ For periodic measuring tasks the following parameters can be saved:
 - Material
 - Hardness scale
 - Impact direction
 - Upper and lower limit for the rating 'GOOD'
 - Test report printout setting (On or Off)
 - The number of values which should be used for the statistical evaluation

Hardness Conversion

- ◆ The conversions are determined empirical and due to this only available for some materials:
 - Steel and cast steel
 - Heat treatable steel, tempered
 - Heat treatable steel, annealed
 - Heat treatable steel, hardened
 - Cold work steel
 - Stainless steel
 - Gray iron
 - Spheroidal iron
 - Aluminium casting alloy
 - Brass (Copper-Zinc-Alloy)
- ◆ Not all conversions are available for every impact device (Manual 15)

Measuring range

- ◆ Standard material steel & cast steel with impact device D:

20 – 68 HRC

38 – 99 HRB

81 – 654 HB

81 – 955 HV

- ◆ For more please see 15 appendix in the manual

Memory Functions

- ◆ 500,000 values can be stored incl. The following parameters:
 - Impact device type
 - Material
 - Hardness scale
 - Upper and lower limit of the rating 'GOOD'.

Data Output

- ◆ Mobile Printer
- ◆ Remote-Software
- ◆ USB Flash Device

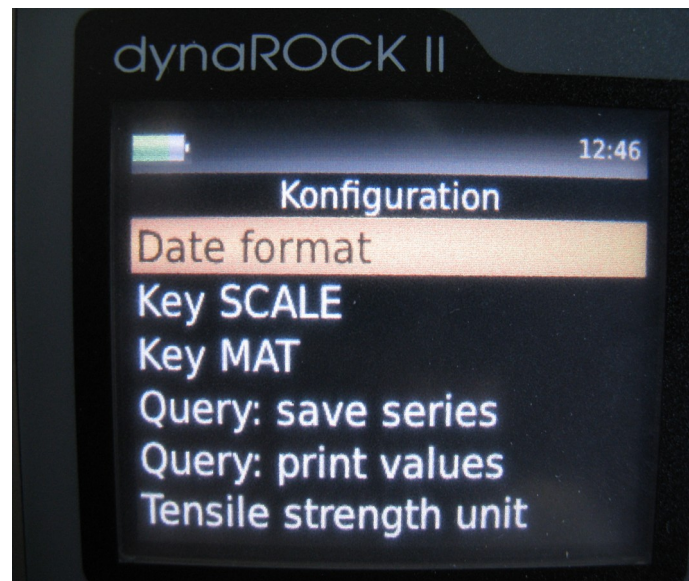


Systemeinstellungen (Menu → System)

- ◆ Available languages:
German, English, Spanish,
French, Italian, Polish,
Russian, Turkish
- ◆ Impact device calibration via USB drive,
not with every version!



Configuration (Menu → System → Configuration)



System Settings (Menu → System → Info)

- ◆ Version of the Firmware
- ◆ Version of the Hardware
- ◆ Serialnumber of the impact device
- ◆ Measuring counter with impact device type



Practical Part

- ◆ Measurements on hardness test blocks
- ◆ Measurements with support rings
- ◆ Measurements on thin-walled specimen
- ◆ Measuring with different impact devices



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