



## lineScale 3

PPE Certified (CE and UIAA)
Electronic Bluetooth Load Cell

### **Quick Start Guide**

QSG ver



This quick guide will get you started with the basic, most frequent operating functions.

Please refer to the overleaf instructions for MENU operation and personal setup.

You will find a detailed users manual, FAQs, and knowledge-base on <a href="https://www.linegrip.com/LS3">www.linegrip.com/LS3</a>





Short press to switch on / off.

Long press (when powered on) to enter the settings and configuration menu.

- Log settings
- Date & Time settings
- User settings
- Service Menu (Operate carefully in this menu! Wrong settings can render the LS3 inoperative!)



Short press to toggle the scan rate.

- 10Hz (100ms)
- 40Hz (25ms)
- 640Hz (1.5ms)
- 1280Hz (0,75ms)

Note: BT connection to smartphone app is possible with 10Hz and 40Hz setting only.

Long press to start onboard logging with the settings defined in the "LOG" Menu.

In the "User Settings" you may activate the "Auto Power Off" function, which is disabled by default. This will power off the LS3 automatically after a specified amount of time has passed since the last button press or load change was registered. The "Display Power Off" function is set to 5 minutes by default because it will not affect or interrupt onboard logging or BT connection. When the display is blanked the LS3 will run about 4 times longer on a single battery charge. Please refer to the online knowledge base or the downloadable PDF user manual for detailed operating instructions and LOG function explanation.



Short press press to toggle display units.

- kN (kilonewton)
- lbf (pounds force)
- kgf (kilograms force)

Long press to toggle PEAK mode. The display will freeze at the highest value reached since the PEAK mode was activated.



Short press to set relative zero at the current load value (will work in REL mode only).

Long press to toggle REL(ative) / ABS(olute) mode. REL mode will show load value relative to the current set relative zero.

ABS mode will always show the true / real load value relative to the calibrated absolute zero.



# NOTICE FOR PPE APPLICATION Please fully read and understand the included PPE manual before using the LineScale-3 for PPE application!



#### **Technical Specifications**

- Working load limit (WLL): 30 kN (6700 lbf)
- Minimum breaking strength (MBS): 90 kN (22000 lbf)
- Recommended PPE max. load: 10 kN (2200 lbf)
- Max. measuring range: -10 % to 110 % of WLL
- Sensor scan rate (cycle rate): 1280Hz, 640Hz, 40 Hz, 10Hz
- Weight (incl. battery): 520 g (18.3 oz)
- Measurements (L x W x T): 190 x 90 x 20 mm
- Material body: High strain aviation aluminum alloy LY12CZ
- Display units: kgf / lbf / kN
- Display division (resolution): 1 kg / 2 lbf / 0.01 kN
- Measure error: less than ±0.5% (@3kN-15kN)
- $\bullet$  Operating temperature: -10 to +40  $^{\circ}\text{C}$
- $\bullet$  Storage temperature: -20 to +70  $^{\circ}\text{C}$
- Relative humidity: 10% to 80% RH
- Power: 3.7V 1400mAh rechargeable Li-lon battery pack
- Operating endurance: ca. 50 hours continuous (24h w. bluetooth enabled)
- Bluetooth 4/5 interface (w. smartphone app)
- Protection Class: IP65 (splash & rain proof, do NOT submerge in water!!!)



Your devices Bluetooth MAC-Address is engraved above the display. This is used for unit identification in the smartphone app when multiple units are in Bluetooth reach, and it is also the serial number of your unit.

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Scan QR-code for detailed users manual, App download, FAQs, and knowledge-base



When in Main-Menu, the top most row will display the date, firmware version, and time.

01.10.21	V1.827	16:45	
Main Menu	Sub Menu	Item	Buttons function for navigation and setting
	(w. sample setting)	(possible settings)	
Log	Clear log memory NO	Sure delete all logs? NO YES	When enter item, NO is highlighted, press   to return without deleting. Select ▼ YES and press  to clear log memory and return to Sub-Menu
	Onboard memory log ON	Onboard memory log ON OFF	When enter item, current setting is highlited Select ▲▼ ON or OFF press ← to set and return to Sub-Menu
	Overwrite oldest log ON	Overwrite oldest log ON OFF	When enter item, current setting is highlited Select ▲▼ ON or OFF press   to set and return to Sub-Menu
	Capture start trigger 1.00 kN	Set start trigger x.xx 00000 for none	When enter Item "value" is highlited  press ← to set value  first digit is highlited
	Capture end trigger 12.00 kN	Set end trigger x.xx 00000 for none	change digit with ▲▼ and ← to set next digit is highlited change digit with ▲▼ and ← to set
	Max log length 180 sec.	Set max log length xxxxx	repeat same for all digits on last digit press ← to set value and return to Sub-Menu
	Pre-capture rec. time 10 sec.	Pre-capture recording xxxxx 00000 for none	Enter 000 for no triggers or recording press ← to set and return to Sub-Menu
	Return		Press ← to exit Sub-Menu, and return to Main-Menu
Date/Time	Date format	Date format dd.mm.yy yy/mm/dd	Same button function as set value
	Date 01.10.21	Set date xx.xx.xx	Same button function as set value
	Time 16:45:00	Set time xx.xx.xx	Same button function as set value
	Return		Press ← to exit Sub-Menu, and return to Main-Menu
User Settings	Auto power off 5 min.	Set auto power off Off, 1, 3, 5, 10, 20, 30, 60	Same button function as select value
	Set display power off 300 sec.	Set display power off Off, 10, 30, 60, 100, 200, 300, 600	Same button function as select value
	Auto zero tracking 1 div.	Set zero tracking Off, 0.5, 1, 2, 3, 5, 10 NONE	Same button function as select value
	Return		Press ← to exit Sub-Menu, and return to Main-Menu
Service	Set absolute zero	Cal. abs. zero now? NO YES	When enter item, NO is highlited, press   to return Select ▼ YES press   to cal abs. 0 and return to Sub-Menu
WARNING Operate carefully in this menu! Wrong settings can render the LS3 inoperative!	Simple calibration	Start simple cal now? NO YES	When enter item, NO is highlited, press   to return  Select ▼ YES  press   to start simple 2-point calibration
	Linear calibration	Start linear cal now? NO YES	When enter item, NO is highlited, press   to return Select ▼ YES press   to start linear 3-point calibration
Please note: There is NO factory reset option! If the calibration parameters are altered to invalid values the LS3 will no longer show accurate loads. A professional calibration will be necessary.	Calibrate acceler. 9.792 N/kg	Set cal. accel.	Same button function as set value
	User acceleration 9.807 N/kg	Set user accel. x.xxx	Same button function as set value
	Battery voltage 3.985 V	No setting, value for information only.	Note:
	AD internal code 3513	No setting, value for information only.	Press the MENU button at any time during item setting to abort setting operation and exit to the SUB-Menu without saving any changes to the current item ;-)
	Bluetooth MAC addr. F0:F8:F2:6A:D1:25	No setting, value for information only.	
	Return		Press ← to exit Sub-Menu, and return to Main-Menu
Exit			Press    to exit menu, and return to display screen