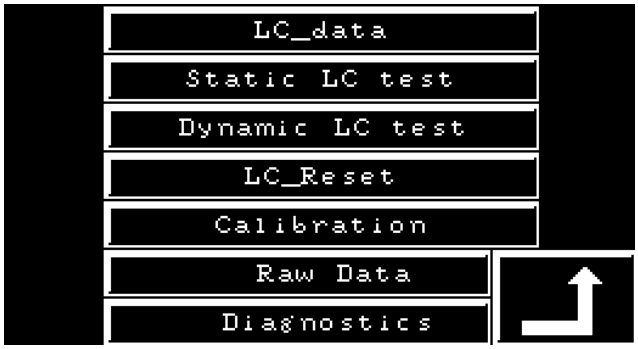


SERVICE MENU 2

LC data:
After touching this button the Load-cell data screen appears. In that screen it is possible to view the weighing signals from the load-cells during running of the system, including the 0 weighing signals.

Static LC test:
After touching this button the Static load-cell test screen appears. In that screen it is possible to test the individual load-cells when the system is not running.

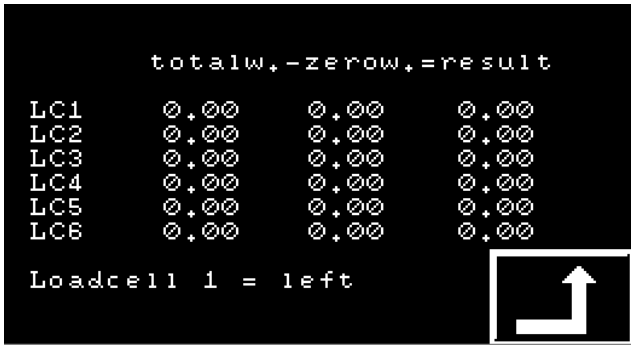
Dynamic LC test:
After touching this button the Dynamic load-cell test screen appears. In that screen it is possible to test the individual load-cells when the system running.

LC reset:
After touching this button the Load-cell reset screen appears. In that screen it is possible to set the zero point of the load-cells.

Calibration:
After touching this button the Calibrating load-cells screen appears. In that screen it is possible to calibrate the load-cell by weighing and entering the weight of an egg with a known weight.
Besides calibrating in this screen it is also possible to fine tune load-cells to eliminate small continuous deviations between measured weight and real weight of eggs. See Fine-tuning load-cells for fine-tuning instructions.

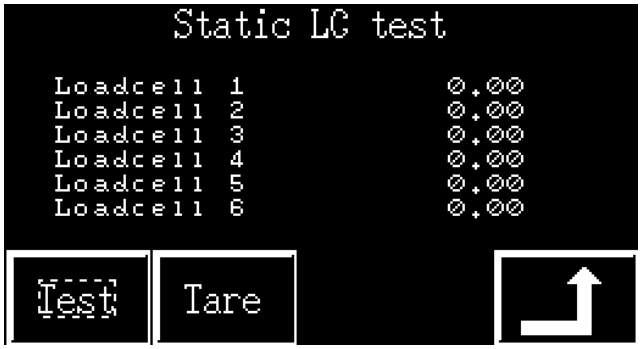
Raw data:
After touching this button the Raw data screen appears. In that screen the digital signals of the weighing printed circuit board to the PLC is visualized. This screen is intended to be used by Prinzen engineers for trouble shooting.

Diagnostics:
After touching this button the Diagnostics screen appears. In that screen the data for correcting the digital signals of the weighing printed circuit board is visualized. This screen is intended to be used by Prinzen engineers for trouble shooting.



LOAD-CELL DATA SCREEN

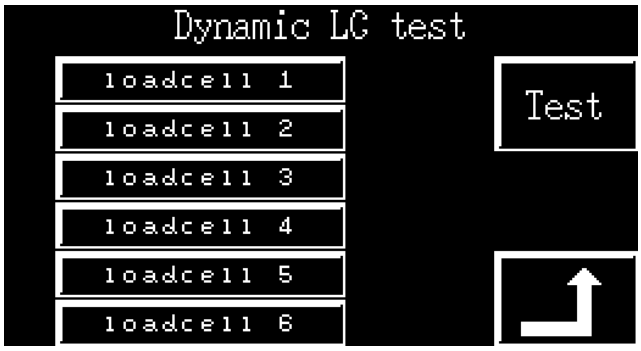
During normal running of the Elgra, here it is possible the see the 0 weighing (zerow) and the egg weighing signals (totalw) from the load-cells (in grams).
The result is the actual weight of the egg and is also shown in the online read out screen.



STATIC LOAD-CELL TEST

With the static load-cell test it is possible to check if the load-cells are functioning correct. First stop the system before performing the static load-cell test.

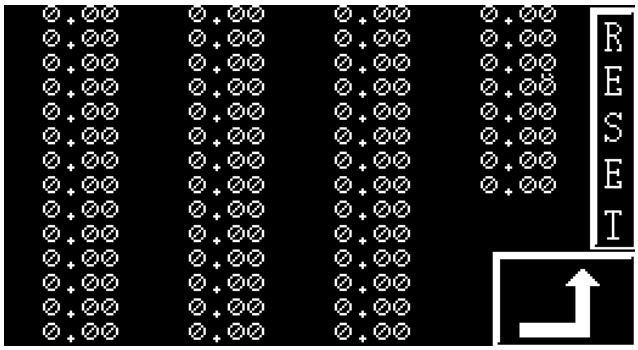
By first pressing the Tare button, the signals from all load-cells are reset to 0.
After this it is possible to test the load-cells with an egg with a known weight. Put this egg on one of the load-cells and press the Test button. The weight on the display (in grams) must be the same as the weight of the egg.

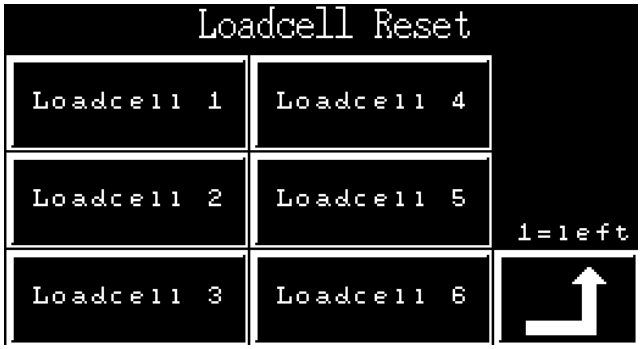


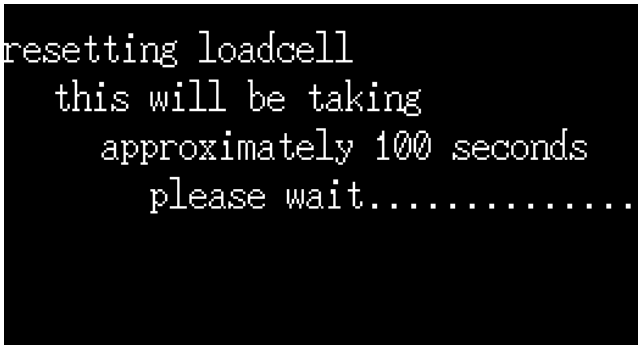
DYNAMIC LOAD-CELL TEST

With the dynamic load-cell test it is possible to check if one load-cell continuously measures the same weight when an egg with a known weight several times passes this load-cell.
It is also possible to check if all load-cells measure the same weight when this eggs passes all 6 load-cells.

By touching one of the load-cell buttons, this button illuminates. It is possible to select more load-cells. All selected load-cells will illuminate. After this, press the Test button to pop-up a screen that shows the values measured by the selected load-cells. After starting the system, the weight (in grams) of the passing eggs on the selected load-cells are scrolling through this screen. By touching the reset button all the values on the screen are reset to 0.





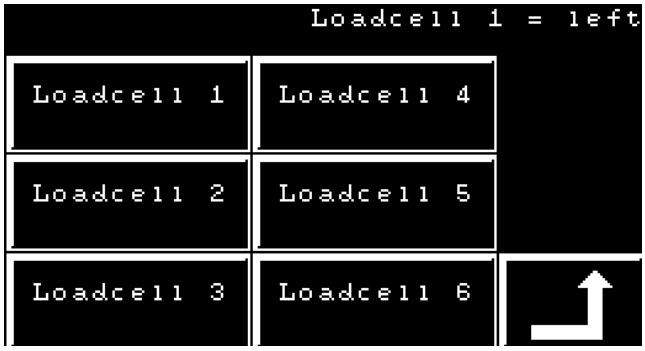


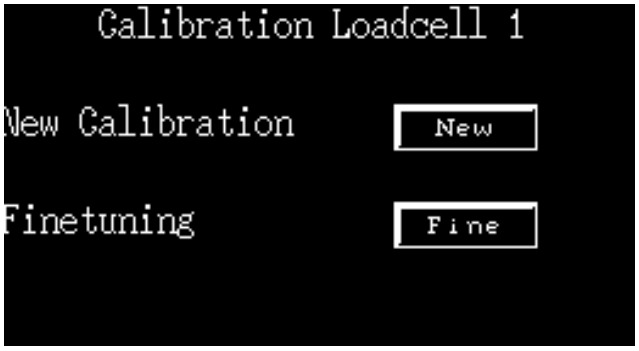
LOAD-CELL RESET

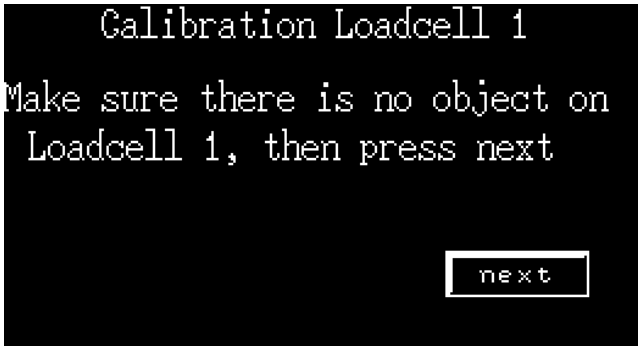
The signal that the load-cell sends to the weighing printed circuit board is influenced by temperature, humidity of the environment, material stress, etcetera.
When the complete system is moved or a load-cell is replaced the load-cells need to be reset. Beside this, the zero point of the load-cell signal changes anyway in the course of time. So once in a while the load-cells need to be reset.

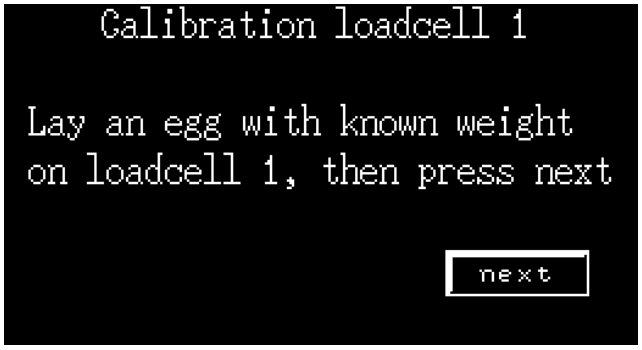
By touching one of the load-cell buttons, this load-cell will be reset.
Resetting of a load-cell takes approximately 100 seconds. Because of this a screen pops up asking you to wait. As long as this screen is active, do not perform any actions with the system. Leave the weighing heads on the load-cells. Leave the power on. Make sure there is no weight on the load-cell and do not touch them.

ATTENTION!
Switching OFF the power during load-cell reset may damage the load-cell controller.







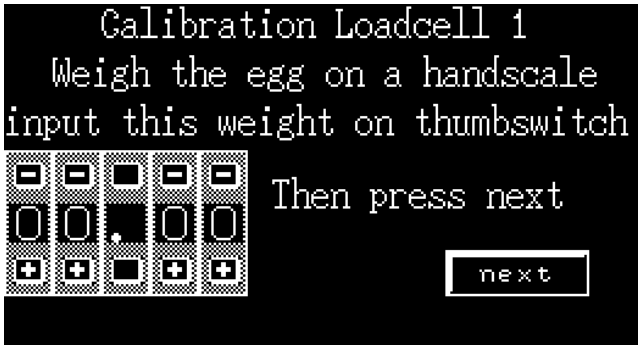


CALIBRATING LOAD-CELLS

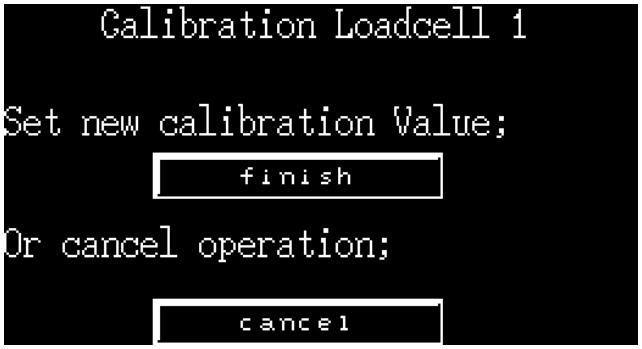
When a load-cell is replaced first this load-cell need to be reset, see load-cell reset for resetting a load-cell.
After resetting the new load-cell needs to be calibrated!

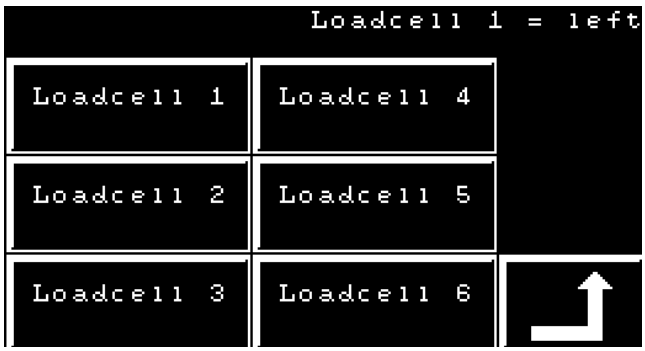
By touching one of the load-cell buttons, this load-cell will be calibrated.
During calibration screens pop up. Follow the instructions on the screens to perform correct calibration:

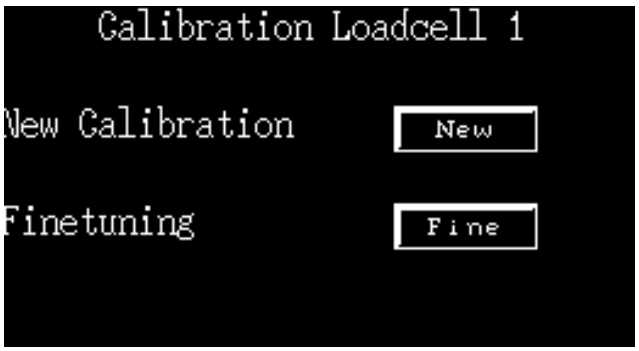
- Touch the load-cell button for the load-cell you want to calibrate.
- Select the New button to perform a calibration.
- Make sure there is nothing present on this load-cell and press the next button.
- Place an egg with a know weight on the load-cell. A heavy egg of at least 70 grams is necessary. Press the next button.

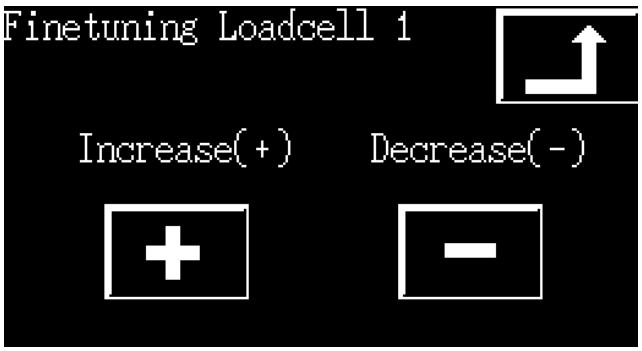


- With the + and – buttons, enter the exact weight of the egg and press the next button.
- Press the finish button to confirm the entered weight and to finish the calibration. By touching the cancel button the data inside the controller remains unchanged and no calibration is performed.
- Remove the egg from the load cell.









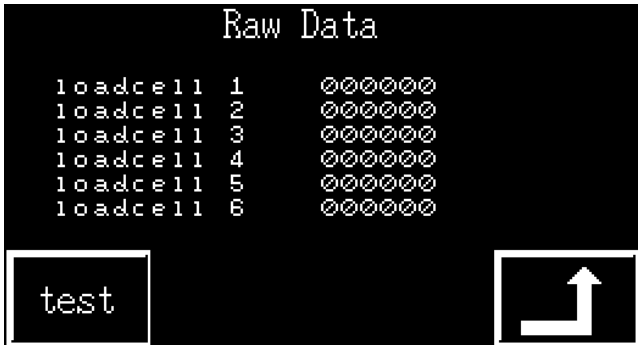
FINE TUNING LOAD-CELLS

The alongside screen is not only used for calibrating of a load-cell, but can also be used for fine-tuning load-cells.
In case of fine-tuning, it is noticed that one of the load-cells continuously weighs eggs a little bit too heavy or too light.

When you want to fine-tune a load-cell, you first need to know the deviation of the particular load-cell. Determine this by weighing an egg with a know weight several times on the particular load-cell. See static load-cell test or dynamic load-cell test.
When the deviation between the real and the measured weight is determined go to the fine tuning (calibration) screen.

By touching one of the load-cell buttons, this load-cell will be fine-tuned. First the Calibration load-cell screen pops up. Select the Fine button for fine-tuning the load-cell.

In the fine tuning load-cell screen press the Increase or Decrease button to increase or decrease the weighing signal.
By touching the Increase button the weighed signal of the load-cell is increased with 0,01 gram.
By touching the Decrease button the weighed signal of the load-cell is decreased with 0,01 gram.
When the weight of egg is for example 70 grams, but the load-cell measures 70,1 grams, touch the decrease button 10 times to correct the weighing signal into 70 grams.

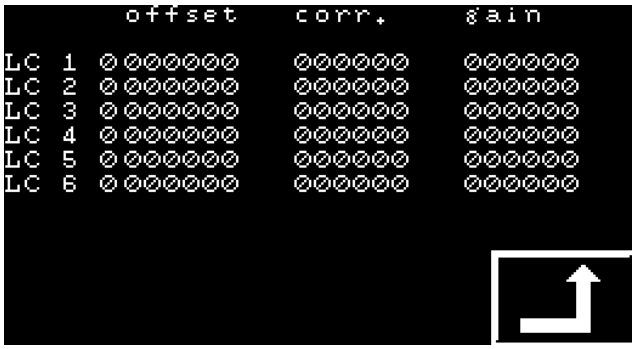


RAW DATA SCREEN

TIP!
The raw data screen is intended for advanced users of the system, like Software engineers or Prinzen Service engineers. When contacting Prinzen service for trouble shooting you may be asked to give the information in the raw data screen.

In the raw data screen the digital signals of the weighing printed circuit board to the PLC is visualized.
Touch the test button to view the digital signals.
When no egg is present on a particular load-cell the digital signal of this load-cell should normally be in between 1000 and 2000.
When an egg is placed on a load-cell, the digital signal on the screen must change.

Directly after a load-cell reset, the digital signal should be in between 1400 and 1500.
When the signal is below 1000 or above 2000, perform a load-cell reset.



DIAGNOSTICS SCREEN

TIP!
The diagnostics screen is intended for advanced users of the system, like Software engineers or Prinzen Service engineers. When contacting Prinzen service for trouble shooting you may be asked to give the information in the diagnostics screen.

The values in the diagnostics screen are intended to be used by software- and service engineers from Prinzen for troubleshooting.
The values for offset, correction and gain may differ a lot. Typical values are:
Offset: Around 3500 for a new load-cell.
Correction: Around 1000.
Gain: In between 8800 and 11000.