

PENKO Engineering B.V.

Your Partner for Fully Engineered Factory Solutions



How to...

Determine what is wrong when the
Indicator shows CCCCCC, =====,
UUUUUU or OOOOOO



PENKO

an ETC Company

If the indicator shows CCCCCC it can mean a couple of things:

- The indicator is not calibrated
- Only one point is calibrated. You'll need at least two points for a valid calibration. For instance if you want to calibrate 100kg, calibration point one will be 0kg (there is nothing on the scale) and point two will be 100kg (put 100kg on the scale)

If the indicator shows ===== it means:

- Max. load is a lower value than what you are currently weighing. Max. load can be changed in the menu.

If the indicator shows UUUUUU it can mean a couple of things:

- The load cell is not connected to the Indicator.
- The load cell is not connected properly to the Indicator.
- The cable of the load cell is damaged and it caused a short-circuit.
- It is possible that there is a fracture in the load cell cable. Use a Multimeter and set it to measure Ohm. Make sure to disconnect the load cell from the Indicator. Measure between +Vexc and -Vexc, the value should be about 420 Ohm (for the actual value check the manufacturer spec sheet under input impedance). Measure between +Sense and -Sense, the value should be about 420 Ohm as well (for the actual value check the manufacturer spec sheet under input impedance). Now measure between +In and -In, the value should be about 355 Ohm (for the actual value check the manufacturer spec sheet under input impedance). If one of these values are not correct or you measure infinite Ohm, replace the load cell.
- When pressing on the load cell and it weighs negative. +In and -In are incorrectly connected. They should be switched around. It is also possible that the load cell is mounted upside-down. Make sure the arrow on the load cell is in the same direction as the weighing force.
- Sense is not connected. Some load cells (most of the load cells from Utilcel or Flintec) have only four wires instead of six. To fix this problem connect a wire from +Vexc to +Sense and another wire from -Vexc to -Sense.
- If you have a new weighing installation, it can be fixated with screws for shipping use. Remove these screws.
- If the load cell is close to the ground it can occur that dirt comes between the load cell and the ground. Causing the load cell to not work properly.
- The load cell had a (large) force in the opposite direction it weighs and it's only showing UUUUUU. Make sure that there is nothing on the load cell, but the load cell needs to be connected to the Indicator. Use a Multimeter and set it to mV DC. Place the +pin of the



Multimeter on the +In of the indicator and the –pin of the Multimeter on the –In of the Indicator. A correct working load cell should give a reading between -0.01mV and 0.01mV. If it's well below this value your load cell is permanently damaged and needs to be replaced.

- If there is a junction box in-between the load cell and the Indicator. And the junction box is located in a moist area, it is possible there is water in it and it short-circuited the load cell.

If the indicator shows OOOOOO it can mean a couple of things:

- The load cell is not connected to the Indicator.
- The load cell is not connected properly to the Indicator.
- The cable of the load cell is damaged and it caused a short-circuit.
- It is possible that there is a fracture in the load cell cable. Use a Multimeter and set it to measure Ohm. Make sure to disconnect the load cell from the Indicator. Measure between +Vexc and –Vexc, the value should be about 420 Ohm (for the actual value check the manufacturer spec sheet under input impedance) . Measure between +Sense and –Sense, the value should be about 420 Ohm as well (for the actual value check the manufacturer spec sheet under input impedance). Now measure between +In and –In, the value should be about 355 Ohm (for the actual value check the manufacturer spec sheet under input impedance). If one of these values are not correct or you measure infinite Ohm, replace the load cell. Sense is not connected. Some load cells (most of the load cells from Utilicel or Flintec) have only four wires instead of six. To fix this problem connect a wire from +Vexc to +Sense and another wire from –Vexc to –Sense.
- If you have a new weighing installation, it can be fixated with screws for shipping use. Remove these screws.
- The load cell had a large force in the direction it weighs and it's only showing OOOOOO. Make sure that there is nothing on the load cell, but the load cell needs to be connected to the Indicator. Use a Multimeter and set it to mV DC. Place the +pin of the Multimeter on the +In of the indicator and the –pin of the Multimeter on the –In of the Indicator. A correct working load cell should give a reading between -0.01mV and 0.01mV. If it's well above this value your load cell is permanently damaged and needs to be replaced.
- If there is a junction box in-between the load cell and the Indicator. And the junction box is located in a moist area, it is possible there is water in it and it short-circuited the load cell.



About PENKO

Our design expertise include systems for manufacturing plants, bulk weighing, check weighing, force measuring and process control. For over 35 years, PENKO Engineering B.V. has been at the forefront of development and production of high-accuracy, high-speed weighing systems and our solutions continue to help cut costs, increase ROI and drive profits for some of the largest global brands, such as Cargill, Sara Lee, Heinz, Kraft Foods and Unilever to name but a few.

Whether you are looking for a simple stand-alone weighing system or a high-speed weighing and dosing controller for a complex automated production line, PENKO has a comprehensive range of standard solutions you can rely on.

Certifications

PENKO sets high standards for its products and product performance which are tested, certified and approved by independent expert and government organizations to ensure they meet – and even – exceed metrology industry guidelines. A library of testing certificates is available for reference on:

http://penko.com/nl/publications_certificates.html



PENKO Professional Services

PENKO is committed to ensuring every system is installed, tested, programmed, commissioned and operational to client specifications. Our engineers, at our weighing center in Ede, Netherlands, as well as our distributors around the world, strive to solve most weighing-system issues within the same day. On a monthly basis PENKO offers free training classes to anyone interested in exploring modern, high-speed weighing instruments and solutions. A schedule of training sessions is found on: www.penko.com/training

PENKO Alliances

PENKO's worldwide network: Australia, Belgium, Brazil, China, Denmark, Germany, Egypt, Finland, France, India, Italy, Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Syria, Turkey, United Kingdom, South Africa, Slovakia Sweden, Switzerland and Singapore. A complete overview you will find on: www.penko.com/dealers

