# CALIBRATION INSTRUCTIONS 1100, 2100, BASIC AND B VERSION INDICATORS

## **DETERMINE THE SOFTWARE VERSION**

- Switch the system on.
  - ☐ The indicator shows the following sequence:
    - 8888.8 (testing LCD segments)
    - 7.x (software version)
    - 13425 (the calibration number)
    - (current weight, standard weigh mode).

If the software version is 7.3 or 7.4 follow the instructions on page 1.

If the software version is 7.5 follow the instructions on page 3.

## **INSTRUCTIONS FOR SOFTWARE VERSION 7.3 AND 7.4**

## **DEFINING ZERO**

- Unload the system.
- > Switch the system on.
- ➤ Push the  $\rightarrow 0/T \leftarrow$  key for about 8 seconds.
  - ☐ The display counts down from AF 08 to AF 00.
  - ☐ The indicator shows which percentage of the total capacity has been zeroed, e.g. AP 6.4. This percentage should not be higher than 20.
  - ☐ The zero point has now been defined, the system automatically returns to standard weighing mode.

#### CALIBRATION

The indicator offers the possibility to enter a maximum of three calibration points (multiple point calibration). The advantage is that even weighing systems with bad hysteresis can be calibrated within specifications.

Since these instructions are often used in the field, where it is difficult to calibrate various points, we will start with the explanation of single point calibration.

## SINGLE POINT CALIBRATION

## Deletion (resetting to zero) of earlier calibrated points

- Push the ⇔PT key for about 18 seconds (this may be 8 seconds on older versions)
  - ☐ The display will go blank until calibration mode has been reached.
  - ☐ The indicator shows the value of the *first* calibration point, the *lowest* indication bar (on the left of the display) is flashing.
- Use the ▼ and ▲ keys to see the three earlier programmed values on the screen by moving the indication bar up and down.
  - ☐ When the lowest indication bar is lit, the first (lowest) value is shown, above that is the second and the highest bar shows the highest value.
- ☐ When calibrating only one point the second and highest values should be returned to zero.
- Press the ▼ or ▲ key until the middle calibration value is in the screen.
  - ☐ The middle indication bar is flashing.
- Press the →0/T← key.
  - ☐ The first segment is flashing.
- Use the ▼ and ▲ keys to set the flashing segment to zero.
- ➤ Change to the next segment by pressing the  $\rightarrow 0/T \leftarrow$  key.
- Set all the segments to zero until the indication bar is flashing.
- Press the ▼ or ▲ key until the highest calibration value is in the screen.
  - ☐ The highest indication bar is flashing.
- Repeat the process until all the segments are set to zero.

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## Single point calibration

- Return to the lowest value.
  - The indicator shows the value of the *first* calibration point, the lowest indication bar is flashing.
- Load the weighing system with a known weight and enter this weight on the indicator by pushing the →0/T← key shortly.
  - ☐ The first segment starts flashing.
- Use the ▼ en ▲ keys to change all segments, confirming the value per segment by pressing the →0/T ← key, until the proper weight has been entered.
  - When each segment has been corrected, the lower indication bar will flash again.
- ➤ Confirm the entered weight by pressing the  $\rightarrow 0/T \leftarrow$  key for 3 seconds.
  - The display counts down from AF 08 to AF 00, the first calibration point has been set.
- Leave calibration mode by pressing the ▼ or ▲ key until AP XX appears.
  - ☐ This number indicates the calibration sensitivity percentage, e.g. AP 07.
- Press the →0/T← key until the display goes blank.

## **MULTI-POINT CALIBRATION**

- Push the ↔PT kev for about 18 seconds (this may be 8 seconds on older versions).
  - ☐ The display will go blank until calibration mode has been reached.
  - The indicator shows the value of the *first* calibration point, the *lowest* indication bar is flashing.
- Load the weighing system with a known weight and enter this weight on the indicator by pressing the  $\rightarrow 0/T \leftarrow$  key shortly.
  - ☐ The first segment will start flashing.
- Use the ▼ en ▲ keys to change all segments, confirming the value per segment by pressing the →0/T ← key, until the proper weight has been entered.
  - ☐ When each segment has been corrected, the lower indication bar will flash again.
- ➤ Confirm the entered weight by pressing the  $\rightarrow$ 0/T  $\leftarrow$  key for 3 seconds.
  - The display counts down from AF 08 to AF 00, the first calibration point has now been set.
- ➤ Press the ▲ key.
  - ☐ The *middle* indication bar will start flashing and the indicator shows the value of the *second* calibration point.
- Load the weighing system with a higher known weight and enter this weight on the indicator, in the same way as described above.
  - ☐ Upon confirmation the second calibration point will be set.
- > Repeat the procedure for the *third* calibration point.
- Leave calibration mode by pressing the ▼ or ▲ key until AP XX appears.
  - ☐ This number indicates the calibration sensitivity percentage, e.g. AP 07.
- $\triangleright$  Press the  $\rightarrow$ 0/T ← key until the display goes blank.

After calibration, the indicator automatically switches to a small graduation. Only after switching the indicator off and turning it on again, will the indicator activate the chosen graduation.

**Attention:** in order to be able to practically start using the new parameter and calibration settings, these new data first need to be saved into the memory of the indicator. How to do this:

- after the desired parameter and/or calibration changes have been made, use the OFF key to switch off the indicator
- during the switching off procedure all new changes will be stored in the memory of the indicator and will become active when the indicator is re-started afterwards.

**Attention**: during the start-up sequence of the indicator a calibration number is briefly shown in the display. This number is changed automatically after each calibration. In case of legal for trade systems, this number is recorded by the approving official, so that one can always verify whether a later calibration has been done by non-authorised persons.

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## To view the calibration number:

- Switch the system off and then on again.
  - ☐ The indicator shows the following sequence:
    - 8888.8 (testing LCD segments)
    - 7.x (software version)
    - 13425 (the calibration number)
    - (current weight, standard weigh mode).

## **INSTRUCTIONS FOR SOFTWARE VERSION 7.5**

## **DEFINING ZERO**

- Unload the system.
- Switch the system on.
- Push the →0/T← key for about 8 seconds.
  - ☐ The display counts down from AF 08 to AF 00.
  - ☐ The indicator shows which percentage of the total capacity has been zeroed, e.g. AP 6.4. This percentage should not be higher than 20.
  - ☐ The zero point has now been defined, the system automatically returns to standard weighing mode.

#### **CALIBRATION**

The indicator offers the possibility to enter a maximum of three calibration points (multiple point calibration). The advantage is that even weighing systems with bad hysteresis can be calibrated within specifications.

Since these instructions are often used in the field, where it is difficult to calibrate various points, we will start with the explanation of single point calibration.

## SINGLE POINT CALIBRATION

## Deletion (resetting to zero) of earlier calibrated points

- Push the ⇔PT key for about 18 seconds (this may be 8 seconds on older versions)
  - ☐ The display will go blank until calibration mode has been reached.
  - ☐ The indicator shows the value of the *first* calibration point, the *lowest* indication bar (on the left of the display) is flashing.
- Use the ▼ and ▲ keys to see the three earlier programmed values on the screen by moving the indication bar up and down.
  - ☐ When the lower indication bar is lit, the first (lowest) value is shown
  - ☐ When the higher indication bar is lit, the second (middle) value is shown.
  - ☐ When both indication bars are lit, the third (highest) value is shown.
  - ☐ When calibrating only one point the second and highest values should be returned to zero.
- Press the ▼ or ▲ key until the middle calibration value is in the screen.
  - ☐ The higher indication bar is flashing.
- $\triangleright$  Press the →0/T ← key.
  - ☐ The first segment is flashing.
- Use the ▼ and ▲ keys to set the flashing segment to zero.
- ➤ Change to the next segment by pressing the  $\rightarrow$ 0/T  $\leftarrow$  key.
- Set all the segments to zero until the indication bar is flashing.
- Press the ▼ or ▲ key until the highest calibration value is in the screen.
  - Both indication bars are flashing.
- Repeat the process until all the segments are set to zero.

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## Single point calibration

- > Return to the lowest value.
  - The indicator shows the value of the *first* calibration point, the lowest indication bar is flashing.
- Load the weighing system with a known weight and enter this weight on the indicator by pushing the →0/T ← key shortly.
  - ☐ The first segment starts flashing.
- Use the ▼ en ▲ keys to change all segments, confirming the value per segment by pressing the →0/T ← key, until the proper weight has been entered.
  - ☐ When each segment has been corrected, the lower indication bar will flash again.
- ➤ Confirm the entered weight by pressing the  $\rightarrow 0/T \leftarrow$  key for 3 seconds.
  - ☐ The display counts down from AF 08 to AF 00, the first calibration point has been set.
- Leave calibration mode by pressing the ▼ or ▲ key until AP XX appears.
  - ☐ This number indicates the calibration sensitivity percentage, e.g. AP 07.
- Press the →0/T ← key until the display goes blank.

## **MULTI-POINT CALIBRATION**

- Push the ⇔PT key for about 18 seconds (this may be 8 seconds on older versions).
  - ☐ The display will go blank until calibration mode has been reached.
  - The indicator shows the value of the *first* calibration point, the *lowest* indication bar is flashing.
- Load the weighing system with a known weight and enter this weight on the indicator by pressing the  $\rightarrow 0/T \leftarrow$  key shortly.
  - ☐ The first segment will start flashing.
- Use the ▼ en ▲ keys to change all segments, confirming the value per segment by pressing the →0/T ← key, until the proper weight has been entered.
  - ☐ When each segment has been corrected, the lower indication bar will flash again.
- ➤ Confirm the entered weight by pressing the  $\rightarrow 0/T \leftarrow$  key for 3 seconds.
  - ☐ The display counts down from AF 08 to AF 00, the first calibration point has now been set.
- ➤ Press the ▲ key.
  - ☐ The *higher* indication bar will start flashing and the indicator shows the value of the *second* calibration point.
- Load the weighing system with a higher known weight and enter this weight on the indicator, in the same way as described above.
  - ☐ Upon confirmation the second calibration point will be set.
- > Repeat the procedure for the *third* calibration point.
- Leave calibration mode by pressing the ▼ or ▲ key until AP XX appears.
  - ☐ This number indicates the calibration sensitivity percentage, e.g. AP 07.
- Press the →0/T ← key until the display goes blank.

After calibration, the indicator automatically switches to a small graduation. Only after switching the indicator off and turning it on again, will the indicator activate the chosen graduation.

**Attention:** in order to be able to practically start using the new parameter and calibration settings, these new data first need to be saved into the memory of the indicator. How to do this:

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## To view the calibration number:

- Switch the system off and then on again.

  The indicator shows the following sequence:

  8888.8 (testing LCD segments)

  7.x (software version)

  13425 (the calibration number)

  - (current weight, standard weigh mode).

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