



Manual Benchtop Scale PCE-PS 150 MXL



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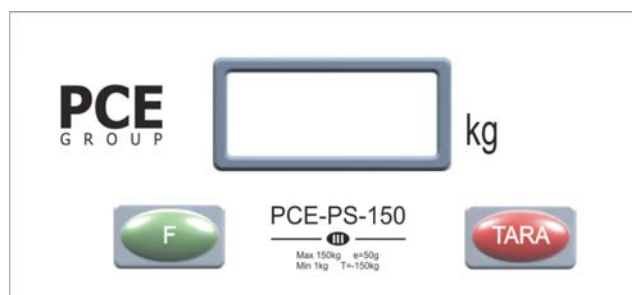


Fig. 1 The view of front panel (example of the scale WM 150)

All electronic scales WM and WE have the same electronic system and the buttons “TARA” and “F” function – Fig. 1 (some types have two buttons: “F1” and “F2”. Reading this manual it is necessary to use technical data of the scale.

1. Preparing the scale for work

- Put the scale on the level basis.
- Using spirit level and adjustable legs adjust horizontal level of the scale.
- Connect feeder 12V/100mA with the scale (using another kind of the feeder remember about right polarization of plug Fig.2).

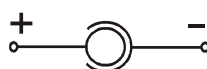


Fig. 2 Right polarization of plug of the feeder 12V/100mA

2. Weighing

- When there is a “small” zero on the right side of display, you should wait until the “big” zero (normal) is appeared or push the button “TARA”.
- Tara system works in the whole range of the scale and cause decrease of the range of weighing.
- Putting bigger mass on the pan than Max is signalized with displayed sign “----”.

3. Weighing with inside battery (optionally – when you buy battery)

- The period of working time of the scale with inside battery is about 80 hours: before the battery is discharged the words: “ low batt” are shown on display.
- When you want to charge the battery use the feeder (the feeder is connected with the scale and the scale is “off”).
- Minimal time for charge is about 10 hours.
- Maximum time - no limit.

4. Additional function: counting of elements .

- Counting elements with the same mass with the sample of elements: 1, 2, 5, 10, 20, 50, 100, 200 or 500 pieces. Electronic system of the scale has restrictions for counting using sample of elements with the mass < 1% Max . The errors of counting may be caused by: *choosing the wrong range of scale, accuracy of scale, wrong choose of sample of element (too small part of elements, difference of masses among counting of elements).*

5. Manual of counting

- Push few times the button “F” (F1) until you will see “Ctr” on display.
- Push the button “TARA” for approving the function. Appears “L10” on display. “L10” means sample of 10 elements; you can change it using the button “F”, (F1).
- When you choose the right number of elements in the sample wait about 3 seconds until turn signal “|_____|” appears on display (without this signal you have no stable measurement).
- Put on the pan sample of elements.
- Stable signal “|_____|” means that number of elements in the sample is right (for smaller number of elements in the sample counting is not possible).
- Push the button “TARA” to approve the sample.
- When number appears on display it is the end of calibration.
- In the counting mode tare function works normally.
- Next push (twice or three times) the button “F” turns off the function “counting”.

6. Function remember last measuring result

- Pressing a few times the button “F” you turn off the function of elements counting and turns on the function remembering last measuring result (this is indicated by changing sign “+” or “-“before value of mass).
- After loading the pan, unstable state is signaled by changing sign on display.
- When the scale achieved steady state, the last measuring result is on display.
- If you want to delete remembering result of measure, push the button “TARA”.
- Next push the button “F” which turns off the function of remembering last measuring result and opens the menu filtration.

7. Additional filtration

- Additional filtration permits to weight moving object, like animals, on the pan or with vibration of the ground.
- Using additional filtration you have lengthens the time of measure.
- When there is “F of” on the display - additional filtration is turn off.
- When there is “F on” on the display - additional filtration is turn on.
- You can change between two states : “F of” and “F on” using the button “TARA”;
- Next push the button “F” which changes the scale to normal weighing.

8. Turn off the scale

- Push the button “TARA” and hold it up for a few seconds.
- The scale has own control system for turning off but it works only with a battery supply.
- Using a supplier 12V/100mA, the scale can be still turn on.

9. Function remember the maximum value in the measuring cycle (optionally)

- The scale can be equipped with function remembering the maximum value similar to function described in 6.
- During measuring process display shows actual value of mass.
- You can read maximum value of mass by pushing the button of “TARA”, for a short time.
- If you want to delete the last remembering maximum value push the button “TARA” for long a time.

10. Protocol transmission RS 232c the scales WM

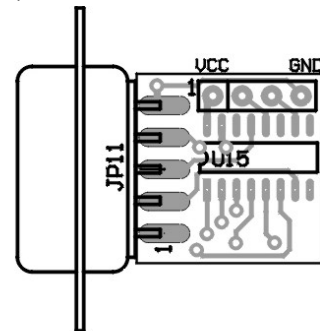
- Technical data of transmission
Speed: 9600 b/s
8 bits in sign
No even control
1 bit stop
- Telegram format

Telegrams are sent on request of outside device (sending sign A or Z)

The scale sends the following telegrams:

- After receiving the sign "A":
sign "-" or space
sign "1" or space
string 7 signs, consisting of digits and decimal dot
sign "0x0D" is finishing sequence
- After receiving the sign "Z":
String 3 sign ASCII, which described the unit measuring of mass for example "kg" in the weighing mode, or "pcs" (number of pieces) in mode of counting.
Sign "0x0D" finishing sequence.

The scale type WM can be connected with computer or similar devices, through serial port RS232 only with special cable produce by MENSOR Company. In the coupling of cable there is the driver system of RS232. On Fig. 3 there is the view of electronic plate which is in the coupling of the cable.



Plytka DRIV_232 podz. 2:1
Fig. 3

In this direction will find a vision of the measurement technique:
<http://www.industrial-needs.com/measuring-instruments.htm>

NOTE: "This instrument doesn't have ATEX protection, so it should not be used in potentially explosive atmospheres (powder, flammable gases)."