

OP-W Series

User Manual

Warnings

- Avoid using the balance in any harsh environment.
- Only trained professionals are allowed to do repair work.
- Turn power off before connecting/disconnecting the power source.
- Avoid overloading or dropping material onto the platform as that could damage the balance.
- Material that has a static charge could influence the performance of the balance.
- Electromagnetic interference can affect the reading of the balance.
- Unplug the power before cleaning and use a piece of soft cloth (do not use any aggressive cleaning agent); Make sure no liquid enters the balance.

OP-W Series

User Manual / Table of Contents

Getting Started	4
Overview	4
Contents	5
Preparation	5
Scale Settings	6
Settings Menu	6
Units Menu	8
Si.CAL-01 Menu	11
CALIB Menu.....	15
FILTER Menu	17
OIML Menu	17
QUIT Menu	20
RESET Menu.....	20
CI/C2 Menu.....	21
ADC Menu	21
RST Menu	22
ZERO Menu	22
G1SET Menu	23
G2SET Menu	24
More Info	25
Troubleshooting.....	25
Technical Support.....	25

OP-W Series

User Manual / Getting Started

Overview

Thank you for using Optima scales for your important application. Here is the list of models this manual covers:

Model #	Max Weight (grams)	Accuracy (grams)
OPW-P3	3,000	0.2
OPW-P6	6,000	0.5
OPW-P15	15,000	1
OPW-P30	30,000	2

OP-W Series

User Manual / Getting Started

Contents

- Scale main unit
- Scale pan
- User Manual
- AC adapter : 12V

Preparation

1. Carefully remove contents from the package which may include fragile parts.
2. Carefully assemble the scale by placing the scale pan.
3. Place the scale in a firm and flat surface, and avoid location where the scale maybe subject to vibration, sunlight, airflow, contact with water, and strong electromagnetic wave.
4. Level the scale by using the bubble level indicator (if available) and adjusting the feet of the scale.
5. Locate scale in the following condition:
 1. Temperature : 0°C ~ 40°C
6. Plug in the scale to a surge protected power outlet if using the AC adapter. You may use the internal rechargeable batteries also once it has charged.
7. Press the ON/OFF key in the front panel to turn the scale on and wait for it to finish initialization (i.e. when the display shows a weight of 0).
8. Let the scale warm up for 1 minute before calibration and use.
9. Make sure any weight placed on the scale is not beyond the rated maximum.
10. If scale is not used for an extended period of time, turn off the scale and unplug the AC adapter (if it's connected).

OP-W Series

User Manual / Scale Settings

Settings Menu

After the scale has been turned on and in the normal weighing mode, to get to the settings menu, follow the procedures below:



- Press the "PLU" key, holding it for more than 2 seconds.



- Press "ENTER" key



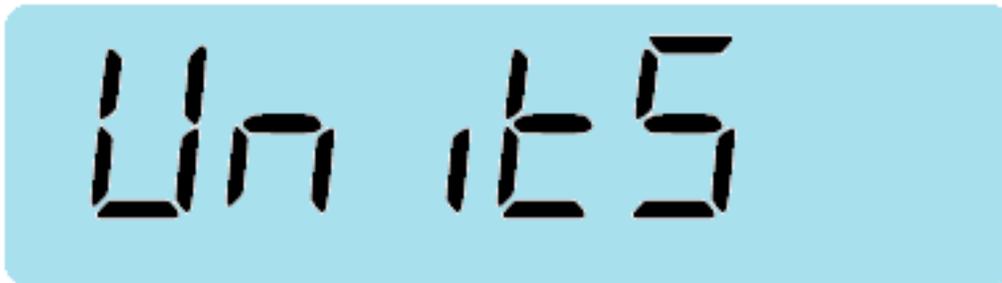
OP-W Series

User Manual / Scale Settings

- Enter the password “505388” by using the up/down arrow keys to increase/decrease the number, and the left/right keys to traverse to the digits of interest.



- Press “Enter” key, and now you are ready to change the settings of the scale. Units will be the first configuration the user can change.



- For each settings, press “Enter” key to change the value of that particular parameters by using the up/down keys to increase/decrease the parameters.
- Press “Enter” key to confirm.
- Use the left/right arrows to traverse among the menu settings.
- To exit without saving settings, press the “U” key (esc).
- To exit with saving settings, select “Quit” from the menu and press the “Enter” key as shown below:

OP-W Series

User Manual / Scale Settings



Quit

- Press “Enter” key after “Quit” (as shown above), and the indicator will go back to normal weighing mode.



0.0000 kg

Units Menu

Select the weighing unit, the place of the decimal, the maximum capacity, and the first range division and the second range division, if it exists.

Select the menu “Units”



Units

OP-W Series

User Manual / Scale Settings

Press "Enter" key



Change the parameter to 0 (kg) or 1 (g).
Press "Enter" key.



Select 0 to 5 to choose the number of decimals after the decimal point
Press "Enter" key

On the following screen, enter the maximum capacity of the scale. For the example below a 5kg max is set. Note the decimal places that was set in the previous step.



Press "Enter" key.

OP-W Series

User Manual / Scale Settings



Press "Enter" key.



The screen above lets user enter the division of the scale. The options are 01, 02, 05, 10, 20, 50. If we follow the previous example, if we choose 01 we will obtain the division/accuracy of 0.001 kg.

Press "Enter" key to configure the second rang or to exit from the "Units" menu. If the unit does not have the second rang option, the message will not show (the configuration of the second rang is the same as the configuration of the first rang).



To exit with saving, select the menu "Quit", and press the "Enter" key.

To continue the rest of the scale configurations, use the left/right arrow keys to select the setting of interest and press the "Enter" key.

OP-W Series

User Manual / Scale Settings

Si.CAL-01 Menu

This setting enables user to make a linear calibration.

Calibration can be done with 2 steps up to 10 steps maximum. Take the Earth Gravity into consideration. The gravity parameters can be programmed from the setting menu "G1set" and "G2set" (explained later in the document)



For example, we will calibrate the scale in 3 steps: 0kg, 0.5kg, and 1kg. When the pan is empty press "Enter" key.



The screen will be blinking while measuring zero. "Si-01" is shown to indicate that the measure of zero has been taken and that the unit is ready to take another measurement.

OP-W Series

User Manual / Scale Settings



Press the "Enter" key to program the calibration value.



In the example above, the value 0.5kg has been programmed by using the arrow keys.

Put the mass of 0.5kg on the pan, let it stabilize, and press "Enter" key. The screen will blink while taking the value of the weight.



When the measurement is done, "Si-02" will be shown to indicate that it's ready for a 3rd measurement.

OP-W Series

User Manual / Scale Settings



Press "Enter" key to program the 3rd calibration value.



The value of 1 kg has been programmed (using the arrow keys). Put the mass of 1 kg on the pan, let it stabilize, and press "Enter" key. The screen will blink while measuring the weight value.



When the measurement is done, "Si-03" will be shown to indicator that it's ready for a 4th measurement.

OP-W Series

User Manual / Scale Settings



Calibration can be done up to 10 values maximum.
To finish calibration and to go back to the main settings menu, press the left arrow key.



To exit with saving configuration, select the menu "Quit" and press "Enter" key.
To continue with more configurations, using the left and right arrows to traverse, and press "Enter" key to select the settings you want to change.

OP-W Series

User Manual / Scale Settings

CALIB Menu

This setting enables the normal calibration in 2 steps.



Press the "Enter" key and the internal counts is displayed (Note: may not be exactly the same as this number)



Press "Enter" key.



When the pan is empty, press the "Enter" key to calibration the zero value.

OP-W Series

User Manual / Scale Settings



The screen will blink while taking the zero value.

For example, if we want to program the value of 1kg, use the arrow keys to change to 1kg.



Put the calibration weight (in this case 1kg) on the pan and press "Enter" key.



The screen will blink while taking the value and the setting will exit automatically.

OP-W Series

User Manual / Scale Settings



To exit with saving the configuration, select the “Quit” menu, and press “Enter” key. To continue with other settings, use the left/right keys to traverse the menu, and press “Enter” key to enter the menu of interest.

FILTER Menu

The FILTER menu must NOT be modified.

OIML Menu

This setting has two values:

0: Scale does NOT follow OIML recommendations

1: Scale does follow OIML recommendations

There are 3 sub-parameters:

RS: Manual zero limit - Adjusts 0-99% from the bottom of the scale; It's the capacity for zero-ing when pressing the Zero key

OR: Initial auto zero limit - Adjusts 0-99% from the bottom of the scale; It's the capacity for zero-ing when turning on the scale

OT: Zero tracking limit - Adjust 0-99% of the division [e]; Adjusts automatically of zero drifting

Here is an example

OP-W Series

User Manual / Scale Settings



Press "Enter" key



The above mode indicates the scale does not follow the OIML recommendations and the sub-parameters RS, OR and/or OT can be programmed.

Press "Enter" key



With this configuration of the RS sub-parameter, the scale is capable of absorbing the zero deviation (2% from the bottom of the scale). For example, if the bottom of the scale is 5.000 kg, the scale will absorb up to 0.100 kg by pressing the "Zero" key.

Press "Enter" key.

OP-W Series

User Manual / Scale Settings



With this configuration of the OR sub-parameter, the scale is capable of starting with an initial deviation of the load cell by 16% from the bottom of the scale.

Press "Enter" key.



With this configuration of the OT sub-parameter, the scale can absorb the zero drifting which are inferior or equal to 40% of the division value.

For example, if the scale is configured for the division of 0.001 kg = 1 g, 0.4 g zero deviations will be absorbed.

Press "Enter" key.



To exit and save the configuration, select "Quit" menu and press "Enter" key.

OP-W Series

User Manual / Scale Settings

QUIT Menu

This menu allows quitting of the configuration menu while saving all the changes made. Simply press “Enter” key at the menu Quit as shown below:



To quit configuration menu without saving changes, press “U” (esc) key.

RESET Menu

The RESET menu resets all the configuration to the default settings. Note that this may leave the device unusable until the user re-calibrates the scale properly.



OP-W Series

User Manual / Scale Settings

CI/C2 Menu

This configures the scale as an individual or double platform.

0: one platform

1: two platforms but only one work at a time

2: two platforms working simultaneously



ADC Menu

This menu is composed of two sub-menus.

SR: speed of ADC (5, 10, 20): 20 is the highest speed

GN: Amplification of load cell (1, 2): 2 is when increase of amplification is needed



To quit with save, select "Quit" menu and press "Enter" key. To quit menu without changes, press "U" (esc) key.

OP-W Series

User Manual / Scale Settings

RST Menu

This menu allows resetting of the scale based on the offset value of the load cell. With value of 1, it resets the offset value by initializing it.



To quit with save, select “Quit” menu and press “Enter” key. To quit menu without changes, press “U” (esc) key.

ZERO Menu

This menu allows adjusting the number of divisions starting from which it will return to zero. There can be 6 values, with 0 meaning that the function is not acting. The values from 1 to 5 determines the number of divisions starting from which it will return to zero.



To quit with save, select “Quit” menu and press “Enter” key. To quit menu without changes, press “U” (esc) key.

OP-W Series

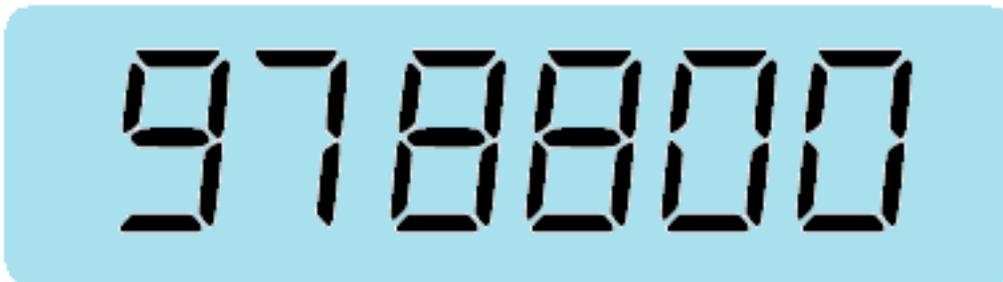
User Manual / Scale Settings

G ISET Menu

This menu allows scale calibration based on earth's gravity in different location.



Press "Enter" key.



Enter the gravity acceleration value without decimal point of the location you are interested in. If this value is modified, a linear calibration (Menu Si.CAL-01) needs to be performed.

Press "Enter" key.



To quit with save, select "Quit" menu and press "Enter" key. To quit menu without changes, press "U" (esc) key.

OP-W Series

User Manual / Scale Settings

G2SET Menu

This menu allows the scale to be used with a different earth's gravity from where the scale was initially calibrated without the need to re-calibrate.



025Et

Press "Enter" key.



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Enter the gravity acceleration value without the decimal point of the new location's earth gravity.

Press "Enter" key.



025Et

To quit with save, select "Quit" menu and press "Enter" key. To quit menu without changes, press "U" (esc) key.

Troubleshooting

Q: The scale is not showing an accurate reading.

A: Make sure the scale is placed on a firm and flat surface and that there are no external interference. Please revisit the “Preparation” section of this manual. Also, please make sure the calibration procedure has been performed correctly. It won't hurt to run through the calibration process again when in doubt!!!!

Technical Support

Please email support@optimascale.com if you have any further questions.