



## **PR Series Balances**

Instruction Manual

## **Balanças Série PR**

Manual de Instrucciones

## **Balance de Série PR**

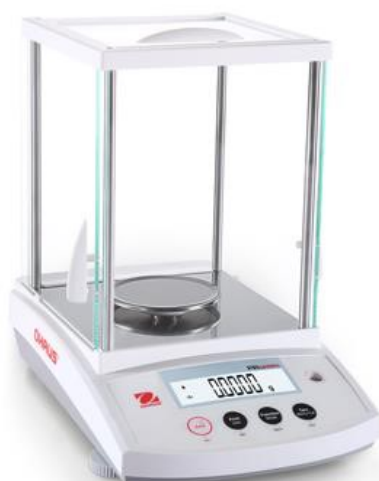
Manuel d'instruction

## **PR Serie Waagen**

Bedienungsanleitung

## **Bilance Série PR**

Manuale di Istruzioni





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# 1. INTRODUCTION

## 1.1 Description

The PR balance is a precision weighing instrument that will provide you with years of service if properly cared for. PR balances are available in capacities from 62 grams to 6200 grams.

## 1.2 Features

**Operation Controls:** backlit display, with 3 weighing applications and many features.



## 1.3 Definition of Signal Warnings and Symbols

Safety notes are marked with signal words and warning symbols. These show safety issues and warnings. Ignoring the safety notes may lead to personal injury, damage to the instrument, malfunctions and false results.

|                       |                                                                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>WARNING</b>        | For a hazardous situation with medium risk, possibly resulting in injuries or death if not avoided.                                        |
| <b>CAUTION</b>        | For a hazardous situation with low risk, resulting in damage to the device or the property or in loss of data, or injuries if not avoided. |
| <b>Attention Note</b> | For important information about the product<br>For useful information about the product                                                    |

### Warning Symbols



General Hazard



Electrical Shock Hazard



Direct current

Alternating current

## 1.4 Safety Precautions



**CAUTION:** Read all safety warnings before installing, making connections, or servicing this equipment. Failure to comply with these warnings could result in personal injury and/or property damage. Retain all instructions for future reference.

- Verify that the AC adapter's input voltage range and plug type are compatible with the local AC mains power supply.
- Make sure that the power cord does not pose a potential obstacle or tripping hazard.
- Do not position the balance such that it is difficult to reach the power connection.
- The balance is for indoor use only. Do not operate the equipment in hazardous or unstable environments.
- Operate the equipment only under ambient conditions specified in these instructions.
- Do not drop loads on the pan.
- Use the balance only in dry locations.
- Disconnect the equipment from the power supply when cleaning.
- Use only approved accessories and peripherals.
- Service should only be performed by authorized personnel.

## 2. INSTALLATION

### 2.1 Unpacking

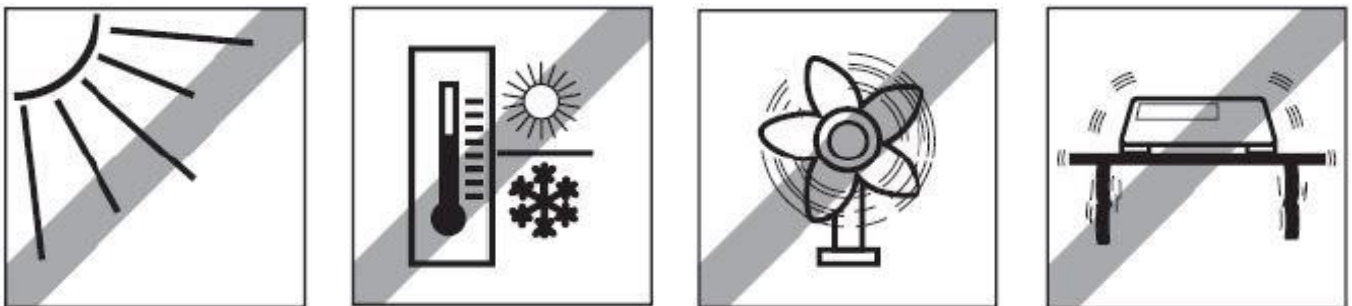
Carefully remove your PR balance and each of its components from the package. The included components vary depending on the balance model. Save the packaging to ensure safe storage and transport. Please read the manual completely before installing and using the PR balance to avoid incorrect operation.

Components included:

- Balance
- Power adapter + Attaching plug
- Stainless steel pan
- Pan support (for 0.1 g / 0.01 g model only)
- Warranty card

### 2.2 Select the Location

Avoid heat sources, rapid temperature changes, air current or excessive vibrations. Allow sufficient space.



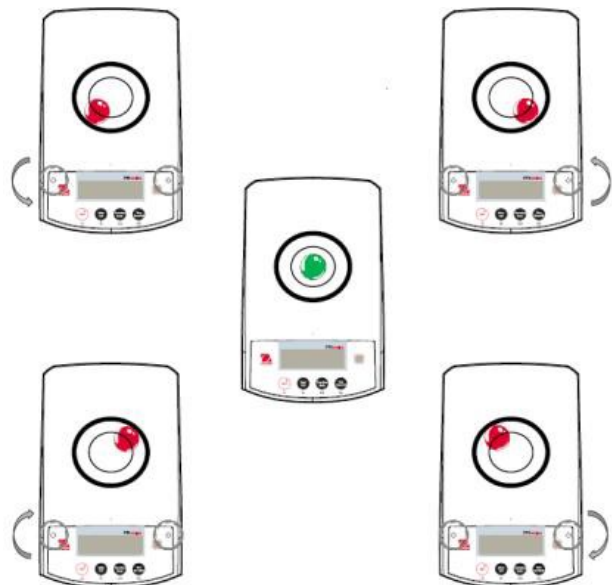
### 2.3 Leveling

Be sure the balance is level before it is used or after its location is changed.

The PR balance has a level bubble in a small round window beside the display.

To level the balance, adjust the 2 leveling feet until the bubble is centered in the circle.

Please refer to the right figure for leveling.



### 2.4 Connecting Power and Acclimatising the Balance

Connect the DC output connector to the power receptacle on the rear of the balance. Then connect the AC adapter plug to a suitable electrical outlet.

#### Acclimatising

It is suggested that the balance should not be used until it has been connected to power and acclimatised to the environment for a certain period of time. In the case of a balance with the precision above 0.1 mg, the acclimatisation time should be 1.5 hours; in the case of balance with the precision of 0.01 mg, the acclimatisation time should be more than 4 hours.

## 2.5 Connecting the Interface

The PR balance has a RS232 port.

Use the RS-232 port to connect either to a computer or a printer with a standard (straight-through) serial cable.

Interface connections on the rear of the balance



RS232

RS232: Used to connect to PC or Printer

**Note:** See the Printing section for Connecting, Configuring and Testing the Printer / Computer Interface.

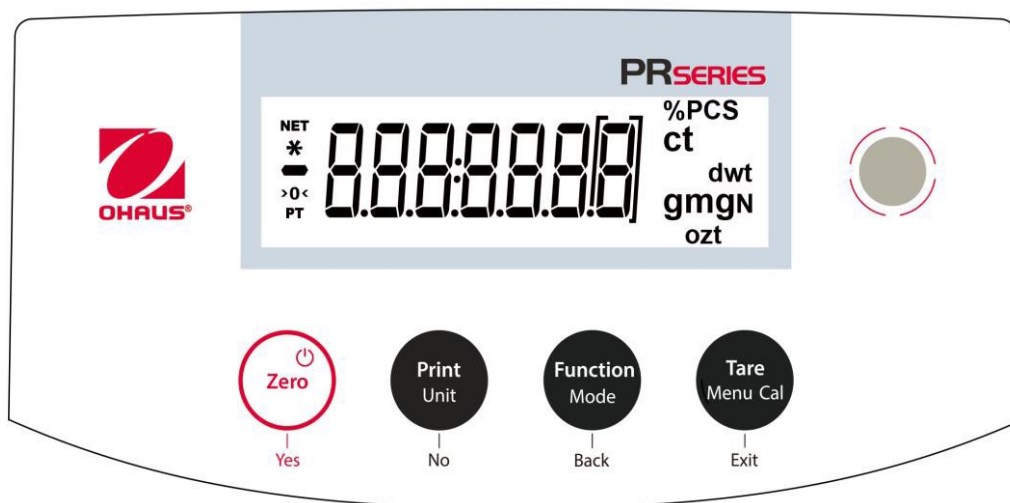
## 2.6 Initial Calibration

When the PR balance is first installed, or when it is moved to another location, it must be calibrated to ensure accurate weighing results. PR balances are classified into two categories, InCal models and ExCal models. InCal models have a built-in calibration mechanism which can calibrate the balance automatically and does not require the use of external calibration masses. If preferred, InCal models can also be manually calibrated with external masses. ExCal models are calibrated with external masses. Make sure to have the appropriate calibration masses available before beginning calibration.

### 3. OPERATION

#### 3.1 Overview of Controls and Display

##### CONTROLS



##### CONTROL FUNCTIONS

| Button                                                                                                                            | <br>Yes                                                             | <br>No                                                                      | <br>Back                                                 | <br>Exit                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Primary Function (Short Press)</b><br>      | <b>On / Zero</b> <ul style="list-style-type: none"> <li>If the balance is Off, turns on the balance.</li> <li>If balance is On, sets zero.</li> </ul> | <b>Print</b> <ul style="list-style-type: none"> <li>Sends the current displayed value to the serial interface.</li> </ul>                                     | <b>Function</b> <ul style="list-style-type: none"> <li>Operation is dependent on the application mode.</li> </ul>                            | <b>Tare</b> <ul style="list-style-type: none"> <li>Performs tare operation.</li> </ul>                                                                           |
| <b>Secondary Function (Press and Hold)</b><br> | <b>Off</b> <ul style="list-style-type: none"> <li>Zeroing current value.</li> </ul>                                                                   | <b>Unit</b> <ul style="list-style-type: none"> <li>Changes weighing units.</li> </ul>                                                                         | <b>Mode</b> <ul style="list-style-type: none"> <li>Changes application mode.</li> </ul>                                                      | <b>Menu-Cal</b> <ul style="list-style-type: none"> <li>Enters the main menu. Calibration is the first sub-menu.</li> <li>Views the preset Tare value.</li> </ul> |
| <b>Menu Function (Short Press)</b><br>         | <b>Yes</b> <ul style="list-style-type: none"> <li>Accepts the current (blinking) setting on the display.</li> </ul>                                   | <b>No</b> <ul style="list-style-type: none"> <li>Rejects the current (blinking) setting on the display.</li> <li>Increments a value being entered.</li> </ul> | <b>Back</b> <ul style="list-style-type: none"> <li>Reverts back to previous menu item.</li> <li>Decrements a value being entered.</li> </ul> | <b>Exit</b> <ul style="list-style-type: none"> <li>Immediately exits the sub-menu.</li> <li>Aborts a calibration in progress.</li> </ul>                         |

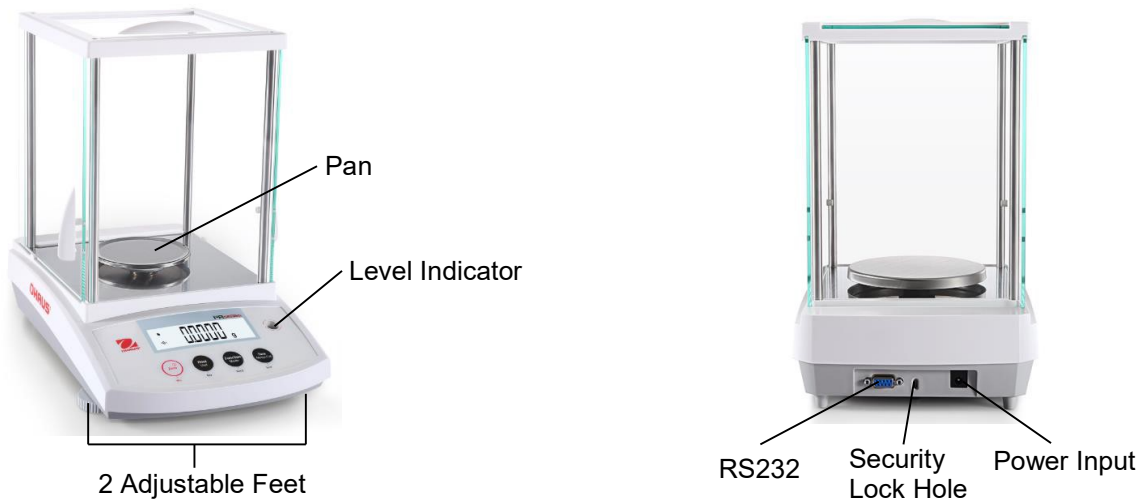
MAIN APPLICATION SCREEN



3.2 Principal Functions

- Weighing: First press **Zero** to set the display to zero. Place an object on the pan. The display indicates the gross weight.
- Taring: With no load on the pan, press **Zero** to set the display to zero. Place an empty container on the pan and press **Tare**. Add objects to the container and its net weight is displayed. After the container and the objects are removed, the load will be displayed as a negative number. Press **Tare** to clear.
- Zero: Press **Zero** to zero the balance.

3.3 Overview of Parts and Features – Draft Shield Models



3.4 Overview of Parts and Features – Non-Draft Shield Models

