



PR Series Balances User Guide



English

Español

Français

Deutsch

Italiano

Português

Svenska

Nederlands

Dansk

Polski

Čeština

Magyar

1. SAFETY INFORMATION

Description

This manual contains installation, operation and maintenance instructions for PR Series balance. Please read this manual completely before installation and operation.

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.

WARNING	For a hazardous situation with medium risk, possibly resulting in injuries or death if not avoided.
CAUTION	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.
Attention Note	For important information about the product For useful information about the product

Warning Symbols



General Hazard



Electrical Shock Hazard



Alternating current



Direct current

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.

Intended Use

Use the instrument exclusively for weighing as described in the operating instructions. Any other type of use and operation beyond the limits of technical specifications without written consent from OHAUS, is considered as not intended.

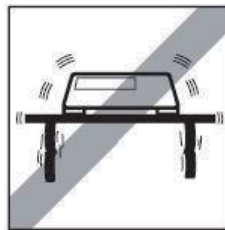
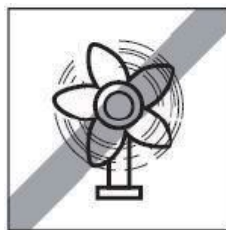
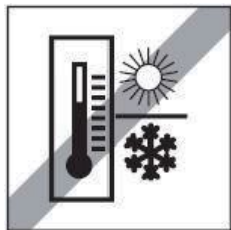
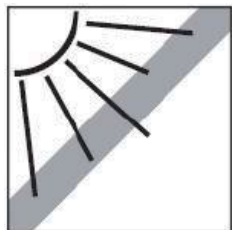
This instrument complies with current industry standards and the recognized safety regulations; however, it can constitute a hazard in use.

If the instrument is not used according to these operating instructions, the intended protection of the instrument may be compromised and OHAUS assumes no liability.

2. INSTALLATION

2.1 Select the Location

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



2.2 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.



2.3 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.

2.4 Connecting the Interface

The PR balance has an 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.

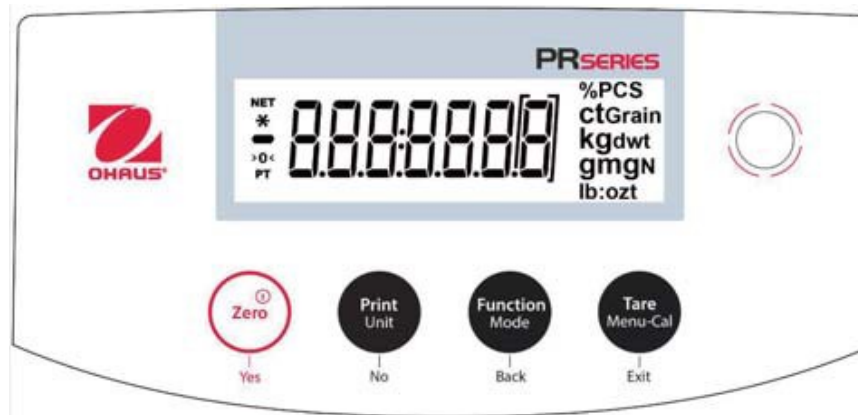
2.5 Initial Calibration

For best results, the instrument's calibration should be checked prior to first use. If adjustment is needed, refer to the Calibration section of the instruction manual.

3. OPERATION

3.1 Overview of Display, Home Screen

CONTROLS



CONTROL FUNCTIONS

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

DISPLAY

Net (NET)
Stability (*)
Negative (-)
Centre of zero (>0<)
Preset tare (PT)



Result Field: depending on application

Unit

3.2 Principal Functions

Zeroing: Press **Zero** to zero the balance.

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 tare value will be displayed as a negative number. Press **Tare** to clear.

weighing: First press **Zero** to set the display to zero. Place an object on the pan. The display indicates the gross weight.

4. MAINTENANCE

4.1 Cleaning



WARNING: Disconnect the balance from the power supply before cleaning. Make sure that no liquid enters the interior of the balance.



Clean the Balance at regular intervals.

Housing surfaces may be cleaned with a lint-free cloth slightly dampened with water or a mild cleaning agent.

Glass surfaces may be cleaned with a commercial glass cleaner.

Attention: Do not use solvents, harsh chemicals, ammonia or abrasive cleaning agents.

4.2 Troubleshooting

If the troubleshooting section does not resolve your problem, contact an Authorized Ohaus Service Agent. Please visit our website www.ohaus.com to locate the Ohaus office nearest you.

5. TECHNICAL DATA

The technical data is valid under the following conditions:

- Indoor use only
- Altitude: Up to 2000 m
- Specified Temperature range: 10°C to 30°C
- Humidity: maximum relative humidity 80% for temperatures up to 30°C, decreasing linearly to 50% relative humidity at 40°C
- Mains supply voltage fluctuations: up to $\pm 10\%$ of the nominal voltage
- Installation category II
- Pollution degree: 2

Model	PR124	PR124/E	PR224	PR224/E
Capacity (g)	120	120	220	220
Readability d (g)	0.0001	0.0001	0.0001	0.0001
Repeatability (sd.), ≤5% of Full Load (g)	0.00008	0.00008	0.00008	0.00008
Repeatability (sd.), 5% of Full Load to Full Range (g)	0.0001	0.0001	0.0001	0.0001
Linearity Deviation, Typical (g)	±0.00006	±0.00006	±0.00006	±0.00006
Linearity Deviation (g)	±0.0002	±0.0002	±0.0002	±0.0002
Power Supply	Power input: 100-240 V ~ 200 mA 50-60Hz 12-18VA Power output: 12 VDC 0.5A			

InCal Model	PR223	PR423	PR523	PR1602
ExCal Model	PR223/E	PR423/E	PR523/E	PR1602/E
Capacity (g)	220	420	520	1600
Readability d (g)	0.001	0.001	0.001	0.01
Repeatability (sd.), ≤5% of Full Load (g)	0.0008	0.0008	0.0008	0.008
Repeatability (sd.), 5% of Full Load to Full Range (g)	0.001	0.001	0.001	0.01
Linearity Deviation, Typical (g)	±0.0006	±0.0006	±0.0006	±0.006
Linearity Deviation (g)	±0.002	±0.002	±0.002	±0.02
Power Supply	Power input: 100-240 V ~ 200 mA 50-60Hz 12-18VA Power output: 12 VDC 0.5A			

InCal Model	PR2202	PR4202	PR4201	PR6201
ExCal Model	PR2202/E	PR4202/E	PR4201/E	PR6201/E
Capacity (g)	2200	4200	4200	6200
Readability d (g)	0.01	0.01	0.1	0.1
Repeatability (sd.), ≤5% of Full Load (g)	0.008	0.008	0.08	0.08
Repeatability (sd.), 5% of Full Load to Full Range (g)	0.01	0.01	0.1	0.1
Linearity Deviation, Typical (g)	±0.006	±0.006	±0.06	±0.06
Linearity Deviation (g)	±0.02	±0.02	±0.2	±0.2
Power Supply	Power input: 100-240V ~ 200mA 50-60Hz 12-18VA Power output: 12 VDC 0.5A			

Model	PR124M	PR224M	PR223M	PR323M	PR423M	PR523M
Capacity (g)	120	220	220	320	420	520
Readability d (g)	0.0001	0.0001	0.001	0.001	0.001	0.001
Verification Interval e (g)	0.001	0.001	0.01	0.01	0.01	0.01
Class	I	I	II	II	II	II
Repeatability (sd.), ≤5% of Full Load (g)	0.00008	0.00008	0.0008	0.0008	0.0008	0.0008
Repeatability (sd.), 5% of Full Load to Full Range (g)	0.0001	0.0001	0.001	0.001	0.001	0.001
Linearity Deviation, Typical (g)	±0.00006	±0.00006	±0.0006	±0.0006	±0.0006	±0.0006
Linearity Deviation (g)	±0.0002	±0.0002	±0.002	±0.002	±0.002	±0.002
Power Supply	Power input: 100-240V ~ 200mA 50-60Hz 12-18VA Power output: 12 VDC 0.5A					

Model	PR1602M	PR2202M	PR4202M	PR5202M	PR4201M	PR6201M
Capacity (g)	1600	2200	4200	5200	4200	6200
Readability d (g)	0.01	0.01	0.01	0.01	0.1	0.1
Verification Interval e (g)	0.1	0.1	0.1	0.1	0.1	1
Class	II	II	II	II	II	II
Repeatability (sd.), ≤5% of Full Load (g)	0.008	0.008	0.008	0.008	0.08	0.08
Repeatability (sd.), 5% of Full Load to Full Range (g)	0.01	0.01	0.01	0.01	0.1	0.1
Linearity Deviation, Typical (g)	±0.006	±0.006	±0.006	±0.006	±0.06	±0.06
Linearity Deviation (g)	±0.02	±0.02	±0.02	±0.02	±0.2	±0.2
Power Supply	Power input: 100-240V ~ 200mA 50-60Hz 12-18VA Power output: 12 VDC 0.5A					

6. COMPLIANCE

Compliance to the following standards is indicated by the corresponding mark on the product.

Mark	Standard
	This product complies with the EU Directives 2014/30/EU (EMC), 2014/35/EU (LVD) and 2014/31/EU (NAWI). The EU Declaration of Conformity is available online at www.ohaus.com/ce .
	This product complies with the applicable statutory standards of the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012, UK Electromagnetic Compatibility Regulations 2016, Electrical Equipment (Safety) Regulations 2016 and Non-Automatic Weighing Instruments Regulations 2016. The UK Declaration of Conformity is available online at www.ohaus.com/uk-declarations .
	EN 61326-1, AS/NZS 61010-1
	CAN/CSA-C22.2 No. 61010-1 UL Std. No. 61010-1

Important notice for PX/PXP/PJX/PR...M verified weighing instruments in the EU and UK

When the instrument is used in trade or a legally controlled application it must be set up, verified and sealed in accordance with local weights and measures regulations. It is the responsibility of the purchaser to ensure that all pertinent legal requirements are met.

Weighing Instruments verified at the place of manufacture bear the following supplementary metrology marking on the descriptive plate.

  1259

  0126

Weighing Instruments to be verified in two stages have no supplementary metrology marking on the descriptive plate. The second stage of conformity assessment must be carried out by the applicable weights and measures authorities.

If national regulations limit the validity period of the verification, the user of the weighing instrument must strictly observe the re-verification period and inform the weights and measures authorities.

As verification requirements vary by jurisdiction, the purchaser should contact their local weights and measures office if they are not familiar with the requirements.

	This product complies with the EU Directive 2012/19/EU (WEEE). Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment.
	For disposal instructions in Europe, refer to www.ohaus.com/weee

1. INFORMACIÓN SOBRE SEGURIDAD

Descripción

Este manual contiene instrucciones relativas a la instalación, operación y mantenimiento de la balanza PR. Por favor, lea el manual entero antes de proceder a la instalación y operación del equipo.

Definición de las señales y símbolos de advertencia

Los consejos de seguridad están marcados con palabras y símbolos de advertencia. Estos muestran advertencias y problemas de seguridad. Hacer caso omiso de las indicaciones de seguridad puede llevar a lesiones personales, daños al dispositivo, fallos de funcionamiento y resultados falsos.

ADVERTENCIA	Situaciones peligrosas con riesgo medio, que pueden provocar la muerte o lesiones graves si no se evitan.
PRECAUCIÓN	Situaciones peligrosas con riesgo bajo, que pueden provocar daños en el dispositivo o a la propiedad, pérdida de datos, o lesiones graves si no se evitan.
Atención	Información importante sobre el producto.
Nota	Información útil sobre el producto.

Símbolos de advertencia



Peligro general



Peligro descarga eléctrica



Corriente alterna



Corriente continua

Precauciones de seguridad



PRECAUCIÓN: lea todas las advertencias de seguridad antes de instalar, hacer conexiones o realizar el mantenimiento de este equipo. El incumplimiento de las instrucciones podría resultar en lesiones personales y/o daños materiales. Conserve todas las instrucciones para futura referencia.

- Compruebe que el rango de voltaje de entrada del adaptador de CA y el tipo de enchufe son compatibles con la red eléctrica de corriente alterna local.
- Asegúrese de que el cable de alimentación no represente un posible obstáculo o riesgo de tropezarse.
- No coloque la báscula de tal manera que sea difícil llegar a la conexión eléctrica.
- Utilice la báscula solo en interiores. No utilice la unidad en entornos peligrosos o en lugares inestables.
- Opere la unidad solamente bajo las condiciones ambientales especificadas en estas instrucciones.
- No deje caer cargas sobre el plato.
- Utilice la báscula solo en lugares secos.
- Desconecte el equipo de la fuente de alimentación durante su limpieza.
- Utilice accesorios y periféricos aprobados.
- Cualquier reparación y servicio debe ser realizado solo por personal autorizado.

Uso Apropriado

Utilice el equipo exclusivamente para los fines de pesaje descritos en el manual. Cualquier otro tipo de uso y/o funcionamiento, que exceda los límites de las especificaciones técnicas sin el consentimiento por escrito de OHAUS, se considera como Uso Inapropiado.

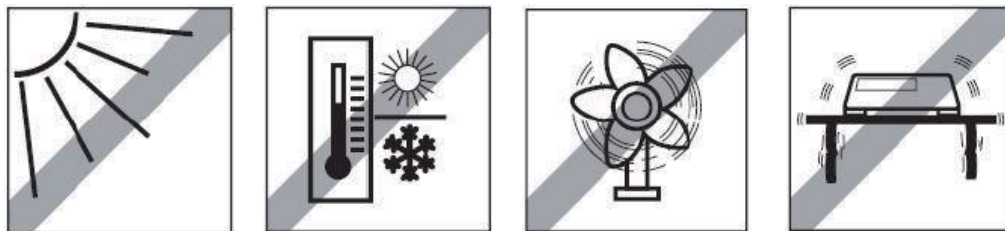
Este equipo cumple con los estándares de la industria y las normas actuales de seguridad reconocidas; sin embargo, puede constituir un peligro en su uso.

Si el equipo no se utiliza de acuerdo al manual de instrucciones, su seguridad puede verse afectada, por lo que OHAUS no asume ninguna responsabilidad.

2. INSTALACIÓN

2.1 Seleccionar la ubicación

Evite fuentes de calor, cambios rápidos de temperatura, corrientes de aire o vibraciones excesivas. Deje espacio suficiente.



2.2 Nivelación

Asegúrese de que la báscula está nivelada antes de su uso o después de cambiar su ubicación.

La báscula PR tiene un nivel de burbuja en una pequeña ventana redonda junto a la pantalla.

Para nivelar la báscula, ajuste los 2 pies de nivelación hasta que la burbuja esté centrada en el círculo.

Consulte el dibujo de la derecha para ajustar la nivelación.



2.3 Conexión de la alimentación y aclimatación de la báscula

Conecte el conector de salida de CC a la toma de corriente en la parte posterior de la báscula. A continuación, conecte el enchufe del adaptador de CA a una toma de corriente adecuada.

Aclimatación

Se recomienda no utilizar la báscula hasta que la unidad se haya aclimatado al entorno durante un determinado período de tiempo. En el caso de básculas con precisión por encima de 0,1 mg, el tiempo de pre-aclimatación debe ser de 1,5 horas; en el caso de básculas con una precisión de 1 mg, el tiempo de aclimatación debe ser de un mínimo de 0,5 horas.

2.4 Conexión de la interfaz

La báscula PR balance tiene un puerto RS232.

Utilice el puerto RS-232 para conectar con un ordenador o una impresora mediante un cable serie estándar (directo).

Conexiones de interfaz en la parte posterior de la báscula



RS232

RS232: utilizado para conectar a ordenador o impresora

Nota: consulte la sección «Impresión» para la Conexión, Configuración y Prueba de la impresora / interfaz del ordenador.