



# Valor 1000 User Guide



# 1. INTRODUCTION

This manual contains installation, operation and maintenance instructions for the Ohaus Valor™ 1000 Series Scales. Please read the manual completely before using the scale.

## 1.1 Safety Precautions

Please follow these safety precautions:

- Verify AC Adapter input voltage matches the local AC power supply.
- Do not immerse the scale in water or other liquids.
- Do not operate the scale in hostile environments.
- Do not drop loads on the platform.
- Do not place the scale upside down on the pan.
- Service should only be performed by authorized personnel
- Disconnect the scale from the power supply when cleaning

## 1.2. Controls

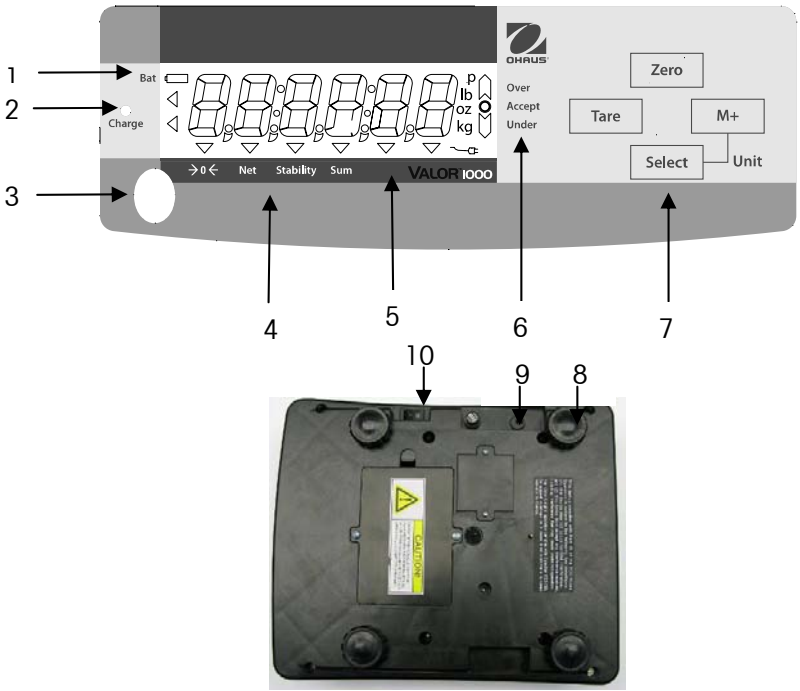


Figure 1-1. Controls.

TABLE 1-1. CONTROLS

Item	Description
1	Low battery indicator
2	Battery charge indicator
3	Level Bubble
4	Center of Zero, NET, Stability Sum icons
5	7-segment, 6 digit backlit LCD w/ units of measure enunciators
6	Over, Under , Accept Check weigh indicators
7	Control Buttons
8	Adjustable feet
9	Power input jack
10	On/Off Power Switch

TABLE 1-2. CONTROL FUNCTIONS.

Button	Action	Function
ZERO <i>Enter</i>	Short Press	Sets display to zero
	Menu Press	Confirms settings
TARE	Short Press	Tares weight of item on pan
	Menu Press	Decrement over and under settings
M+ <i>Units</i>	Short press	Stores displayed weight in accumulation memory Display accumulation data when display is at zero
	Menu Press	Increment over and under settings
	Long Press	Change unit of measure while already pressing SELECT button
SELECT <i>Units</i>	Short press	Shift to next digit when setting over and under values
	Long Press	Change unit of measure together with short press of M+ button

## 2. INSTALLATION

### 2.1 Package Contents

- Valor 1000 Scale
- Stainless steel Pan
- AC Power Adapter
- Instruction Manual
- Warranty Card

### 2.2 Location

Use the scale on a firm, steady surface. Avoid locations with excessive air current, vibrations, heat sources, or rapid temperature changes. Adjust the leveling feet so the bubble is centered in the circle.

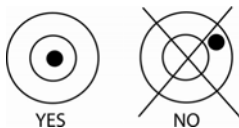


Figure 2-1. Leveling the Scale.

### 2.3 Power

Connect the AC Adaptor to the AC mains supply. Connect the plug to the DC jack on the bottom of the scale. The scale may be operated on the AC mains supply or the built in rechargeable battery. The scale must be turned on to charge the battery.



DC jack



Figure 2-2. Power Connection

#### 2.3.1 Battery Power

The scale can be operated on the internal rechargeable battery when AC power is not available. The scale will automatically switch to battery operation if there is a power failure or the power cord is removed.



Before using the scale for the first time, the battery should be fully charged for up to 12 hours. During charging, the battery Indicator displays the charge level (see table 1-1), and the scale can be operated during charging. The battery is protected against over charging and the scale can remain connected to the AC power line.

**NOTE:**

- Charging the scale must only be performed in a dry environment



**CAUTION:** Battery is to be replaced only by an authorized Ohaus service dealer

Risk of explosion can occur if replaced with the wrong type or connected improperly

Dispose of the lead acid battery according to local laws and regulations

## 2.4 Initial Calibration

When the scale is operated for the first time, a Span calibration is recommended to ensure accurate weighing results. Before performing the calibration, be sure to have the appropriate calibration weight.

Refer to section 4.3 for Span calibration procedures.

## 3. OPERATION

### 3.1 Turning Scale On/Off

To turn the scale on, flip the toggle switch below the right front keyboard. The scale performs a display test, momentarily displays software version, and then enters the active weighing mode. To turn the scale off, toggle same switch to off position.

### 3.2 Zero Operation

Zero is set under the following conditions:

- Automatically at Power On (initial zero).
- Manually by pressing the **ZERO** button.

Press the **ZERO** button to zero the weight display. The scale must be stable and weight +/- 2% of capacity to accept zero operation.

### 3.3 Manual Tare

Place a container on the weighing pan, then press **TARE**. The display will show a net value of "0". To clear the Tare value, press **TARE** with the pan empty.

### 3.4 Weighing Mode

Use this mode to measure the weight of a sample in the selected unit of measure. Press and hold **SELECT** and press M+ Unit until the desired unit icon is displayed. Press **ZERO** to set the display to zero. Put an empty container on the pan, and then press **TARE** to tare the container weight. Add material to the container. The display shows the weight of the material in selected unit of measure.

### 3.5 Accumulate Mode

Use this mode to store the weight and HI, LO, SUM statistics from a series of samples.

Press **ZERO** to set the display to zero.

Place the sample on the pan, wait for stabilization.

Press **M+** to store the weight of the sample. Storage is confirmed by the display [n---x], where x is the sample number. The enunciator above **SUM** text will illuminate to let user know there are readings in memory. Remove the sample, wait for stable zero reading, then place the next sample on the pan. Press **M+** to store the weight of the next sample. Repeat this process until all samples have been weighed.

Review the accumulation data by pressing **M+** when the display is at zero.

The display shows the number of samples [n---x]

Press **M+** to view the maximum sample weight [Hxxxxx].

Press **M+** to view the minimum sample weight [Lxxxxx].

Press **M+** to view the sum of weights [xxxxx].

Press **M+** to return to weighing.

Clear the accumulated data by pressing **ZERO** when the number of samples is displayed. Note – when stored values are in memory, unit of measure cannot be changed.

### 3.6 Check Weigh Mode

Use this mode to compare samples to a target weight range.

Press **ZERO** to set the display to zero. Place a sample on the pan and read the weight and under / accept / over status on display. (Refer to section 4.1 to set limits)

### 3.7 Changing Units of Measure

Press and hold the **SELECT** key, and while still holding the **SELECT** key, press **M+** button to display the next available measuring unit. Repeat process to scroll through all units.

## 4. SETTINGS

The scale allows the user to customize several settings including check weigh limits, backlight operation and calibration.

### 4.1 Over and Under Limits

Press and hold **SELECT**, and while still pressing **SELECT**, press **ZERO** until [SET--HL] is displayed.

Press **ZERO** to view the upper limit [000000].

Press **SELECT** (←), **TARE** (↑), **M+** (↓) to edit the digits of the upper limit.

Press **ENTER** (ZERO Key) to confirm the setting and display the lower limit [000000].

Press **SELECT** (←), **TARE** (↑), **M+** (↓) to edit the lower limit.

Press **ENTER** (ZERO Key) to confirm the lower setting and display will show Run---X where x is the alarm setting. In this case x=

0 = Turns off check weigh mode

1 = under / accept / over indicators are displayed, alarm beeps when weight is outside accept range.

2 = under / accept / over indicators are displayed, alarm beeps when weight is within accept range.

3 = under / accept / over indicators are displayed, alarm is off.

Press **TARE & M+** to change the alarm to desired setting.

Press **ENTER** (ZERO key) to confirm setting and display [EndSEt]

When [EndSEt] is displayed, Press and hold **SELECT**, and while still pressing **SELECT**, press **ZERO** key to return to weighing.

### 4.2 Backlight

Press and hold **ZERO** button until [bL---x] is displayed, where x=

0 = backlight is turned off

1 = backlight is on during weighing (15 seconds of no activity)

2 = backlight is always on

Press **TARE** to change the setting. Press **ZERO** to confirm the setting and return to weighing.



### 4.3 CALIBRATION

Span Calibration:

Turn on the scale. When the display flashes all of the segments ("1~9"), simultaneously press and hold the **ZERO** and **SELECT** key. When "999999" is displayed release both buttons. The display reads "CAL ---"

Press **ZERO** key to display "A\_\_\_\_x" (x=divisions in grams:1,2,5,10,20,50).

Press **ZERO** key to accept the default division setting which is shown on the display. Do not change default.

Display shows "b\_\_\_\_x" (x=decimal point:0,1,2,3,4). Press **ZERO** key to accept the default decimal point setting which is shown on the display. Do not change default.

Display shows "Cxxxxx" (xxxxx=Capacity of scale). Press **ZERO** key to accept the default Capacity setting which is shown on the display. Do not change default.

Display shows "d\_\_\_\_x" (x=Zero tracking setting:0-6 from 0d to 5d). Press **ZERO** key to accept the default setting which is shown on the display.

The display shows "E\_\_\_\_x" (x=0, Accumulation and Check Weighing available; x=1, Accumulation and Check Weighing are not available). Press the **ZERO** key to accept the default setting which is shown on the display.

Press **ZERO** and display will show "Load 0". Make sure pan is empty then press **ZERO** key to accept. Display will show "Load F".

Press **ZERO** to display "Fxxxxx" (xxxxx=Span weight ). To accept the default span weight, put displayed weight on the scale, and press **ZERO** to accept it.

*If span weight is not available, the user can select a lower span calibration point value. Use the **SELECT** (scroll to next digit), **TARE** (decrease blinking digit) and **M+** (increase blinking digit) keys to increment or decrement span calibration values. Once the desired span calibration weight is set, place displayed weight on the scale, and press **ZERO** to accept it. After completion, The display shows "EndCAL" and the scale will return to the weighing mode.*

To abort calibration at any point, turn the scale off. To restart calibration, follow the procedure from the beginning.

## 5. MAINTENANCE

**Caution:** before cleaning, turn off the scale, remove the AC adapter.

### 5.1 Cleaning

The housing may be cleaned with a cloth dampened with a mild detergent if necessary. Do not use solvents, chemicals, alcohol, ammonia or abrasives to clean the housing or control panels.

### 5.2 Troubleshooting

The following table lists common problems and possible causes and remedies. If the problem persists, contact Ohaus or your authorized dealer.

TABLE 5-1. TROUBLESHOOTING.

Symptom	Possible Cause(s)	Remedy
Scale will not turn on	No power to scale • Battery power used up	Verify connections and voltage • Connect power and charge the battery
Poor accuracy	Improper calibration • Unstable environment	Perform calibration • Move scale to suitable location
Unable to calibrate	Unstable environment • Incorrect calibration mass	Move the scale to suitable location • Use correct calibration mass
Scale flashes Bat	Battery discharged	Connect power and charge the battery
Battery fails to charge fully	Battery is defective	Have battery replaced by authorized service dealer
ZEro-E	Pan has load during power on	Remove weight from pan and re-zero
ZEro-E	Pan was removed	Install pan and re-zero.
-Over-	Weight on pan exceeds capacity	Remove weight from the pan
Err-01	Invalid under and over limit settings	Re-enter under and over limits
Ad-Lo	Incorrect Calibration Setting or incorrect Calibration weight	Correct the Calibration setting or Calibration weight

### 5.3 Service Information

If the troubleshooting section does not resolve or describe your problem, contact your authorized Ohaus service agent. For service assistance or technical support in the United States call toll-free 1-800-526-0659 between 8:00 AM and 5:00 PM EST. An Ohaus product service specialist will be available to provide assistance. Outside the USA, please visit our web site, [www.ohaus.com](http://www.ohaus.com) to locate the Ohaus office nearest you.

## 6. TECHNICAL DATA

The technical data is valid under the following ambient conditions:

Ambient temperature: 0°C to 40°C, Maximum Relative humidity: 80% for temperatures up to 31°C, decreasing linearity to 50% relative humidity at 40°C.

Height above sea level: Up to 2000m. Operability is assured at ambient

temperatures between 0°C and 40°C Power: AC adapter : 9 or 12 VDC, Protection:

Protected against dust and water, Pollution degree: 2 , Installation category: Class

III, EMC: See Declaration of Conformity

### 6.1 Specifications


TABLE 6-1. Specifications.

Single Display Models	V11P3	V11P6	V11P15	V11P30
Dual Display Models	V11P3T/ V11P3TG*	V11P6T/ V11P6TG*	V11P15T/ V11P15TG*	V11P30T/ V11P30TG*
Capacity (kg)	3	6	15	30
Readability (g)	0.5	1	2	5
Repeatability (g)	1	2	5	10
Linearity (g)	1	2	5	10
Weighing Units*	Kilograms, Pounds, Grams, Ounces			
App Modes	Weigh, Accumulate, Checkweigh			
Tare range	To capacity by subtraction			
Stabilization Time	≤3 seconds			
Power requirements	9 VDC 500 mA AC adapter (supplied) Internal rechargeable sealed lead acid battery			
Calibration	Digital with external weight			
Battery Life	80/100 hours (with/without backlight on)			
Display Type	6-digit 7-segment LCD with blue backlight			
Display Size	20 mm / 0.8 in digits			
Pan Size	250 x 180 mm. / 9.9 x 7.1 in.			
Dimensions	255w x 305d x 115h mm / 10w x 12d x 4.5h in			
Net Weight	3.2 kg / 7 lb			
Shipping Weight	4.0 kg / 8.8 lb			

\* V11PxTG models have only Kilogram and Gram units enabled

## 6.2 Compliance

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

	This product conforms to the EMC directive 2004/108/EC and the Low Voltage Directive 2006/95/EC. The complete declaration of Conformity is available online at <a href="http://www.ohaus.com">www.ohaus.com</a> .
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	<p><b>Disposal</b></p> <p>In conformance with the European Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) this device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements.</p> <p>The Batteries Directive 2006/66/EC introduces new requirements from September 2008 on removability of batteries from waste equipment in EU Member States. To comply with this Directive, this device has been designed for safe removal of the batteries at end-of-life by a waste treatment facility.</p> <p>Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment.</p> <p>If you have any questions, please contact the responsible authority or the distributor from which you purchased this device.</p> <p>Should this device be passed on to other parties (for private or professional use), the content of this regulation must also be related.</p> <p>For disposal instructions in Europe, refer to <a href="http://www.ohaus.com">www.ohaus.com</a>, choose your country then search for WEEE.</p> <p>Thank you for your contribution to environmental protection.</p>
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## FCC Note

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**Industry Canada Note**

This Class A digital apparatus complies with Canadian ICES-003.

**ISO 9001 Registration**

In 1994, Ohaus Corporation, USA, was awarded a certificate of registration to ISO 9001 by Bureau Veritas Quality International (BVQI), confirming that the Ohaus quality management system is compliant with the ISO 9001 standard's requirements. On May 21, 2009, Ohaus Corporation, USA, was re-registered to the ISO 9001:2008 standard.

**LIMITED WARRANTY**

Ohaus products are warranted against defects in materials and workmanship from the date of delivery through the duration of the warranty period. During the warranty period Ohaus will repair, or, at its option, replace any component(s) that proves to be defective at no charge, provided that the product is returned, freight prepaid, to Ohaus.

This warranty does not apply if the product has been damaged by accident or misuse, exposed to radioactive or corrosive materials, has foreign material penetrating to the inside of the product, or as a result of service or modification by other than Ohaus. In lieu of a properly returned warranty registration card, the warranty period shall begin on the date of shipment to the authorized dealer. No other express or implied warranty is given by Ohaus Corporation. Ohaus Corporation shall not be liable for any consequential damages.

As warranty legislation differs from state to state and country to country, please contact Ohaus or your local Ohaus dealer for further details.





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