



Catapult [™] 1000 Series Instruction Manual



1. INTRODUCTION

This manual contains installation, operation and maintenance instructions for the Catapult $^{\text{TM}}$ 1000 Series Scales. Please read the manual completely before using the scale.

1.1 Safety Precautions

Please follow these safety precautions:

- Verify that the 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.

Button	ON/ZERO Off	UNITS Cal
Primary Function (Short Press)	ON/ZERO Turns scale ON. If scale is On: Sets zero. Simulates a tare operation.	UNITS Changes the weighing unit. Enters Dynamic Weighing Mode. Initiates countdown in Dynamic Weighing mode.
Secondary Function (Long Press)	Off Turns scale off.	Cal Initiates calibration process.

TABLE 1-1. CONTROL FUNCTIONS.

1.2 Display Window

1.2.1 Large 7-Segment Numeric Characters:

Weight (mass) values are shown using 4 digits including negative sign and decimal places. Prompts for calibration and possible error conditions are also shown using these digits.

1.2.2 Stable Reading Indication:

A * will appear in the lower left corner of the display to indicate when the reading is stable.

1.2.3 Weighing Unit Indication:

The weighing unit selected appears on the right side of the display

1.2.3 Dynamic Weighing Mode Indication:

A • will flash next to the selected unit during this mode.

1.2.3 Low Battery Indication:

The battery symbol on the left side of the display indicates a low battery condition. When first displayed, approximately 12 hours of operation remain. When the battery is fully depleted, the scale will momentarily display "Lo bAt" and shut off.

2. INSTALLATION

2.1 Package Contents

- Scale
- 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.

2.3 Power

2.3.1 AC Power

The AC adapter (included) may be used to power the scale when battery power is not available. Connect the AC adapter plug to the input jack. Then plug the AC adapter into a properly grounded power outlet.

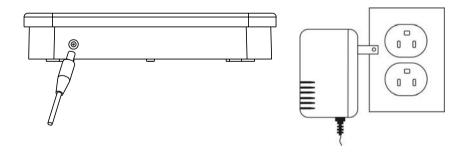


Figure 2-1. Power Connection.

2.3.2 Battery Installation (Optional)

Open the battery cover on the bottom of the scale and install three "C" size (LR14) alkaline or rechargeable batteries into the compartment. Orient the batteries as shown on the inside of the compartment. Close the battery cover.

NOTE: Batteries are not included.

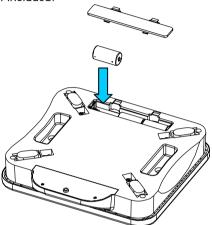


Figure 2-2. Battery Installation.



CAUTION: Do not dispose of used batteries in domestic waste. Follow the proper disposal or recycling requirements in accordance with local laws and regulations.

3. OPERATION

3.1 Turning Scale On/Off

To turn the scale on, press the **ON/ZERO** *Off* button. The scale performs a display test, momentarily displays the model/software version, and then enters the active weighing mode.

To turn the scale off, press and hold **ON/ZERO** Off button until OFF is displayed.

3.2 Zero Operation

By pressing the **ON/ZERO** *Off* button, the scale display returns to zero. When adding additional mass, the **ON/ZERO** *Off* Button may be used repeatedly until the full capacity of the scale is reached. When a container is used, the **ON/ZERO** *Off* button may be used to simulate a Tare function. Additional mass may then be added as a

NET weight. When removing both the sample and container from the scale, a negative value may be displayed. Zero the scale again before subsequent usage.

NOTE: The **ON/ZERO** *Off* button will perform a true zero setting function when displayed values are within $\pm 2\%$ of full capacity. Above 2%, the range is limited to full capacity by subtraction.

3.3 Changing Units of Measure

Press the **UNITS** *Cal* button to display the next available measuring unit.

3.4 Auto Shut-Off

To extend battery life, the scale will automatically turn off after approximately four minutes of inactivity. This feature is only active during battery operation.

3.5 Dynamic Weighing

With the platform empty, short press the **UNITS** *Cal* button to cycle through the units. Dynamic mode is active when the indicator • is flashing.

Place a mass on the platform. The scale will show "-A-". **NOTE:** If using a container, press **ON/ZERO** *Off* to tare the weight and return to zero.

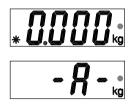
With a mass on the platform or container, a short press of **UNITS** *Cal* will start the averaging countdown from 5 seconds.

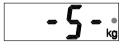
The averaged weight is then displayed. The indicator • stops flashing when the process is complete.

The display will hold until a button is pressed.

To repeat the process press **UNITS** *Cal* with a mass on the platform or container.

To Exit, remove the mass from the platform or container and press **UNITS** *Cal*.







4. CALIBRATION

For best results, calibrate the scale at regular intervals. (Calibration weights are not supplied with the scale.)

CAUTION



USE EXTREME CARE WHEN HANDLING CALIBRATION WEIGHTS AS THEY ARE VERY HEAVY. IMPROPER LIFTING METHODS OR MISUSE OF CALIBRATION WEIGHTS MAY RESULT IN PERSONAL INJURY. MULTIPLE WEIGHTS MAY BE USED TO EQUAL THE REQUIRED CALIBRATION WEIGHT

NOTE:

- Ensure the appropriate calibration masses are available before beginning calibration (see Table 4-1).
- Ensure that the scale is level and stable during the entire calibration process.
- Calibration is unavailable in Dynamic Weighing Mode.
- Allow the scale to warm up for at least 2 minutes after stabilizing to room temperature.
- To abort calibration, press **UNITS** *Cal*, or power off the scale.

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Model	Calibration weight (kg/lb)			
C11P9	9 / 20			
C11P20	20 / 40			
C11P75	50 / 100			

TABLE 4-1. CALIBRATION WEIGHTS.

4.1 Span Calibration

Span Calibration uses two points to adjust the scale. The first point is the zero value where there is no weight on the scale. The second point is the Span value where a calibration mass is placed on the scale.

To select the weighing unit to be used for calibration, press the **UNITS** *Cal* button until the correct unit is displayed.

Press and hold the **UNITS** *Cal* button until "CAL" is displayed.



With the platform empty, press the **ON/ZERO** *Off* button to capture the scale zero. The display will show "-C-".

After the zero is captured, the required span calibration weight in the selected unit is displayed.

Place the calibration weight on the platform and press **ON/ZERO** *Off* button. The display will again show "-C-".

After span capture, the display will return to the normal weighing mode.

NOTE: The message "CAL E" will appear if an incorrect calibration weight was applied. Repeat the procedure using the correct calibration weight.

4.2 Calibration Locking

By use of an internal switch, the calibration function may be locked (disabled), and unauthorized recalibration prevented.

With the scale powered off, remove the cover under the indicator by unscrewing the two screws at the bottom

Slide the switch on the PCB (marked SW3) to the position marked "CAL LOCK".

Reassemble the cover.

If required, place tamper evident sealing labels over the screw holes or over the housing edges.

If later recalibration is required, the cover will need to be reopened and the lock switch returned to the original position.

NOTE: When the lock switch is set to the CAL LOCK position, the power-on zero range is reduced to 10% of full capacity.

5. MAINTENANCE

Caution: before cleaning, turn off the scale, and 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. Verify battery polarity
Poor accuracy	Improper calibration. Unstable environment	Perform calibration. Move scale to suitable location
Unable to calibrate	CAL LOCK set to ON Unstable environment Incorrect calibration mass	Set CAL LOCK to OFF (see section 4.2) Move the scale to suitable location Use correct calibration mass
Scale displays "Lo bAt"	Battery is discharged	Connect power or change the batteries
Scale displays "Lo Line"	Low Line voltage	Verify source voltage
Scale displays "E"	Weight on pan exceeds capacity	Remove weight from the pan
Scale displays "CALE"	Incorrect Calbiration weight on pan	Use correct calibration weight
Scale displays "UnSt"	Scale is unstable at power up.	Relocate scale to a more stable environment

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** to locate the Ohaus office nearest you.

6. TECHNICAL DATA

The technical data is valid under the following ambient conditions:

Ambient temperature: 5°C to 40°C / 41° to 104° F

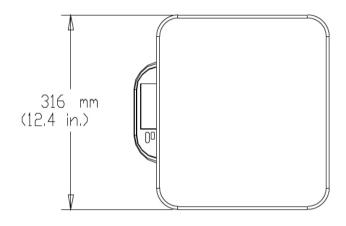
Relative humidity: 10% to 80% relative humidity, non-condensing

6.1 Specifications

TABLE 6-1. SPECIFICATIONS.

Model	C11P9	C11P20	C11P75		
Capacity x Readability	9 kg x 0.005 kg	20 kg x 0.01 kg	75 kg x 0.05 kg		
Capacity & Readability	20 lb x 0.01 lb	44 lb x 0.02 lb	165 lb x 0.1 lb		
Weighing Units		kg, lb			
Modes	Simple Weighing, Dynamic Weighing				
Keypad	2-button mechanical keys				
Calibration Weights	9 kg / 20 lb	20 kg / 40 lb	50 kg / 100 lb		
Display	4-digit 7-segment, 20mm / 0.8 in characters				
Display Indicators	Stability, weighing unit, dynamic weighing, battery status				
Tare range	To capacity by subtraction				
Stabilization Time	≤ 3 seconds				
Maximum Overload	150%				
Operating temperature/humidity	5° to 40°C / 41° to 104°F at 10% to 80% relative humidity,				
range	non-condensing				
Power Requirements	9-12 VDC 100mA AC Adapter (supplied)				
Fower Requirements	3 "C" Alkaline or rechargeable batteries (LR14) optional				
Auto Shut-Off	4 minutes no activity (battery operation only)				
Typical Battery life	300 hours				
Scale Dimensions (mm / in)	316 x 316 x 60/ 12.4 x 12.4 x 2.36				

6.2. Drawings and Dimensions



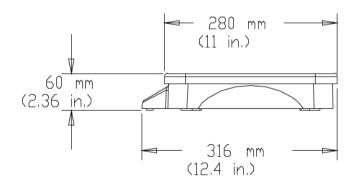


Figure 6-1. Catapult 1000 Series Overall Dimensions.

6.3. Compliance

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

Mark	Standard
CE	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 from Ohaus Corporation
C	AS/NZS4251.1 Emission; AS/NZS4252.1 Immunity

Disposal

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.



Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment.

If you have any questions, please contact the responsible authority or the distributor from which you purchased this device.

Should this device be passed on to other parties (for private or professional use), the content of this regulation must also be related.

Thank you for your contribution to environmental protection.

FCC Note

This equipment has been tested and found to comply with the limits for a Class B 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 B 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 Veritus Quality International (BVQI), confirming that the Ohaus quality management system is compliant with the ISO 9001 standard's requirements. On May 15, 2003, Ohaus Corporation, USA, was re-registered to the ISO 9001:2000 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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