



Ohaus Corporation
29 Hanover Road
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SCHOOL BALANCE
Models
1200-00,1200-50,
1210-00 and 1210-50

Instruction Manual

INTRODUCTION

This manual covers Installation and Operation for the Ohaus School Balances Models 1200-00, 1200-50, 1210-00 and 1210-50.

DESCRIPTION

Ohaus School balances are manufactured from die cast aluminum, are rugged and easy to use. The balances are intended for use in primary and intermediate education applications. They are easy to zero, produce quick readings due to their damping mechanism, have four cornered pans for easy pouring and are designed for specific gravity measurements. Capacity of the balance is 2000 grams with a readability of 0.5 grams. The balance will reproduce precisely for years because of hardened steel knife edges and steel bearings. Model 1200-00 comes equipped with an eight piece mass set and Model 1210-00 is supplied with a four piece mass set. Models 1210-00 and 1210-50 utilize a beam with a sliding poise which introduces the measurement concept commonly found on more advanced weighing instruments. Use of the sliding poise eliminates the need for small masses which are easily misplaced. Models 1200-50 and 1210-50 are not equipped with a mass set.

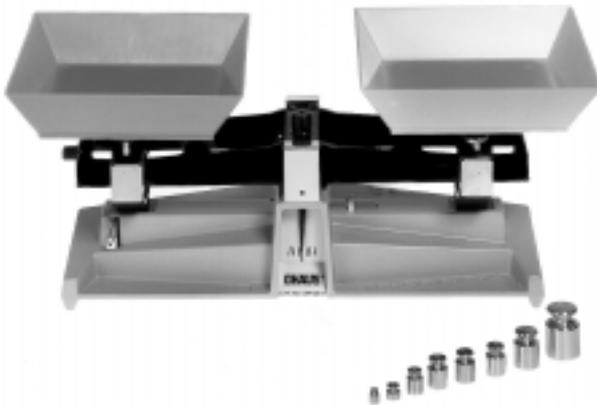


Figure 1. Model 1200-00 With Eight Piece Mass Set.

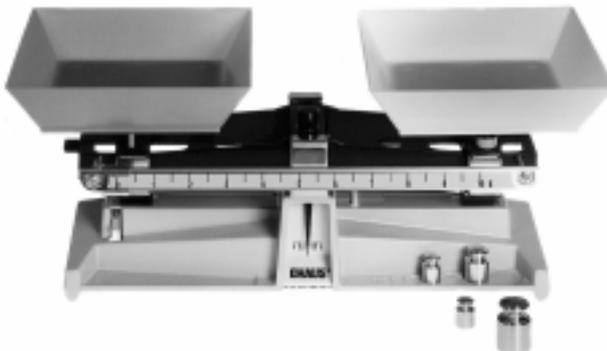


Figure 1. Model 1210-00 With Four Piece Mass Set.

UNPACKING AND SET-UP

Carefully remove the balance and pans from the carton. The corrugated shipping inserts contain packages of push nuts and weights.

Place the balance on a reasonably flat and level surface with the color-coded, removable pans on their matching platforms.

NOTE: If desired, the pans can be permanently attached to the platforms by means of the four push nuts provided, two for each pan. Press them over diagonally opposite studs which will protrude from the bottoms of the pans through the holes in the platforms.

ZEROING THE BALANCE

Before weighing and with no weight on the pans, the balance indicator should line up with the center graduation on the recessed dial. If adjustment is necessary, rotate the zero adjustment wheel located to the right of the dial, see Figure 2.

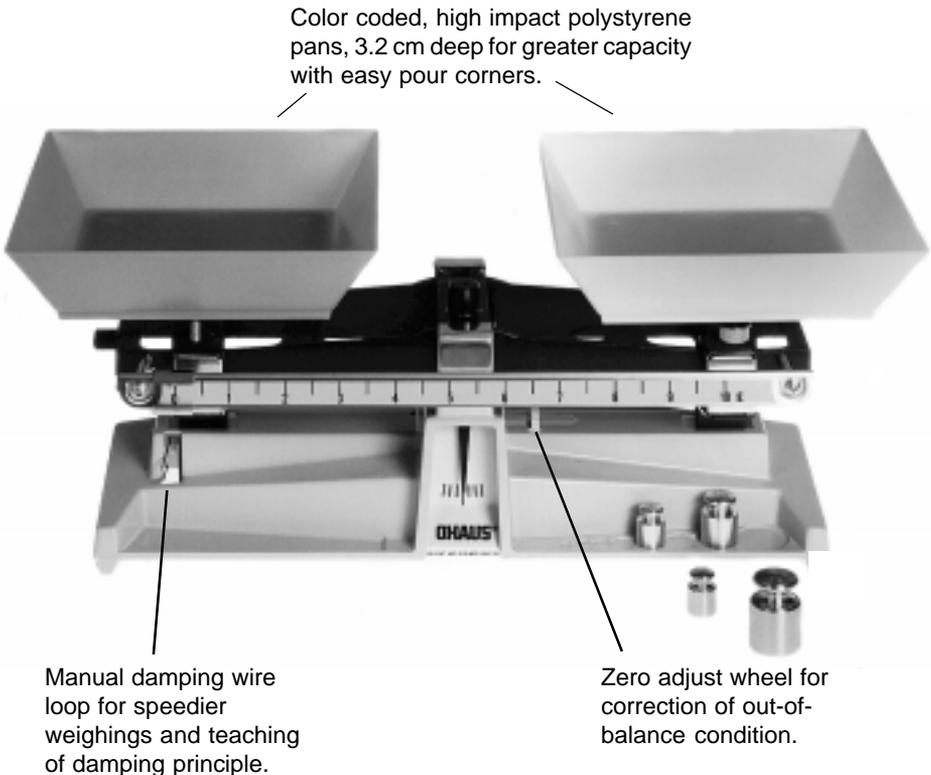


Figure 2. Zeroing the Balance, Model 1210-00 Shown.

WEIGHING

On Models 1200-00 and 1200-50 after obtaining a zero balance, place the objects to be weighed on the red (left-hand) pan. The pointer will swing to the right. Place weights on the yellow (right-hand) pan until the pointer again lines up with the center graduation on the recessed dial. The weight of the object is equal to the sum of the weights needed on the right-hand pan to center the pointer.

On Models 1210-00 and 1210-50, repeat above step and move the poise on the beam to the right until the pointer again lines up with the center graduation on the recessed dial. The weight of the object is equal to the sum of the weights needed on the right-hand pan **plus** the amount indicated on the beam.

Your OHAUS School Balance will weigh objects up to its capacity of 2000 grams with a readability of 0.5 gram.

Models 1200-00 and 1210-00 includes a metric mass (see Figures 3 and 4). Mass sets are available as an accessory for Models 1200-50, 1210-50 and may be obtained from your local OHAUS dealer. See accessories section of this manual.

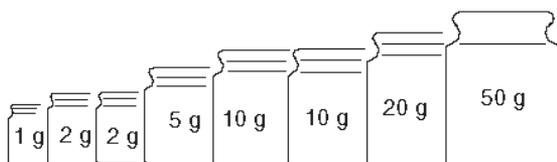


Figure 3. Metric Brass Weight Set for Model 1200-00.

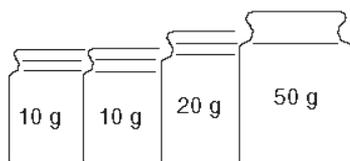


Figure 4. Metric Brass Weight Set for Model 1210-00 .

Store conveniently along right side of balance base.

In order to utilize the full capacity of either balance, additional weights and weight sets are also available from you local OHAUS dealer.

The manual damping wire (see Figure 2) can be used to avoid excessive beam oscillation during zero adjustment and weighing. Use a finger to slowly push the wire loop towards the center of the balance and then release gently when pointer has come to rest.

SPECIFIC GRAVITY DETERMINATIONS

The balance can be elevated for suspending specimens in water by means of a Clamp and Rod Support (see Figure 5).

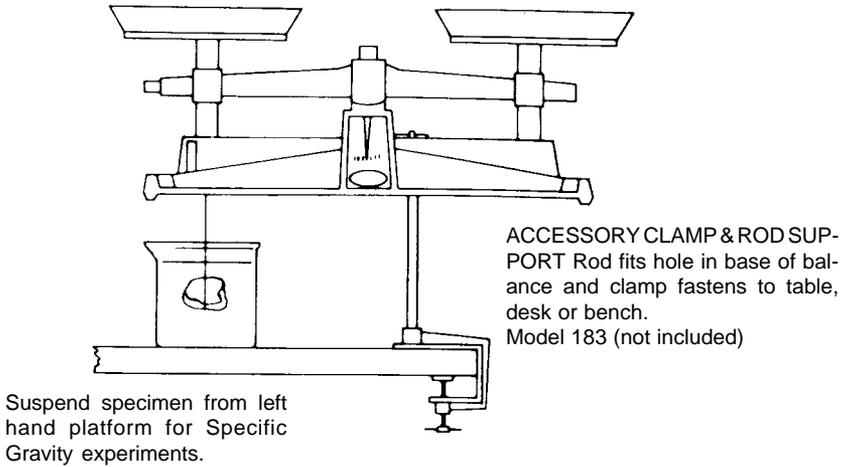


Figure 5. Specific Gravity Measurements.

A specimen can be suspended from the left-hand platform by tying a string around the bottom end of the platform support, underneath the base.

SOLIDS - (denser than water)

To determine specific gravity of solids denser than water, the specimen should be first weighed in air and then weighed immersed in water.

$$S. G. = \frac{\text{Weight in air}}{\text{Weight in air minus weight in water}}$$

SOLIDS - (less dense than water)

To determine the specific gravity of solids less dense than water, it is necessary to attach a sinker and then make the following weighings:

- Weight of body in air
- Combined weight of body in air plus sinker in water
- Weight of both body and sinker in water

$$\text{Specific Gravity} = \frac{a}{b-c}$$

CARE AND MAINTENANCE

With reasonable care, your School Balance can be kept in good working order. Keep it clean and do not drop it. Never apply oil or any lubricant to the pivots or bearings; this will lower the accuracy of the balance.

The removable pans are made of impact resistant material. In case of damage or loss, replacement pans are available.

OPTIONAL ACCESSORIES

<u>DESCRIPTION</u>	<u>OHAUS PART NO</u>
Brass Mass Sets	
Open Mass Block with 12 pieces, 500 g x 1 g	200-00
Open Mass Block with 13 pieces, 1000 g x 1 g	201-00
Plastic Case with 9 pieces, 100 g x 1g	211-11
Plastic Case with 10 pieces, 200 g x 1g	214-11
Plastic Case with 8 pieces, 50 g x 1g	241-03
Accessory Clamp and Rod Support, Model 183	183-00

REPLACEMENT PARTS

Pan (Red)	2743-00
Pan (Yellow)	2743-01
Push Nuts, (four required)	2711-00
Metric Brass Mass Set with 8 pieces 50 g x 1.0 g, Model 1200-00	51005-01
Metric Brass Mass Set with 4 pieces 50 g x 10 g, Model 1210-00	51005-02

SERVICE INFORMATION

For Service assistance in the United States, please call Ohaus Corporation toll-free at (800) 526-0659. An Ohaus Product Service Specialist will be available to help you.

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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