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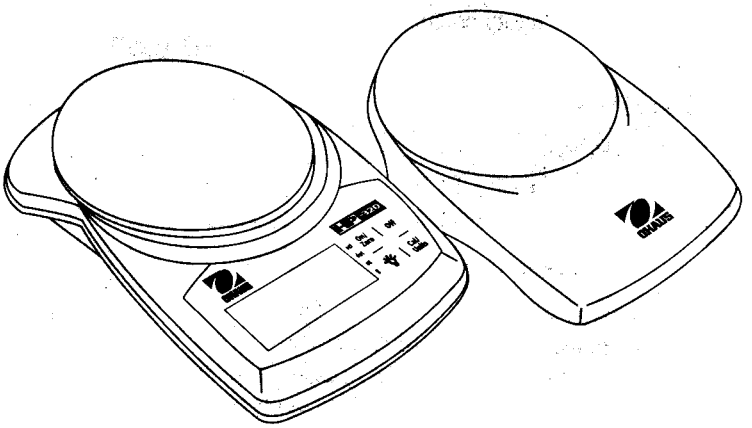

Ohaus Professional Hand-Held Scale Series
Models HP-120 and HP-320
-OPERATING MANUAL-

- The HP-120 and HP-320 only differ in weighing capacity. Unless otherwise specified, the content of this manual applies to both models.
- Calibration weights are not provided with the scale.
- For best results, use the product in the specified optimum operating temperature.
- For best accuracy, perform your mass measurements in clean environments, free of electrostatic and magnetic fields, dust and dirt, moisture, vibration and air currents.
- Use your scale with care, gently loading items to be weighed onto the center of the pan. Avoiding rough treatment will aid in the life of your hand-held scale.

Battery Installation

Two AAA size alkaline batteries are provided.

- Remove battery cover on the bottom of the scale and place them into the compartment as indicated.
- Do not use excessive force or press the weighing pan.
- Re-insert the battery cover.

General Product Features

- **Power Up Test:** When the scale is turned on, all display segments will appear for approximately 3 seconds before resetting to zero

- **Stable Reading Indication:** On the right side of the display, a right facing arrow will appear indicating the weighing mode in which the scale is operating. During weighing, the arrow disappears and will reappear once a stable reading has been reached.

- **Overload:** If the applied load exceeds the capacity of the scale, an "E" will appear on the display and the load should be removed immediately. The scale will return to normal operation.

- **Negative Value:** When a load is removed from the scale, any tared value will be displayed as a negative number. To return to normal operation, the tared value can be canceled by pressing "On/Zero".

- **Zero Function:** Values can progressively be added to a sample. By pressing the "On/Zero" key, the scale display returns to zero and an indication appears at the upper left corner of the display. After adding additional mass, press "On/Zero" again and the original value will be added to the current value, providing a total gross weight of the sample.

- **Auto Shut-Off:** To extend battery life, the scale will automatically turn off after approximately two minutes if no active weighing is occurring.
- **EL Back Light:** The display has an Electronic Luminescence (EL) back light source, which is activated by pressing the Light Bulb key. The back light will automatically turn off after 10 seconds.

Four Button Keypad

- **On/Zero:** Pressing this key turns on the scale. This same key operates the zero feature when the scale in on.
- **Cal/Units:** Press this key briefly to change the weighing unit. The following weight units may be selected: grams (g), ounces (oz), pennyweight (dwt), or troy ounces (oz t).

Press and hold this key to begin the calibration procedure.

- **Light Key:** Pressing turns on the EL back light for 10 seconds.
- **Off:** Pressing this key turns the scale off.

Cumulative Weighing

The following steps outline the procedure for the cumulative weighing of samples.

1. If a container is needed, place it on the pan, then turn the scale on. This will permanently remove the container weight from the cumulative procedure.
2. Add the first sample until the desired weight is displayed.
3. Press "On/Zero" to reset the scale to zero. The symbol (▲) appears in the upper left corner of the display, indicating the previous weight value has been stored.
4. Add a second sample until the desired weight is displayed.
5. Press "On/Zero" again. The (▲) symbol will disappear and the display will show the combined weight of the first and second samples. Repeat steps 2 through 4 for additional items.

Note: When the entire load is removed from the balance, the display will show a negative value equal to the zeroed value of the container (if used). Turn the scale off and on again to reset a new zero if required.

Calibration

For best results, calibrate the scale at regular intervals. This is especially important if the scale is in use for prolonged periods.

1. Allow the scale to warm up and stabilize for two minutes before commencing the calibration procedure.

2. Press and hold the "Cal/Units" key until the calibration weight flashes on the display.

3. With the calibration weight value flashing, press the "Off" key, and the display will read "AL O." After pausing for at least two seconds, place the correct calibration weight gently on the center of the weighing pan.

4. The display will momentarily show "AL F" and then return to active weighing. Calibration is complete when the display correctly shows the calibration weight, and the display has stabilized.

5. Remove the calibration weight and turn the scale off. Now turn on the calibrated scale.

Note: If "AL E" appears on the display instead of "AL F", it indicates that a calibration error has occurred and the process should be repeated. The message "AL E" will appear if the calibration steps are not followed in the correct order or if an incorrect calibration weight was applied.

Accessories Supplied

- Two AAA size alkaline batteries
- Plastic molded protective cover

Specifications

	HP-120	HP-320
Capacity x Readability	120.0 x 0.1g 4.23 x 0.01oz 77.2 x 0.1dwt 3.86 x 0.01oz t	320.0 x 0.1g 11.28 x 0.01oz 205.8 x 0.1dwt 10.29 x 0.01oz t
Linearity	±0.1g	±0.2g
Weighing units	g, oz, dwt, oz t	
Zero range	to capacity by subtraction	
Calibration	Auto calibration from keypad	
Stabilization time	3 seconds	
Maximum overload	150% of capacity	
Overload indication	[E]	
Underload indication	Negative value	
Auto shut-off	2 minutes no activity	
Optimum operating temperature	64°-77°F/18°-25°C	
Weigh pan size L x W (in/cm)	3.25 x 3.0/8.3 x 7.6	
Power requirements	2-AAA alkaline batteries	
Dimensions L x W x H (in/cm)	5.35 x 3.25 x 0.8 / 13.6 x 8.3 x 2.0	
Net Weight (lb/kg)	0.34/0.16	

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Limited Warranty

Ohaus hand-held scales are warranted against defects in materials and workmanship for a period of 12 months from the date of delivery. 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.

The 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.

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With offices in England, Germany, France, Spain, Switzerland, Italy, Poland, Mexico, Japan, Korea and China.

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