



Traveler Scales
Instruction Manual

1. INTRODUCTION

This manual contains installation, operation and maintenance instructions for the Traveler Scales. Please read the manual completely before using the scale.

1.1 Safety Precautions

Please follow these safety precautions:

- Verify that the Power Adapter input voltage matches the local power supply voltage.
- Use the scale only in dry locations.
- Do not operate the scale in hostile environments.
- Do not drop loads on the pan.
- Do not place the scale upside down on the pan.
- Service should be performed only by authorized personnel.

1.2. Controls

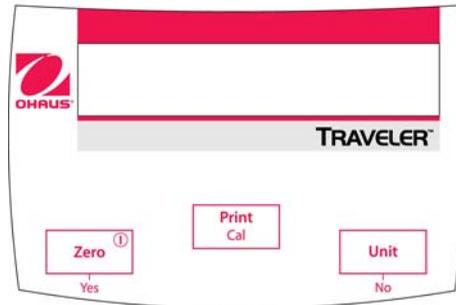


Figure 1-1. Controls.

TABLE 1-1. CONTROL FUNCTIONS

Key Name	Function
On-Zero Off Yes	• Primary function (Short Press) – If scale is Off, turn On. If scale is on, perform Zero/Tare function
	• Secondary function (Long Press) – Turn scale Off
	• Menu function – (Yes) This key is used to accept the currently displayed setting
Print Cal	• Primary function (Short Press) – Send the current display value to serial port if installed
	• Secondary function (Long Press) – Starts Span calibration as available in Menu

Key Name	Function
Unit No	<ul style="list-style-type: none"> Primary function (Short Press)– Advances to next available unit
	<ul style="list-style-type: none"> Menu function – (No) This key is used to reject the displayed setting and advance to next available setting

2. INSTALLATION

2.1 Package Contents

- Scale
- Pan
- Draft Shield
- Power Adapter
- Calibration Weight (on some models, see Table 6.1)
- Instruction Manual
- Warranty Card

2.2. Location

Use the scale on a firm, steady surface. Avoid locations with excessive air currents, vibrations, heat sources, or rapid temperature changes.

2.3. Transportation Lock, Calibration Lock & Pan Installation

Before using the scale the Transportation Lock must be released. At the bottom of the scale slide the locking pin to the  position. See Figures 2-1.

If the scale is to be calibrated by the user ensure that the Calibration Lock is set to  position. See Figure 2-2.

Install the metal pan over the plastic sub-platform.

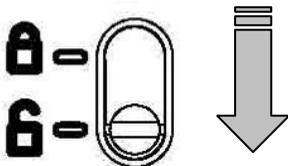


Figure 2-1. Release Transportation Lock

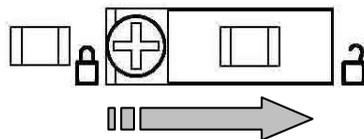
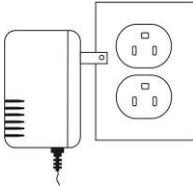


Figure 2-2. Release Calibration Lock

2.4 Connect Power

A Power Adapter is used to power the scale. Connect the Power Adapter to the power outlet (see Figure 2-3) and the power plug to the back of the scale (see Figure 2-4)



Figures 2-3, Power Adapter



For use only with UL or CSA Certified (or equivalent approved) power adapter, which is a Class 2 or a Limited Power Source device.

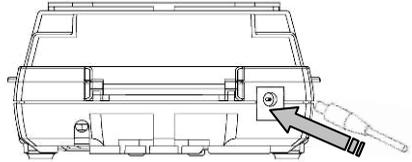
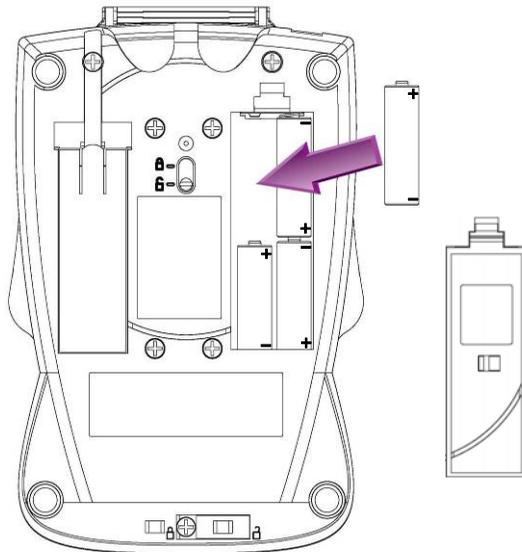


Figure 2-4, Power Plug

2.5 Battery Installation and Use

The scale may also be powered by batteries. Remove the battery cover and install four alkaline AA (LR6) type batteries, (not included). Refer to Figure 2.5 to properly install the batteries. Under battery power a battery symbol is shown on the left side of the display. The Auto-Off setting is useful for conserving battery power, see section 4.2.1.



Figures 2-5, Battery Installation

2.6 Initial Calibration

Power on the scale by pressing **On-Zero**. Allow at least one minute for the scale to stabilize before calibrating. Press and hold the **Print/Cal** button until [**CALL**] is displayed. The display flashes [-**Ⓕ**-] while zero reading is taken. The display flashes the required span mass. Put the indicated calibration mass on the pan and press **Yes**. The display flashes [-**Ⓕ**-]. When calibration is complete, [**done**] is displayed.

Note: Calibration is also available in the Setup menu, see section 4.2.1.

3. OPERATION

Some weighing Units of measure may initially be unavailable. They can be enabled in the Main menu Unit [**μ.g.**, **g.**], see section 4.

3.1 Draft Shield

The draft shield was designed with an easy to remove center piece which can be used as a high quality sample tray. Even with the center piece removed the draft shield will provide increased protection from rough environments while maintaining weighing speed. To remove the center piece, rotate counter-clockwise. See Figure 3-1. With the sample tray firmly in place the unique shape of the draft shield also allows for the efficient stacking of one scale on top of another.

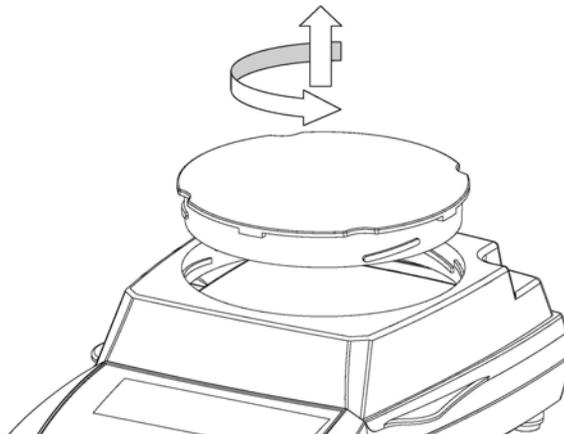


Figure 3.1, Sample Tray Removal

3.2 Weighing Mode

Press **Unit** to advance to next available weighing Unit.
 Press **Zero** to zero the scale and then place objects to be weighed on the pan.

4. SETTINGS

The Settings allows the user to customize the scale.

4.1 Menu Structure

Table 4-1 illustrates the menu structure.

TABLE 4-1 MENU

S.E.t.u.P		U.n.i.t.	E.n.d.
A-OFF	On OFF	U.n.i.t	g On OFF
SPRN	Press Yes or No	U.n.i.t	N On OFF
L.in	Press Yes or No	End	Press Yes or No
End	Press Yes or No		

Notes:

Unit	Symbol	Factor
Gram	g	1
Newton	N	9.806e-3

Default menu settings are shown in **bold**.

4.2 Menu Navigation

Main level menus are identified by decimal points between each letter, for example **[S.E.t.u.P]**.

Enter Menu: With the scale off, press and hold the **On** button. Continue holding the **On** button until **[S.E.t.u.P]** is displayed. Each main menu is entered by pressing **Yes**. Advance to the next main menu by pressing **No**.

Changing Settings: Within each main menu are sub-menus. Enter each sub-menu by pressing **Yes**. Advance to the next sub-menu by pressing **No**. To accept the displayed sub-menu setting, press **Yes**. To advance to the next setting, press **No**.

Menu Exit: The last item in each sub-menu is **[End]**. Press **Yes** to return to the main menu. The last item in the main menu is **[E.n.d]**. Press **Yes** to return to the previous weighing mode.

4.2.1 Setup Menu [S.E.E.U.P.]

The Setup menu contains the following sub-menus:

Auto-Off [A-OFF]: Auto Off settings: **On OFF**
Setting [On] will automatically turn the scale off after no activity is detected for 4 minutes.

Span Calibration [SPAN]: Uses two weight values: Zero and a value at or near the full capacity of the scale. Span calibration should be performed if the scale is repositioned or when the room temperature changes significantly.

Linearity Calibration [L. n]: Uses three weight values: Zero, a mid-range value and full capacity. Generally this calibration is not required unless testing shows that the linearity error exceeds the linearity tolerance in the specification table. Accuracy of weights is important to maintain weighing integrity.

4.2.2 Unit Menu [U.N. U.]

Each Weighing Unit may be individually set to **On** or **OFF**.
See Table 4-1 for the symbols associated with each Unit or Mode.

4.2.3 Other Menus

Additional Menus are available if a serial interface option is installed in the scale. These menus are explained within the user manual of each option kit.

4.3. Calibration Lock Feature

Sliding the switch fully to the  lock position prevents calibration of the scale. Using a paper or wire seal will physically secure the switch if required.



Figure 4-1. Locking and Sealing the Calibration Lock Switch.

4.4 Weigh Below Feature

The Weigh Below Hook is stored inside the battery cover. Thread the hook into the access hole at the bottom of the scale. Mount the scale onto an appropriate assembly that allows free working space below the hook. See Figure 4-2. **Note:** Never allow the scale to rest directly on the hook.

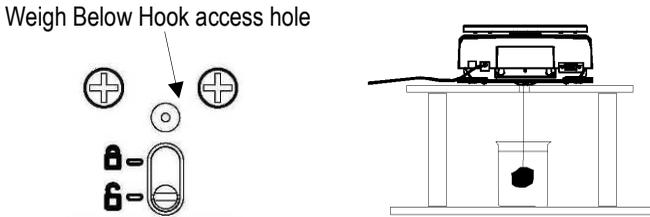


Figure 4-2. Setup for using the Weigh Below Hook.

5. MAINTENANCE

5.1 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	Remedy
Cannot turn on	<ul style="list-style-type: none"> No power to scale Empty or incorrectly installed batteries 	<ul style="list-style-type: none"> Verify AC adapter connections and voltage. Replace batteries, check polarity.
Poor accuracy	<ul style="list-style-type: none"> Improper calibration Unstable environment Transportation Lock is set Debris touching the pan Draft shield is touching the pan or sample. 	<ul style="list-style-type: none"> Perform calibration. Move scale to suitable location. Slide the pin to the unlocked position. Clean any debris next to or under the pan. Check that pan is fully seated, check sample height.
Cannot calibrate	<ul style="list-style-type: none"> Unstable environment Incorrect calibration mass Transportation Lock is set Calibration Lock switch is set 	<ul style="list-style-type: none"> Move the scale to a suitable location. Use correct calibration masses. Slide the pin to the unlocked position. Slide the switch to the unlocked position.
Err 1	<ul style="list-style-type: none"> Invalid Checksum data. 	<ul style="list-style-type: none"> Cycle scale off/on. Contact Ohaus or authorized dealer.
Err 2	<ul style="list-style-type: none"> Over-load or Under-load condition. Transportation Lock is set Improper calibration 	<ul style="list-style-type: none"> Verify pan is installed and/or excess load is removed from pan. Slide the pin to the unlocked position. Perform calibration.
Err 4	<ul style="list-style-type: none"> Invalid calibration mass. 	<ul style="list-style-type: none"> Verify correct calibration mass is being used.
Err 8	<ul style="list-style-type: none"> RS232 buffer is full. 	<ul style="list-style-type: none"> Cycle scale Off/On. Check RS232 settings in scale and computer when RS232 option is installed.
Err 9	<ul style="list-style-type: none"> Internal data error. 	<ul style="list-style-type: none"> Contact Ohaus or authorized dealer.
 (Flashing)	<ul style="list-style-type: none"> Battery power is low. 	<ul style="list-style-type: none"> Replace batteries soon.
ERR1 LOW	<ul style="list-style-type: none"> Battery power is too low for proper operation. 	<ul style="list-style-type: none"> Replace batteries.

5.2 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

6.1 Specifications

TABLE 6-1. SPECIFICATIONS

Model	TA152	TA302	TA301	TA502	TA501	TA1501	TA3001	TA5000
Capacity (g)	150	300	300	500	500	1500	3000	5000
Readability (g)	0.01	0.01	0.1	0.01	0.1	0.1	0.1	1
Linearity (d)	±1	±1	±1	±2	±1	±1	±1	±1
Repeatability (g)	0.01	0.01	0.1	0.01	0.1	0.1	0.1	1
Span Mass (g)	100*	200*	200*	300	300	1000	2000	3000
Linearity Masses (g)	100 150	200 300	200 300	300 500	300 500	1000 1500	2000 3000	3000 5000
Weighing Units	Gram, Newton							
Tare Range	To Capacity by Subtraction							
Stabilization Time	< 3							
Operating	50° - 104°F / 10° - 40°C							
Operating Humidity	30%-90%							
Pan Size (mm)	120 dia.					123 x 124		

*Included with Scale

6.2. Accessories

TABLE 6-2. ACCESSORIES

ACCESSORY	PART NUMBER
RS232 Interface Kit	72206287
USB interface Kit	72206288
Specific Gravity Kit	72202685
Security Device	76288-01
Auxiliary Display	TAD7
Printers	See www.ohaus.com , or contact dealer
Adapters, RS232 to Printer	
Calibration masses	

6.3 Drawings

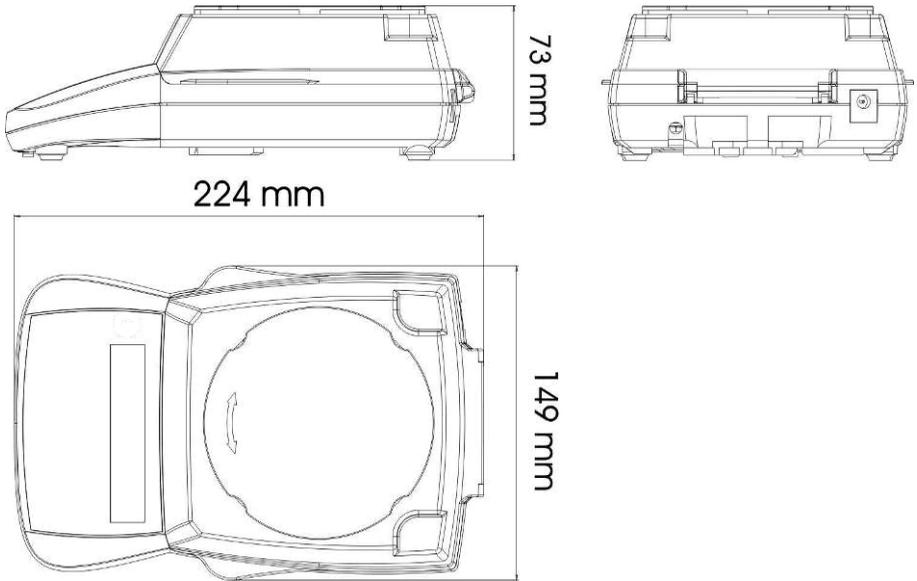


Figure 6-1. Overall Dimensions

6.4 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 from Ohaus Corporation.



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.

For disposal instructions in Europe, refer to www.ohaus.com/weee.

Thank you for your contribution to environmental protection.

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 15, 2003, Ohaus Corporation, USA, was re-registered to the ISO 9001:2000 standard.

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 in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

Industry Canada Note

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

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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