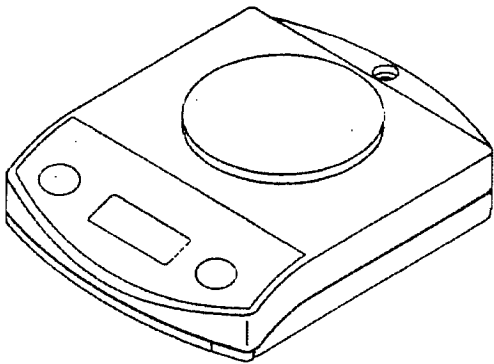


Portable Electronic Balances

99g, 150g, 300g, 500g,

1,000g and 5,000g

Instruction Manual



NOTICE:


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 the 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.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the department of communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", NMB-003 édictée par le ministre des communications.

Unauthorized changes or modifications to this equipment are not permitted.

 This device corresponds to requirements stipulated in 73/23/EEC and features radio interference suppression in compliance with valid EC Regulation 89/336/EEC. Note: The displayed value may be adversely affected under extreme electromagnetic influences, eg. when using a radio unit in the immediate vicinity of the device. Once the interference has been rectified, the product can once again be used for its intended purpose.

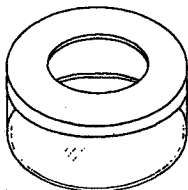
Cet appareil correspond aux exigences selon la norme 73/23/CEE et est déparasité conformément à la directive de la CE 89/336/CEE en vigueur. Remarque: Dans des conditions d'influences électromagnétiques extrêmes, par exemple en cas d'exploitation d'un appareil radio à proximité immédiate de l'appareil la valeur d'affichage risque d'être influencée. Une fois que l'influence parasite est terminée, le produit peut être de nouveau utilisé de manière conforme aux prescriptions.

Dieses Gerät entspricht den Anforderungen nach 73/23/EWG und ist funkenstört entsprechend der geltenden EG-Richtlinie 89/336/EWG. Hinweis: Unter extremen elektromagnetischen Einflüssen z.B. bei Betreiben eines Funkgerätes in unmittelbarer Nähe des Gerätes kann eine Beeinflussung des Anzeigewertes verursacht werden. Nach Ende des Störeinflusses ist das Produkt wieder bestimmungsgemäss benutzbar.

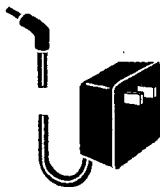
DESCRIPTION

Your balance is a precision weighing instrument, designed to provide years of service with features such as front panel controls, auto shut-off, stainless steel pan and a weigh below hook. It can be operated by a 9 Volt battery or with the AC Adapter supplied.

UNPACKING



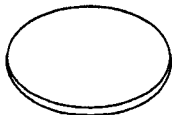
Draft Shield
(99g Model only)



AC Adapter



Weigh Below Hook*
(Stored in battery cover)



Stainless Steel Pan

* Hook supplied with 150g, 300g, 500g, 1kg and 5kg models.

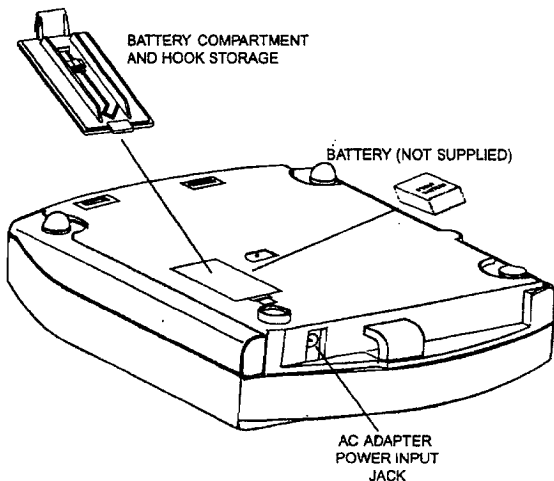
1. Carefully unpack the balance and verify that all items are on hand. Save the packing material for transporting the balance.
2. Remove the cardboard insert from under the pan support.

INSTALLATION

For best performance, the balance should be used in a clean, stable environment. Do not use the balance in environments with excessive drafts, near magnetic fields or equipment that generates magnetic fields, rapid temperature changes, vibrations or corrosive vapors.

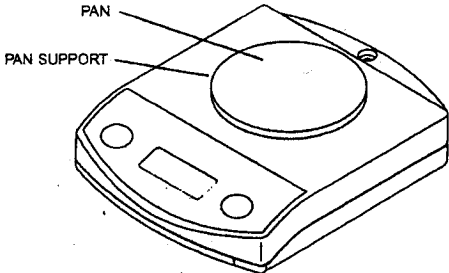
Power

Connect the AC Adapter at the rear of the balance. For portable operation, install a 9 V battery in the battery compartment as shown in the illustration.



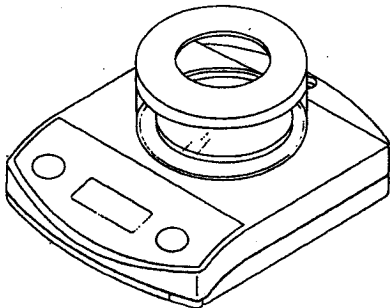
Pan Installation

Place the pan over the pan support as shown in the illustration.



Draft Shield

For the 99g Model, the draft shield may be installed over the pan.



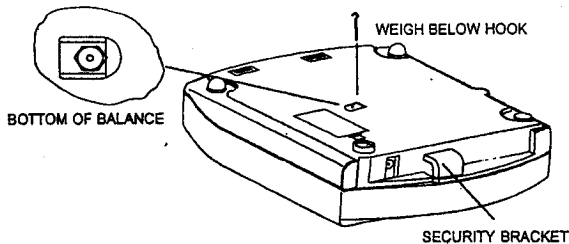
Security Bracket

A security bracket is provided at the rear of the balance which allows the balance to be secured with an optional cable and lock accessory.

Weigh Below Hook

For below balance weighing applications (eg. density determination), the weigh below hook may be installed at the bottom of the balance as shown.

Do not over tighten the screw, tighten finger tight. Place the balance on a suitable stand which will allow below balance weighing.



OPERATION

Turning the Balance ON

Press **On**. All segments will appear briefly followed by a software revision number and then **00.00**. Allow 5 minutes warm-up time.



Turning the Balance OFF

To turn the balance OFF, press and hold **Off** until the display indicates **OFF**, then release.

Weighing

1. If it is necessary to rezero the display, momentarily press **On**.
2. Place item(s) to be weighed on the pan and read the weight on the display.

The stability indicator * appears when the reading is stable.

Taring

When weighing items that must be held in a container, taring subtracts the container's weight from the total weight on the pan.

1. With an empty container on the pan, press **On** to zero the display.
2. As material is added to the container, the net weight is displayed. Tared weight remains in balance memory until **On** is pressed again.

MENU

The User Menu permits you to activate the Auto Shut-off feature and Linearity calibration (calibration masses are required).

1. With the balance off, press and hold **On** until **MENU** is displayed, then release it. The first menu item **A OFF** will be displayed.
2. Repeatedly press **Off** to display the desired menu item to be used or to exit, press **Off** until **End** is displayed, then press **On**.

MENU

- A.OFF - Set to On or Off.
- LIN - Performs linearity calibration.
- END - Exit menu and store settings.

Auto Shut-off

When Auto Shut-off is activated, the balance will shut off after three minutes of non use.

1. When the balance displays **A OFF**, press **On** to view the current setting **On** or **OFF**.
2. To change the displayed setting, press **Off**.
3. To accept the displayed setting, press **On**. The display will again indicate **A OFF**.
4. Change to another menu item, or exit as described above.

SPAN CALIBRATION

Calibration masses are available for checking and calibrating the balance.

Balance Capacity	Required Calibration Mass
99g*	100g
150g	100g
300g	200g
500g	200g
1kg	1kg
5kg	4kg

The balance has been calibrated before shipment, however calibration can be affected by changes in location, temperature, or rough handling. Check the balance with a calibration mass. If calibration is required, proceed as follows:

1. With the balance on, press and hold **On** until **[AL]** is displayed, then release it. **- [-** will be displayed followed by the value of the mass which must be placed on the pan.

Do not disturb the balance while - [- is displayed.

2. Place the required mass on the pan and momentarily press **On**.
3. When the weight on the pan is displayed with the stability indicator, the balance is calibrated.

*The 99g model is calibrated at 100.00g. Readability changes to 0.01g for calibration purposes.

LINEARITY CALIBRATION

Calibration masses are available as accessories for performing this procedure.

Balance Capacity	Required Calibration Mass
99g	50g, 100g
150g	50g, 100g
300g	100g, 200g
500g	200g, 200g
1kg	500g, 500g
5kg	2kg, 4kg

1. When the balance displays L in, press **On**. $-[-$ will be displayed followed by the value of the mass which must be placed on the pan.
Do not disturb the balance while $-[-$ is displayed.
2. Place the required mass on the pan and momentarily press **On**.
 $-[-$ is displayed, then the value of the second mass to be placed on the pan is displayed.
3. Place the required mass on the pan and momentarily press **On**.
4. When the weight on the pan is displayed with the stability indicator, the balance is calibrated.

When Linearity calibration is completed, the balance automatically exits the menu and stores any changes you have made.

CARE AND MAINTENANCE

To keep the balance operating properly, keep the housing and platform clean. If necessary, a cloth dampened with a mild detergent may be used. Unplug the AC Adapter when not in use. For long term storage, remove the battery.

TROUBLESHOOTING

SYMPTOM	PROBABLE CAUSE	REMEDY
No Display.	Power Adapter not connected.	Connect AC Adapter.
	Battery is dead.	Replace battery.
BAT Indicator is on.	Battery is weak.	Replace battery.
Incorrect weight reading.	Balance out of calibration.	Calibrate the balance.
	Balance was not rezeroed before weighing.	Press On with no weight on the pan, then weigh item.
Calibration procedure does not work.	Incorrect calibration masses being used.	Use correct masses.
Balance won't store Auto-Shut-off selections made in menu.	END selection was not used to exit menu.	You must use END to exit menu and save selections.

Error Codes

- Err 0** Invalid checksum data. The balance may need recalibration, particularly linearity calibration. If the error persists after recalibration, the balance must be serviced.
- Err 1** Sample being weighed exceeds the capacity of the balance. If error occurs when the sample is within the balance capacity, balance may be incorrectly calibrated. An underload such as the pan off of the balance could also display Err1. Recalibrate the balance.
- Err 4** Incorrect or no calibration mass used when performing calibration procedure. Error will flash momentarily, then balance will use previous calibration data. Recalibrate correctly.
- Err 9** Internal data error. Return balance for servicing.

REPLACEMENT PARTS

AC Adapter 120 V

Pans:

3" (7.6cm) dia. for 99g balance

4" (10cm) dia. for 150g balance

4.75" (12.1cm) dia. for 300g and 500g balances

5" x 5.75" (12.7cm x 14.6cm) for 1kg and 5kg balances

Weigh below hook (150g, 300g, 500g, 1kg and 5kg balances)

ACCESSORIES

Security Device

Scoops

Carrying case

Calibration masses

Contact your balance supplier for replacement parts and accessories.



SPECIFICATIONS

Model	99g	150g	300g	500g	1kg	5kg
Capacity (g)	99	150	300	500	1kg	5kg
Readability (g)	0.001	0.01	0.1	0.1	0.1	1
Weighing modes	grams					
Tare range	To capacity by subtraction					
Over range capacity*	103%					
Operating temperature	50° to 104° F/10° to 40° C					
Operating humidity range	10% to 85% RH					
Power requirements	AC Adapter (supplied with balance) or one 9 V battery (not included)					
Display (in/cm)	LCD (0.7/1.8 high)					
Pan size (Dia.) (in/cm)	3/7.6	4/10.2	4.75/12.1		5 x 5.75/ 12.7 x 14.6	
Dimensions (W x H X D) (in/cm)	6.75 x 2.4 x 8.25/17.1 x 6.2 x 21					

* For the 99g model, over range is based on 100.00 grams.

