

SNOWREX

Precision Balances

Model: EA

EA-300/600/1500/3000



You have purchased a quality precision weighing instrument that requires handling with care.

Read entire contents of this **Operating Manual** prior to operating your new instrument.

Disclaimer Notice

Calibrate your instrument using reference weights of the appropriate tolerance (class).
An instrument can be no more accurate than the standard to which it has been compared.
For assistance in the selection of reference weights, please contact the factory.

Caution: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Introduction

Thank you for choosing one of our instruments. Your instrument is designed and manufactured to the most rigorous standards in order to give you years of service.
First, check the contents of the shipping carton. You should find the following :



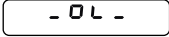
* **Manual** * **Instrument** * **AC Adapter**

Next, follow the instructions for installing your instrument.

Now you are ready to begin using your instrument. To take advantage of its many features, carefully read your operating manual.
It contains step-by-step procedures, examples, and other vital information.

Warning: Use of this product in a manner not specified by the manufacturer may impair any safety protection provided by the equipment!

Error message

Symptom	Cause	Solution
	Over load :	
	* Weighing range exceed	> Unload scale or reduce preload
	Under load :	
	* Weighing pan not in place	> Ensure the weighing pan is correctly installed and surrounding parts are not touching
	* Weighing range zero below	> Set scale to zero
	* Contact between weighing	> Apply pre-load
	Zeroing not possible :	
	* Zeroing outside the zero setting range	> Ensure that zeroing is performed in the admissible range (20% of Cap.)

RS232C Specifications

A. Specification :

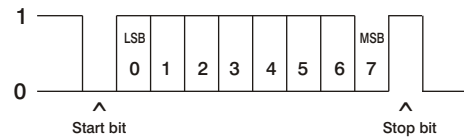
Baud rate : 2400 / 9600

Parity : none

Data bit : 8

Stop bit : 1

B. Data format :



no. 1 2 3 4 5 6 7 8 9 10

SP/- X X X X X X X CR LF

C. Connections : (DB-09 male)

Pin no. 2 5 others

TXD GND NC

Specifications

Model	EA-300	EA-600	EA-1500	EA-3000
Range	300g	600g	1500g	3000g
Readability	0.01g	0.02g	0.05g	0.1g
Linearity	+/-0.01g	+/-0.02g	+/-0.05g	+/-0.1g
Pan size	φ120	φ120	180x145mm	180x145mm
Permissible	100g	200g	500g	1000g
Calibration	200g	400g	1000g	2000g
Weights	300g	600g	1500g	3000g

Common Specifications : Unit dimensions (L x W x H) 213 x 193 x 66mm.

Net Weight : 1.9 kg.

Electrical Requirements : 9V/500mA, AC adapter included.

Preparation

This product is intended for indoor use.

- * Select a suitable work area.
- * Work area should be relatively free from drafts and vibrations.
- * Work surface should be level and rigid.
- * Do not locate near magnetic materials or equipment/instruments which use magnets in their design.
- * Avoid areas which have variations in room temperatures or have excessive room temperatures. Room temperatures above 40°C or below 15°C could be affect Instrument operation and accuracy.

Installation

Remove balance and accessories from the carton.

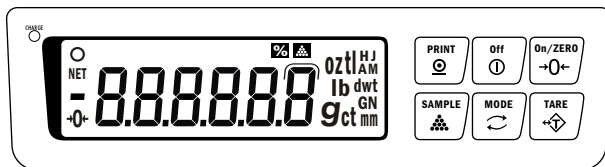
Save packing material for transportation purposes.

- * If using the AC adapter, insert power cord into the receptacle located on the side panel of the balance (behind On/Off switch). Firmly push in the plug.
- * Allow the balance to warm up for 30 minutes prior to use.
- * Your balance features a numeric display that continuously shows your weighing results.

Outline descriptions



Function keys



1. Turns balance On.
2. Captures a new center of zero.



Turns balance Off.



Reduce gross weight on pan as tare weight.



1. Long press for selecting various units of weight.
2. Short press to toggle switch for display total weight, quantity or percentage.



1. Short press for parts counting and percentage weighing.
2. Long press for comparison mode setting.



Print out.

Programme

E. Print out	Pr 0	Off
	Pr 1	Manual
	Pr 2	Auto
F. Baud rate	br 9600	9600
	br 2400	2400
G. Cal. Weight setting	CA 200	200 g
	CA 400	.
	CA 500	.
	CA 600	.
	CA 1000	.
	CA 1200	1200 g
	CALd	Calibrate done

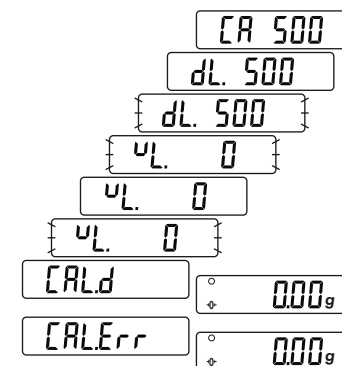
Calibration

The window display:

1. Keep empty on the pan.
2. Long press the key around 5 seconds.

The calibration process will run step by step automatically.

- a_ The setting weight value appears.
- b_ Put on the Calibration weights on the pan.
- c_ Span calibrating.
- d_ Span calibrate done and go Zero calibration.
- e_ Unloading Calibration weights on the pan.
- f_ Zero calibrating.
- g_ The weight calibration to be done.




3. If the different weight is used for this calibration, The error message appears and the balance returns to weight display.
4. Check the weight and retry the weight calibration.

The displayed weight should be within the range of Calibration weights +/- 0.05% of Max. Then weight calibration can be work.

Programme

Press and hold any key and then press , and display shows 

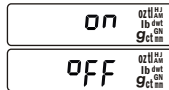
Press  key repeatedly to cycle through different weigh modes available.

Press  key for **parameter selecting**. When desired mode appears,

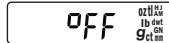
Press  key for **setting**. The programme sequence as follows:

A. Weighing Units

Gram	g
Oz(av)	oz
Troy oz	ozt
Tael(TW)	tl
Tael(HK)	tl ^H
Tael(HK-Jewelry)	tl ^{HJ}
Tola(Anna)	tl _A
Tola(Masha)	tl _M
Pound(av)	lb
Penny weight	dwt
Grain	GN
Carat	ct
Momme	mm



ON : Enable



OFF : Disable

B. Auto zero



Off

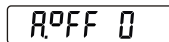


+/- 1d



+/- 2d

C. Sleep mode



Off



5 minutes after



10 minutes after



20 minutes after



30 minutes after

D. Backlit



Off



Active lighting



Auto lighting while loading.



Auto lighting when the weight value changed or any key operation is done.
Auto turn off when the weight data becomes and stays stable for some moment.


Operation

Your new balance weighs in different units and can perform parts counting and percent of weight functions.





A. Taring (Zeroing)

All models have taring (zeroing) capabilities up to their total weight capacity.





To weigh a sample in it's container with the display showing the weight of the sample use the following Tare procedure.

1. Place sample container on pan and then press the  .
2. Now place sample in it's container.
3. When the balance is stable, the display shows the weight of the sample.

B. Counting Function

1. Count the desired amount sample pieces (10, 20, 50, 100, or 200 total pieces) and place on the pan.
2. Press the  to display total count numbers of 10, 20, 50, 100, or 200. This number will cycle, press the  again to select sample size once it is displayed. And an icon "  " will be displayed.
3. You are now ready to perform parts counting of those specific pieces. Press the  for the total weight. Repeat step 1 through 3 for each type of piece to be counted.

C. Percentage Function

1. Count the desired sample pieces and place on the pan, press the  .
2. When the display shows " 100.0 ", and an icon "  " will be displayed.
3. Press the  If you want to know total weight, press the  .

Operation

D. Comparator (Hi/Lo) Function

The results of the comparison are indicated by HI, OK or LO on the display.

The comparison is as follows:

$$LO < \text{Lower limit value} \leq OK \leq \text{Upper limit value} < HI$$

The upper limit and lower limit numerical values are common to each of the WEIGHING, COUNTING and PERCENT mode. The example as follows.

Upper limit value "002010": "20.10 g" "2010 pcs" "201.0%"

Lower limit value "000660": "6.60 g" "660 pcs" "66.0%"

Selecting a comparison mode

- Press and hold key to display
 (If the comparison mode is already set, press the key to go to "Entering the upper and lower limit values".)
- Press the key, then the balance displays
- Press the key several times to display
- Press the key to store the settings.

Entering the upper and lower limit values

- With displayed. Press the key.
 Entering the upper and lower limit values using the following keys.

	Key	To select the digit blinking to change.	
	Key	To set the value of the digit selected.	
	Key	To store the value and proceed to next step.	
	Key	To cancel the value and proceed to the next step.	

- With displayed. Press the key.
 Entering the upper and lower limit values using the following keys.

	Key	To select the digit blinking to change.	
	Key	To set the value of the digit selected.	
	Key	To store the value and proceed to next step.	
	Key	To cancel the value and proceed to the next step.	

- Press the key to return to weighing mode.

Programme

Long press key around 5 seconds and entering programme sequence.

Press key repeatedly to cycle through different modes available, and to select the digit blinking to change.

Press key to set the value of the digit selected.

Press key to store the value, appears and proceed to the next step.

Press key to cancel the value and proceed to the next step.

1. >>>>>>>

Hi-Lo setting		Off
		Compares all data
		Compares all stable data

2. >>>>>>>

3. >>>>>>>

4. >>>>>>>

Beep sounds setting at HI		Off
		Short sounds bi.bi.bi...
		Long sounds bi--bi--bi--

Beep sounds setting at LO		Off
		Short sounds bi.bi.bi...
		Long sounds bi--bi--bi--

Beep sounds setting at OK		Off
		Short sounds bi.bi.bi...
		Long sounds bi--bi--bi--

Press key to exit programming and restarting the balance.