Genie Series Precision Balance

The manufacturer warrants all products shipped against defects in MATERIAL and WORKMANSHIP for a period of one year for standard line of products. All OEM and custom build orders carry (1) year warranty for MATERIAL and WORKMANSHIP. Warranty will not be applicable for Battery and adaptors. Normal wear and tear, injury by natural forces, user neglect and purposeful destruction are NOT covered by this warranty. Technical Service MUST be performed by authorized staff or factory authorized personnel. Manufacturer's obligation is limited to replacement of parts that have been so returned and are disclosed to manufacturer's satisfaction to be defective. The provisions of these warranty clauses are lieu of all other warranties, expressed or implied, and of all obligations or liability in connection with sale of said articles. SMART makes no warranty of merchantability or fitness for a particular purpose. By accepting the goods, the buyer acknowledges that the buyer has determined that the goods are suitable for the buyer's purposes. In no event shall the manufacturer be liable for any sub sequential or special damages. Any misuse, improper installation or tampering shall VOID this warranty.

Product that is malfunctioning within the 1-year warranty period for scale line and 1-year warranty period for OEM products may be returned to manufacturer for Warranty Evaluation at the customers' expense. Manufacturer reserves the right to repair OR replace the components free of charge as may qualify under this warranty.

REMINDER!! WARRANTY DOES NOT COVER USER DAMAGE AND ABUSE. In addition to a listing of the repairs covered under warranty, if any, the customer will be billed accordingly for all parts and labor associated with any NON-WARRANTY repairs made to the product.

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OWNERS MANUAL

GENIE Series

PRECISION SCALE





1 About Genie Series Precision Balance

We would like to thank you for choosing us as your preferred choice for your weighing requirements.

The GENIE series weighing scale is an accurate, fast and versatile series of precision scales, loaded with time saving features and ease of customer use.

The scale is equipped with a 0.56" LED display to show weight for the user, and an option of remote display for the customer

There are different models in this series, with capacities ranging from 50g up to 2 kg and with least count from 1mg up to 20mg.

They all have stainless steel weighing platforms on an special grade ABS pan assembly. The loadcell is mounted on a special mounting providing precise centering of load and overload protection of up to 150% FS load capacity.

The soft touch keypad buttons are ideally sized, color coded, and bear symbolic tags for easy recalling scale functions. The displays are large easy to read LED type displays for easy view in different lighting conditions.

The scale is loaded with features like, automatic zero tracking, overload alarm, low battery protection, "SMART" weighing mode to filter stable results, full capacity tare, multiple units of measure, piece counting and price computing function to calculate gold rate with a press of a button.

The scales feature auto zero tracking to automatically compensate for small fluctuations in zero such as a build up of material on the platform.

ERROR CODES

ERROR – DISPLAY	Error	Solution
	Zero not in range	Remove weight from pan and restart the machine. If the problem persists, the machine may have been overloaded.
88888	Weight not enough for the selected setting	Keep weight or Add more weight on pan for correct results.
	LOW Battery. Machine displays message and turns off	Battery is low. Connect scale to power so that the battery can be charged.

8 TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	REMEDY	
Scale will not power on	If running on batteries, the battery may have fully discharged. AC Power cord not connected.	Connect scale to power source. Recharge battery	
Battery does not give enough backup	The battery is defective. The battery may have past its useful life. (Generally 6months – 1 year)	Change the battery.	
Weight reading on scale does not stabilize	External Rubbing / Friction A scale cannot measure accurately if an object is rubbing or pressing against the scale platform. Mobile interference, Vibration or wind could be other possible reasons	Move the scale away from mobile signal, breeze or vibration areas.	
Scale does not show weight accurately	Improper calibration	Calibrate the scale again to and check for the problem again.	
External calibration is not stored after switch on / off the machine	This happens when the Internal to External calibration variance larger than 2%. The cause could be that the user is not using correct weight.	Use correct weights to calibrate. If the problem persists, calibrate the scale using internal calibration routine.	

7.3 INTERNAL SERVICE CALIBRATION

Internal calibration also referred as service calibration requires opening the machine and changing the jumpers. It is advisable to do this step only if you have required assistance or the service personnel assisting you to do this.

STEP	PROCEDURE	DISPLAY
1	Open the 4 screws from the bottom of the machine and 1 from the ABS pan top and change the calibration jumper marked CAL. Now place back the cover, ABS pan and the SS pan. Make sure there is nothing kept on the weighing pan. At this moment do not put back the screws, simply place the cover on the machine.	
2	To start calibration switch on the scale and the countdown will begin, wait for few seconds until the display shows "CAL"	
3	Make sure there is no weight on the pan. Press Zero / Enter key and the display shows "CAL3PT" this is 3 point calibration, you can change this setting to 1 point calibration by pressing the Mode button and the display will Show "CAL1PT".	
4	Assuming you selected the 3 point calibration, Press the Zero/Enter button once and the display shows "0.00" for 2 seconds and then the display will show "200.00" blinking now place the 200g of weight on the pan and the display will stop blinking and after 4 seconds display will show "400.00" blinking with weight still on the pan put another 200g of weight to make the total weight 400g, now again the display will stop blinking and after 4 seconds display will show "600.00" blinking, with weight still on the pan place another 200g to make a total of 600g and the display will stop blinking. Now the display will show "J-OFF", lift all the weight from the pan and change the calibration jumper, place both the pans and tighten all the screws and press the Zero/Enter button once. Check calibration to ensure the scale is reading correct.	

2 TECHNICAL DATA

Measurement Parameters

High Precision Balances				
Measurement Data	JAX-50G1	JAX-100G1	JAX-200G2	JAX-300G5
Capacity	50g	100g	200g	300g
Readout / Interval	1mg	1mg	2mg	5mg
Tare range subtractive	50g	100g	200g	300g
Repeatability	±1d	±1d	±1d	±1d
Display Resolution	1:50000	1:100000	1:100000	1:60000
Precision GOLD Balances				
Measurement Data	JAX-300G10	JAX-600G10	JAX-1000G10	JAX-1000G10
Capacity	300g	600g	1000g	1000g
Readout / Interval	10mg	10mg	10mg	10mg
Tare range subtractive	300g	600g	1000g	1000g
Repeatability	±1d	±1d	±1d	±1d
Display Resolution	1:30000	1:60000	1:100000	1:120000
All In One				
Measurement Data	JAX-200G100	JAX-300G100	JAX-600G100	JAX-1200G100
Capacity	200g	300g	600g	1200g
Readout / Interval	100mg	100mg	100mg	100mg
Tare range subtractive	200g	300g	600g	1200g
Repeatability	±1d	±1d	±1d	±1d
Display Resolution	1:2000	1:3000	1:6000	1:12000

Other Parameters

Application Modes	Weighing, Counting,, Price / User Calculation	
Product Features	Auto Sleep, 100% Tare Range, Piece Counting, Glow Control, Direct Printer Output	
Keyboard	6 membrane keys (On/off, Counting, F, Mode, Tare and Zero)	
Display Indicators	Stability, Zero Position, Tare, Charging Status, Percentage mode, function active,	
Weighing Units	g, carat	
Calibration	Digital with external weight.	
Weight	4kg Approx	
Pan Size	120mm dia	
Front Display Type	0.56" Bright red LED display	
Remote Display	Optional, Available with 0.56" LED Display	
Communication	Optional RS232C for PC communication	
Stabilization	2 seconds	
Power	9V AC Adaptor / built in battery for backup to 50hrs. / 70 hrs with sleep mode active	
Operating Temp.	50° to 98° F / 10° to 35° C	
Dimensions	164.5 x 164.5 x 82.5 (w x d x h)	

^{*} all in one models only, ** specific to country restrictions.

3 INSTALLATION

3.1 Unpacking

Unpack and verify that the following components have been included:

- a) GENIE Precision Scale
- b) Instruction Manual
- c) AC Adapter
- d) Draft Shield with cover mounted on GENIE scale

e) SS Pan on top.

Save the packaging material. This packaging ensures the best possible protection for the storage or transport of the product.

3.2 Placing your scale

Before you install the scale, identify the best location for the equipment. The proper environment enhances its operation and longevity. Keep in mind the following factors, which might have a negative influence on the scale's operation:

- a) Vibration: Vibration diminishes the scale's ability to measure accurately. Electrical machinery such as conveyors and drill presses can cause inaccurate and non-repeatable readings. The scale may also read inaccurately if it is not leveled properly. The scale incorporates a SMART weighing mode where the scale can reject readings with vibration up to some extent.
- b) **Drafts / Air currents**: Moving air can cause the scale to read wind movement as an additional force and cause inconsistency in the weighing results.
- c) **External Rubbing / Friction:** A scale cannot measure accurately if an object is rubbing or pressing against the scale platform.

3.3 Leveling the scale

Level the scale by turning the adjustable feet. It is leveled correctly when the bubble indicator is in the center of the circle.

3.4 Power Source

The unit works on 220V AC Level the scale by turning the adjustable feet. It is leveled correctly when the bubble indicator is in the center of the circle.

The scale is fitted with a built in 6V 4Ah battery which provides backup of more than 45 – 60 hours depending on glow setting and sleep mode setting.

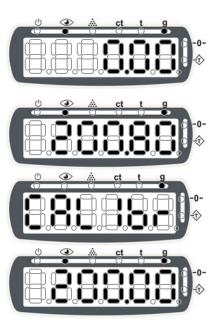
7 CALIBRATION

All SMART weighing scales come pre-calibrated from the factory. However the scale may require re-calibration. Temperature changes, geographic gravity variations, altitude changes and abuse are few reasons why a scale may need recalibration. The scales can be calibrated using a known external weight.

7.1 CALIBRATION CHECK: Put a known weight on the machine and make sure that the scale reads the correct weight on the display. In case of a variation in the display reading, it is recommended to calibrate the scale again with the procedure explained bellow in section 7.2

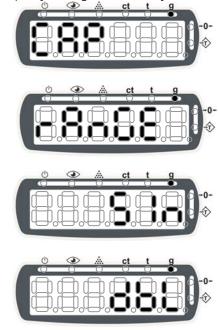
7.2 EXTERNAL USER CALIBRATION

To start the calibration switch on the scale and make sure there is no weight on the pan and the display shows "0.000". Now put a know weight on the pan for eg. 200g and the display will show "200.000" and the stable led will glow, If the display does not show the correct weight, press and hold the ZERO button for 5 seconds till the display will show "CALIBRATING". With the weight still on the pan, the display will now show the weight that is calibrated. Check calibration to ensure the scale is reading correct.



6.5 RANGE SELECTING: This function can enable or disable the dual range setting of your scale that is you can select the range of the scale as DOUBLE or SINGLE. For eg. If the scale's Capacity is 600g with Accuracy of

10mg and the range is selected as Double then the scale will show the Accuracy of 5mg upto half the original capacity i.e. 300g and above that it will show the Accuracy of 10mg upto 600mg. And if the range is selected as SINGLE then the scale will show its original Accuracy i.e.10mg from 0 to 600g. For selecting a particular range, Press and Hold the MODE button and switch on the scale display will show "CAP" press the Zero button 6 times and the display shows "RANGE" now press the Zero button once and select between single (SIN) or double (DBL)



range by pressing the Tare button and then press the Zero button once to accept the range selected.

6.6 **DUMMY ZERO SETTING:** Press and hold the Tare button and switch on the

scale display shows "DUMMY 0", Now press the Zero button once and the display shows the pre selected option i.e. Yes or No, Now you can select between



the YES or NO option by pressing the TARE button and press the Zero button to make your option accepted.

4 CONTROLS & FUNCTIONS

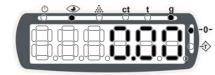
SYMBOL	NAME	FUNCTION	
0	Power Key	To power on and off the machine	
	Counting / Print Key	 Switch to piece counting mode Long Press – Initiate the Print Command Auto zero setting – Press, Hold the Counting button and switch on the machine. 	
PRICE	Function / Left Shift Key	 Call Price Calculation function. Switch to Scroll & sleep mode setting - Press, Hold the Price button and switch on the scale. Long Press – Enter price of current gold rate to use for price calculation 	
S	Mode / Up Shift Key	 Switch between weighing units Up Shift to change option of selected digit. Ex change 0 to 1 to 2 to 3 etc Switch to different settings Mode. Hold the M button and switch on the machine. 	
(-	Tare / Right Shift Key	 Tare the weight kept on the pan Right Left shift the selected digits during cal or other setup modes Manual Accumulation Dummy Zero Setting – Press, Hold the Tare button and switch on the machine. 	
-0-	Zero / Enter Key	 Zero the weight kept on the pan. Enter Key – Accept the selected setting and exit from setting mode. Press and Hold the Zero button after keeping a known weight calibrates the scale. 	

5 USER OPERATION

5.1 SWITCHING SCALE - ON / OFF

The scale is switched ON / OFF by pressing the Power BUTTON: This button is

used to switch on and switch off the scale. It is a real ON/OF which is implemented using the latest technology so that there is absolutely no power consumption when the scale is switched off.



USAGE:

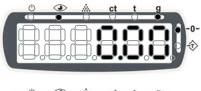
- a) SWITCH ON: Press the button once, the scale will switch on.
- b) If the scale is already switched on, press the button again, display will show "OFF" and the scale will be switched off.

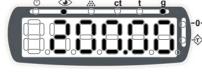
Note: Make sure the weighing pan is empty before turning on the scale.

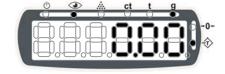
5.2 MANUAL TARE

5.2.1 <u>TARE BUTTON</u>: This button is used for taring a weight to display 0.00. A Tare value is indicated by the "t" LED on the panel.

Place a container on the weighing pan (say 200g), then press the TARE button. The weight is tared and the machine will display zero and the tare LED will be ON. To recall the tared weight, simply press the TARE button again. To TARE the value, again press the TARE button.





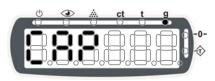


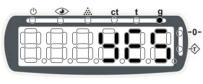
5.2.2 <u>RIGHT ARROW KEY</u>: This is used to shift selected digit on right side while entering settable values or calibration weight or any other user parameter etc.

the auto sleep function. Now press the zero button and the display will show "YES" or "NO" you can toggle between both the options by pressing the "TARE" button after selecting one option press the "ZERO" button to accept the entry & exit this setting.

6.3 CAPACITY DISPLAY SETTING: When the scale is switched on the display shows the Capacity and Accuracy of your scale scrolling, you can change this setting through this function that the Capacity and Accuracy of your scale should be shown or not at the time of switching on the scale.

Press and Hold the "MODE" button and switch on the scale, display shows "CAP" now press the enter/zero button and the display shows "YES" now select between "YES" or "NO" option by pressing the TARE button and then press the zero button 7 times to accept it, if you select "YES" the capacity &





accuracy of the scale will be displayed if "NO" it will not be displayed.

6.4 UNIT MODE DISPLAY SETTING:

This function helps you to access the

two different weighing modes that is CARAT & TOLA. You can deactivate any 1 or both of the above mode in which you do no want to weigh and carry on



with gram mode only. Press and Hold the "MODE" button and switch on the scale display will show "CAP", now press ZERO button 2 times and the display shows "CARAT" press the Zero button once and select between "YES" or "NO" by pressing the TARE button and press the Zero button to accept it. Press the Zero button 3 times to accept it. By selecting "YES" the weight will be displayed in that particular mode which you have selected as yes by pressing the mode button while weighing and if selected as no the weight will not be displayed in that particular mode.

6 SCALE SETTINGS:

This menu allows you to do various setting related to scale like auto zero, scroll mode, dummy zero setting, dual range, auto sleep etc.

hold the COUNTING button and then switch on the scale. The display will show "Auto 0" (Valid Values are 0.0, 0.5, 1.0, 2.0 and 3.0d). This is the auto zero setting. Press there ZERO button You can now select the value using the TARE (T) button. 3.0d means 3 divisions Default setting of Auto-Zero mode is 3d.



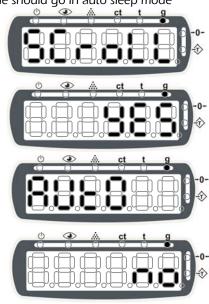
6.2 SCROLL & AUTO SLEEP SETTING

When the scale is switched on and it is idle, there are 2 types of modes which we can choose from i.e (a) The price value of gold as set explained in 5.4 should keep scrolling or (b) The scale should go in auto sleep mode

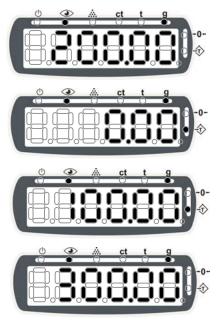
and only decimal point will be displayed. Press and hold the price button and then switch on the scale display shows "SCROLL" press the ZERO button and the display will show "Yes" or "No". You can press the TARE button, and user

can choose whether the scrolling function is required or not. If the price scrolling function is required user

should select "Yes", and if it is not required then the user should select "No" by pressing the ZERO button, and the display will show "AUTO" which is



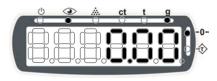
5.2.3 MANUAL ACCUMULATION: Keep a weight on the weighing pan(ex 200g). The display will show the weight. Now press TARE. The display will show 0.00 Now keep another weight (ex 100g), the display will show its weight. Now press TARE button. The display will show the total of the first value tared and the second weight tared. Press TARE button again, the display will show 0.00. Now keep another weight, the display will show the weight. Press TARE button, the display will show the



total of all the three weights (300.00g), press TARE button, the display will show 0.00

5.3 ZERO OPERATION →()+

Center of Zero is indicated by the annunciator. You can press the ZERO/ENTER key to set the zero point from which all other weighing and counting is



measured. The zero will function within 5% of the internal zero setting. The scale has an automatic auto-zeroing function to account for minor drifting or accumulation of material on the platform. This auto-zero range can be configured in the user setup. However you may need to press the ZERO/ENTER key to rezero the scale if small amounts of weight are shown when the platform is empty.

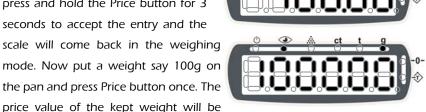
5.4 PRICE BUTTON

5.4.1

PRICE

Price Button: This button is used to enter and calculate the total price of the material being weighed according to the price entered. This button is also used to change the settings for Rate Scrolling and Sleep mode function

PRICE ENTRY: Press and hold the Price button for 3 seconds. The display will show the pre-entered value for eg."77213" with all the digits blinking. You can change the value by pressing the Price, Counting, Mode, Tare & Zero button one at a time. Assuming you entered the new value as "10000" Once the new price value is entered press and hold the Price button for 3 seconds to accept the entry and the scale will come back in the weighing



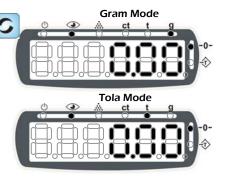
calculated that is "100000" assuming the above said rate of "10000" and will be displayed with blink 3 times

NOTE: The price value entered will be accepted as the price for 10g.

5.4.2 <u>LEFT ARROW KEY</u>: This is used while entering settable values or calibration weight etc.

5.5 MODE BUTTON / UP ARROW KEY: 5

This button is used to select the different units of weight available in the scale, that is to choose between the units of carat, tola, and gram.

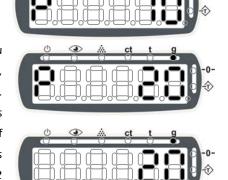


5.6 COUNTING BUTTON / PRINT BUTTON:



This button is used to put the scale in the counting mode and also for the printing the weight data on the printer using the RS232serial output of the scale (optional)

- 5.6.1 <u>COUNTING FUNCTION</u>: When the scale is displaying 0.00, press this button, the display will show "P 10"
 - which is the number of pieces. You can select between values of 10, 20, 50 and 100 using the mode button. Once the number of pieces is displayed, keep the same number of pieces on the weighing pan and press the ZERO button and hold it for 2 seconds. The weight of the pieces



- kept on the weighing pan is displayed as the number of pieces selected. Simply press the counting button once, if the user wants to exit the counting function to come in to the weighing mode.
- 5.6.2 <u>PRINT FUNCTION</u>: When a certain weight value or counting value or percentage value is being displayed, keep this button pressed for three seconds. The display will now show "PRINT". Press ZERO button, the display will show "DONE" and go back to the working mode.