

SMART

HAX - SERIES

Hanging Weighing Scale

About the HAX Series Hanging Scale

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

The HAX SERIES HANGING weighing scale is an accurate, fast and versatile series of balance loaded with time saving features and ease of customer use. It is perhaps the most economical commercial grade scale available in the market.

The scale has two 0.56" LED displays to show weight, one for the user and the other for the customer on the back side

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, Weight Hold, Accumulation, Pre Tare, Sleep Mode, Check Weighing, Brightness Increasing, Dummy Zero.



www.weighing.in

1 TECHNICAL DATA

High Precision Balances		
HANGING Balances		
Measurement Data	HAX-HG-10K5	HAX-HG-200K50
Capacity	10kg	200kg
Readout / Interval	5g	50g
Tare range subtractive	10kg	200kg
Repeatability	±1d	±1d
Display Resolution	1:30000	1:60000

Other Parameters

Application Modes	Weighing & Weight Accumulation
Product Features	Auto Sleep, 100% Tare Range, Weight Hold, dummy zero
Keyboard	4 membrane keys
Weighing Units	Kilograms
Calibration	Digital with external weight.
Weight	1.5kg Approx
Front Display Type	0.56" Bright red LED display
Remote Display	Optional, Available with 0.56" LED Display
Communication	NONE
Stabilization	2 seconds
Power	6V AC Adaptor / built in battery for backup to 30hrs.
Operating Temp.	50° to 98° F / 10° to 35° C

** Specific to country restrictions.

2 INSTALLATION

2.1 Unpacking

Unpack and verify that the following components have been included:

- Hax Series Hanging Scale
- Instruction Manual
- AC Adapter

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

2.2 Hanging 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:

- 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.
- Drafts / Air currents:** Moving air can cause the scale to read wind movement as an additional force and cause inconsistency in the weighing results.
- External Rubbing / Friction:** A scale cannot measure accurately if an object is rubbing or pressing against the scale hook.





2.3 Power Source

The unit works through 6V AC Adaptor. The scale is fitted with a built in 6V 4Ah battery which provides backup of more than 30 ~ 45 hours depending on glow setting and sleep mode setting.

2.4 Calibration Check

Hang 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 in section 7.1 later in the manual.

3 CONTROLS & FUNCTIONS

SYMBOL	NAME	FUNCTION
Located on back side of scale	Power Switch	<ul style="list-style-type: none"> To power on and off the machine
	HOLD	<ul style="list-style-type: none"> Right shift the selected digit during cal or other setup modes Holds the weight on the display
	M+	<ul style="list-style-type: none"> Manual Accumulation, Add weight to memory Long press clears the Accumulated memory Recall Accumulated weight Increment digit by 1 of selected digit. Ex change 0 to 1 to 2 to 3...9
	MODE	<ul style="list-style-type: none"> Changes to different options available in the setting mode Press and switch on the scale, displays the internal counts
	TARE/ZERO	<ul style="list-style-type: none"> Tare / Zero the weight hanging on the hook Zero the weight hanging on the hook. Enter Key – Accept the selected setting and exit from setting mode. External Calibration of Scale

4 USER OPERATION

4.1 SWITCHING SCALE - ON / OFF The scale is switched ON / OFF by using the Power switch located on the back side of the scale.

Note: Make sure there is no weight hanged before turning on the scale.

4.2 TARE / ZERO : The machine has a common Tare/Zero button. **TARE / ZERO BUTTON:** This button is used for taring a weight to display 0.00. Hang a Bowl on the hook (say 200g), then press the TARE button. The weight is zeroed and the machine will display zero.

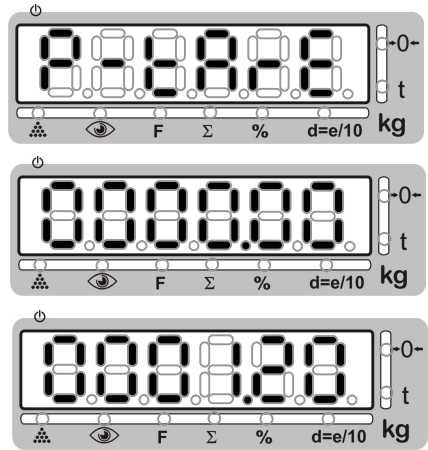
4.3 ACCUMULATION: Hang a weight on the Hook (ex 200g). The display will show the weight. Now press M+. The display will show "n ..." total no. of items weighed and then the total weight. Now hang another weight (ex 300g), the display will show its weight, now press the M+ button, the display will show the no. of items and the total weight. To recall the accumulated weight press the M+ button.

4.4 HOLD FUNCTION: This function enables you to hold a particular weight that is being displayed on the display of the scale so that the user can see the accurate stable weight until the hanged weight is lifted back from the hook. To hold the weight just hang some weight to the scale and press the " M+ " button and you will notice the displayed weight has been hold with the hold led blinking, now remove the hanged weight and the scale will automatically return to the weighing mode.

4.5 MODE This button is used to select the different values available in the scale settings mode. This button is also used to display the internal counts. Press and hold the button and switch on the scale until display shows the internal counts.

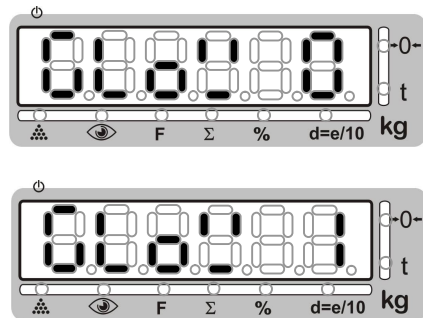
5 SCALE SETTINGS

5.1 PRE – TARE: With an empty hook Press the Hold & M+ button together - "P-tArE" will flash on the display. Now press the Tare/Zero button once and all the zeros will be displayed. Enter a value (ex.-1.200g), using M+ & Hold keys. Exit the setup menu by pressing the Zero/Enter key until the scale comes in weighing mode. The Pre-set Tare will be displayed as a negative value (no weight on the hook).

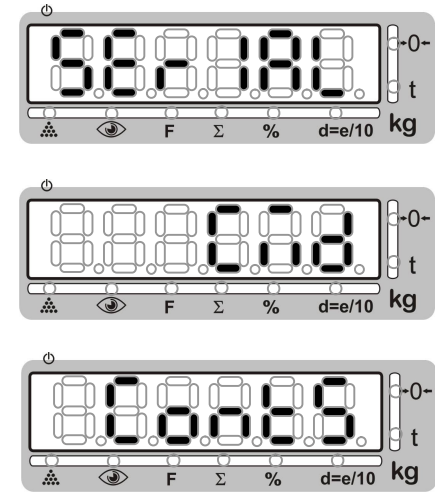


Note: To clear the Pre-set Tare value, press TARE with the hook empty it will remove it temporarily and to remove the Pre Tare value permanently from the memory you have to again go in the settings and make the display "000.00" using "M+" & "hold" keys.

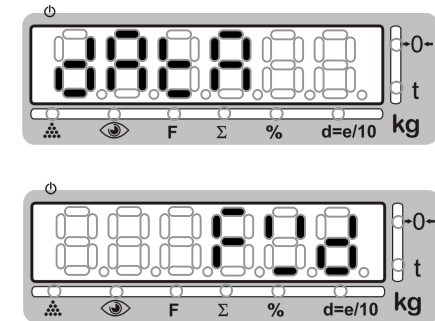
5.2 LED GLOW: The display GLOW strength can be increased or decreased depending upon the user requirement. Increasing the GLOW of the display will effect the Battery back up time, and the battery life. If the user wants to increase the GLOW of the display, it can be done as follows. When the indicator is in the weighing mode, While pressing the Hold button, press the M+ button. The display will show "P-TARE" Now press the Tare/Zero button two times so that the display shows "GLOW 0". 0 means the GLOW mode is currently set to Low. Now press the MODE button, and you will notice the GLOW of the display is increased. If the user wants to keep this setting, simply press the Tare/Zero button, until the display comes back to the weighing mode.



5.3 SERIAL: When the scale is in the weighing mode, while pressing the "HOLD" button, press the "M+" button. The display will show "P-TARE" Now press the Tare/Zero button three times so that the display shows "SERIAL" Now press the Tare/Zero button again and display will show "CMD" which means command mode you can select it to the continuous mode by pressing "M" button display will show "CONTS" and then press the Tare/Zero button, until the display comes back to the weighing mode.

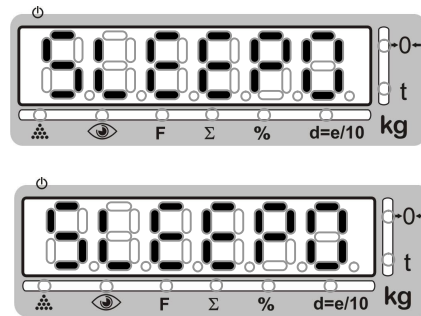


5.4 DATA: When the scale is in the weighing mode, while pressing the "HOLD" button, press the "M+" button. The display will show "P-TARE". Now press the Tare/Zero button five times so that the display shows 'data' Now press the Tare/Zero button again and the display will show "FWD" which means the data is being send in the forward mode, you can select it to the reverse mode by pressing "MODE" button display will show "REV" and then press the Tare/Zero button, until the display comes back to the weighing mode.

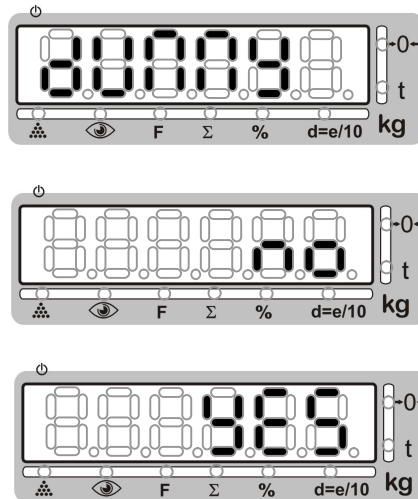


5.5 SLEEP MODE: The scale has a power saving mode called the SLEEP MODE. Whenever the scale is switched on, the SLEEP MODE is by default set to ON condition. In this mode, if the scale is idle for two minutes, that is there is no weighing being done, the display will simply show the decimal point of the right most digit on the display. Whenever any weight is hanged, the scale will automatically come out of the SLEEP MODE and start displaying the weight. It is

important to know that SLEEP mode increases the battery back-up time by double. The Normal backup time when the sleep mode is switched off is 25 Hours, and with the SLEEP mode switched on, the battery back-up time increases to more than 40 Hrs. If the USER wants to **switch off** the SLEEP MODE for some special usage or function it can be done as follows: When the scale is in the weighing mode, while Pressing the "HOLD" button press the "M+" button. The display will show "P-TARE" Now press the Tare/Zero button seven times so that the display shows "SLEEP1". 1 means the sleep mode is currently switched On. If the user wants to switch the sleep mode Off, press the MODE button once. The display will now show "SLEEPO". Press the Tare/Zero button till scale comes to the weighing mode. Now the Sleep mode has been switched off.

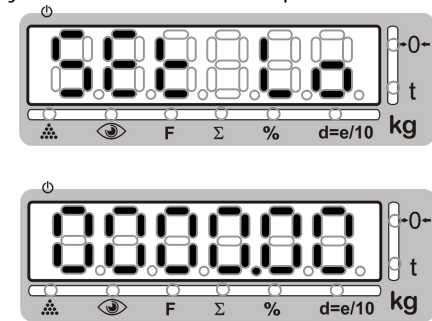


5.6 DUMMY ZERO: This feature enables you to get an extra zero on the rightmost digit of the display that is the dummy zero actually which is only displayed and does not work. If the user want to add a dummy zero for some special usage or function it can be done as follows: When the scale is in then weighing mode, While pressing the "Hold" button press the "M+" button and the display will show "P-Tare" now press the Tare/Zero button eight times so that the display shows "dummy" now press the Tare/Zero button once again and the display will show "no" now the user can select the "yes" option for getting the dummy zero by pressing the Mode button once after selecting the desired value press the Tare/Zero button, until the display comes back to the weighing mode.

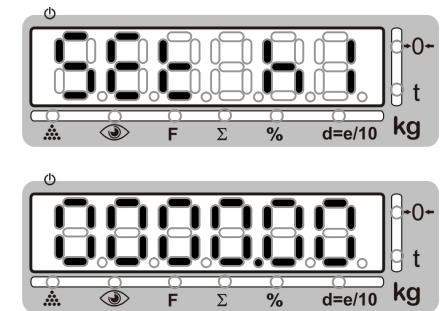


5.7 CHECK WEIGHING: This function

SET LOW: When scale is in the weighing mode with no weight on the hook, while pressing the "Hold" button press the "M+" button. The display will show "P-TARE" Now press Tare/Zero button ten times so that the display shows "SET LO" Now press the Tare/Zero button again and the display will show "0000.00", with the rightmost digit blinking, now you can enter the value which you want to set as low value using "HOLD" key to change the value & "M+" key to shift the digit to right. Now after entering the value, press the Tare/Zero button till scale comes to the weighing mode. A low value has been set.



SET HIGH: - When scale is in the weighing mode with no weight on the hook, while pressing the "HOLD" button, press the "M+" button. The display will show "P-TARE" Now press the Tare/Zero button twelve times so that the display shows "SET HI" Now press the Tare/Zero button once again and the display will show "0000.00", with the rightmost digit blinking, now you can enter the value which you want to set as high value using "HOLD" to change the value and "M+" key to shift the digit to right. Now after entering the value, press the Tare/Zero button till scale comes to the weighing mode. A high value has been set.



6 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.

6.1 INTERNAL SERVICE CALIBRATION

STEP	PROCEDURE	DISPLAY
1	Switch off the scale. Press & hold the "M+, Hold & Tare/Zero (all three together) buttons and switch on the scale. You will see "d 01" on the display. Now you can select the "d" value of the scale by pressing the "M+" button to 01, 02, or 05 and press the tare/zero button.	
2	You will now see "0 0." on the scale. Now you can set the decimal point according to your scale capacity by pressing the Hold button to shift the decimal to right and press the Tare/Zero button once after setting the decimal point.	
3	You will now see "CAP" on the scale. Press Tare/Zero button and the display will show the pre entered capacity value of the scale, you can change it by using "M+" & "Hold" keys after setting the new capacity or on the previous capacity only press the Tare/Zero button once.	

4	You will now see some "noload" on the display momentarily and then the display will show some internal counts.	
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5	Press Tare/Zero button and you will see "LOAD" on the display momentarily and then the display will show some internal counts	
6	Now hang a known weight to the hook of the scale. For eg.:10kg and press the Tare/Zero button once and all the zeros will be displayed with the rightmost zero digit blinking	
7	Now enter the value of hanged weight using "M+" key to up/change the value and "Hold" key to shift the digit to right. For eg. You have to enter 10kg then press the "M+" key once, 1 will be displayed now press the "Hold" key till the display reads ten kg "10.00"	
8	Press the Tare/Zero key once and the display will show "END" now press the Tare/Zero button once more and the display will show the weight hanged. Check the calibration	

6.2 EXTERNAL USER CALIBRATION (Refer Service Manual)

1	Press and hold the Tare/Zero button while switching on the scale. You will see "CAL" on the display.	
2	Press the Tare/Zero button once, you will see "noload" on the display momentarily and then the display will show some internal counts.	
3	Press the Tare/Zero button once, you will see "load" on the display momentarily and then the display will show some internal counts	
4	Now hang a known weight on the hook of the scale say 10 kg and press the Tare/Zero button and the display will show all zeros with the right most zero digit blinking, now enter the value of the hanged weight using key "M+" to up/change the value and "Hold" key to shift the blinking digit to right	
5	Press the Tare/Zero button and the display will show "END" now press the Tare/Zero button once more and the display will show the hanged weight. Check calibration.	

7 ERROR CODES

ERROR – DISPLAY	Error	Solution
	<ul style="list-style-type: none"> Zero not in range 	Remove weight from pan and restart the machine. If the problem persists, the machine may have been overloaded.
	<ul style="list-style-type: none"> Weight not enough for the selected setting 	Keep weight or Add more weight on pan for correct results.
	<ul style="list-style-type: none"> Internal / External calibration variance larger than 2% 	You are trying to calibrate the scale with a incorrect weight.
	<ul style="list-style-type: none"> 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.

WARRANTY

Customer Name : _____

Phone: _____ Mobile: _____

Date of Purchase : _____ Invoice / DC No: _____

Model : _____ Sl.No.: _____

Dealers / Agent Name : _____

SMART warrants all products shipped from New Delhi, India against defects in MATERIAL and WORKMANSHIP for a period of one (1) year for SMART standard line. 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 SMART staff or factory authorized personnel. SMART's obligation is limited to replacement of parts that have been so returned and are disclosed to SMART 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 SMART 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 SMART for Warranty Evaluation at the customers' expense. SMART 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.