



Medical Scale with Handrail MODEL 244293



USER MANUAL

Please read entire manual carefully prior to assembly and operation, for additional questions or concerns, contact Global Industrial Customer Service at 1-800-645-2986 or visit www.globalindustrial.com. Keep this manual for future use.

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1. INTRODUCTION

General Information

- The 244293 scale is a Digital Handrail Scale with Body Mass Index (BMI) readout.
- It is designed two handles and two wheels, offering the flexibility to move around.
- It is an accurate electronic device with advanced design and stable performance. Do not operate near cell phones, radios, computers or other electronic devices that emit radio frequencies that may cause unstable readings.
- It is designed to measure the weight of a person and compute the BMI index once the known height of a person is entered via the Indicator

Specifications

Model	244293
Maximum capacity	660 lb / 300kg
Minimum weight	4 lb / 2 kg
Scale division	0.2 lb /0.1 kg
Weighing units	kg, lb
Display	6 digits 1" (25mm) high, 7 segments LCD display with backlight
Interface	RS232, USB
Platform size	520mm x 520mm 20.47" x 20.47"
Overall dimension (when adjustable feet is adjusted to the lowest range)	520mm x 520mm x 1200 mm 20.47" x 20.47" x 47.24"
Environment for Use	Temperature: 5°C-40°C (41°F - 104 °F); Humidity: <85% RH
Power	Batteries: 4 x "AA" size cells (not included) AC Adapter: 9Vdc/600mA, with central positive (included) 
Feet	4 x fixed bolt design, adjustable height

2. Unpacking and Setup

2.1 Contents

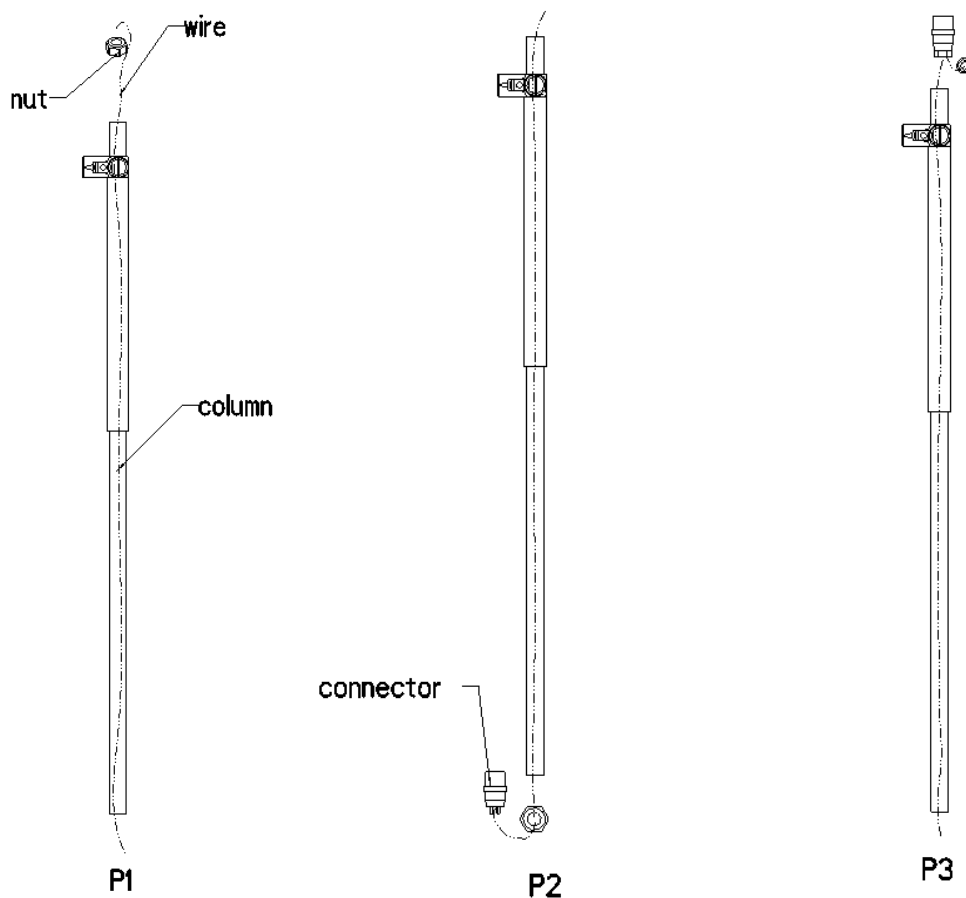
- 1x Scale base
- 1x Indicator and bracket assembly
- 1x Adapter
- 1x Hardware set (tools and M8 nut)
- 1x Operation manual
- 1x Handrail set
- 1x RS232 cable
- 1x USB cable

2.2 Unpacking and Installation Procedures

Take all scale parts out of the carton and put them on a flat and hard surface. Follow below procedures to fulfill the installation.

Install the scale

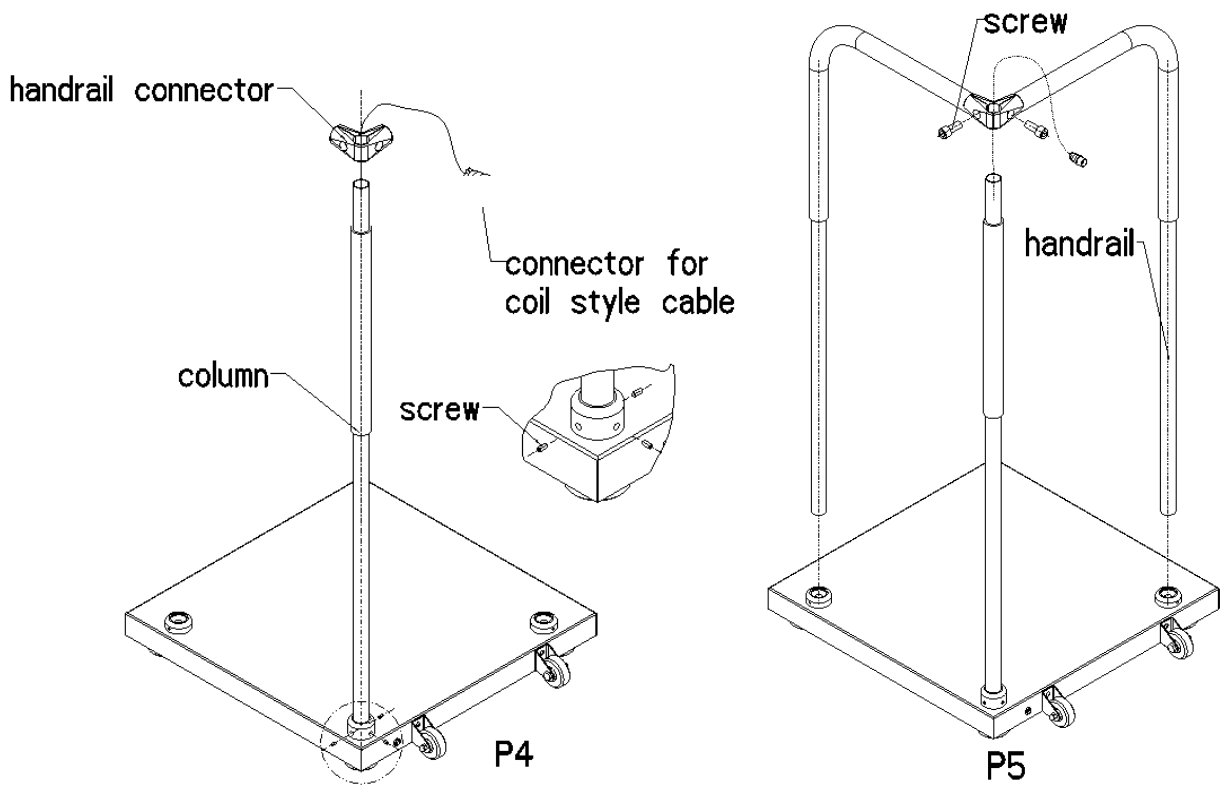
1. Get the wire through nut and column.(P1)
2. Fix the connector on the side of the leading wire(P2)
3. Pull the other end of the leading wire and have the connector out, wiring is complete.(P3)



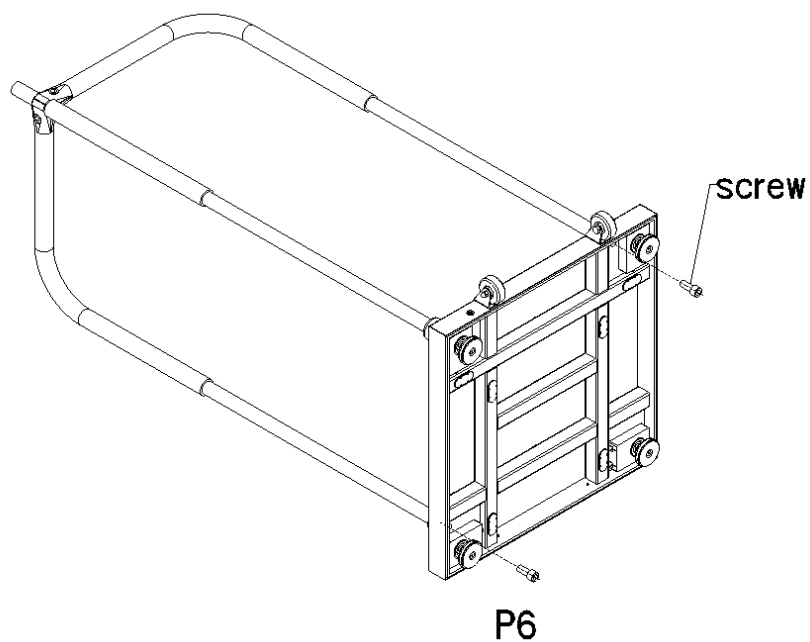
4. Attach the wire to the load cell cable. Pull the load cell cable through the column with the

lead wire (the lead wire is pre strung inside the column). Insert the column into the socket on platform and attach using provides screws.(P4)

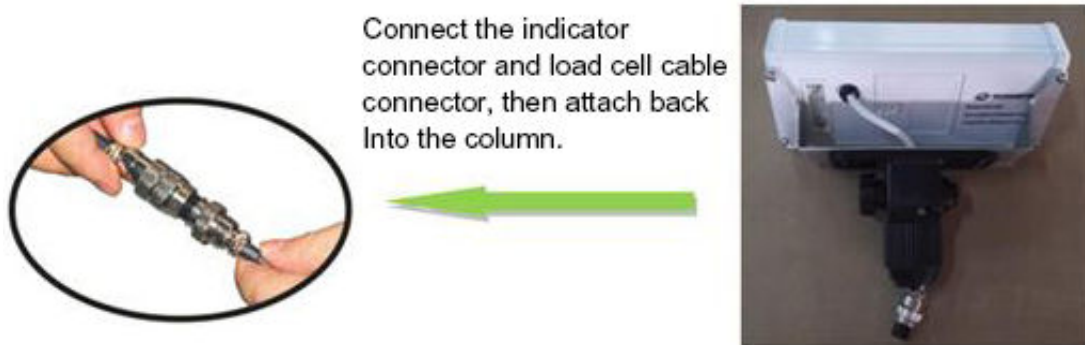
5. Insert the handrail connector onto the handrails, insert the handrails into the socket on platform. Have the three poles vertical with each other, then attach the handrails connector by using provided screws.(P5)



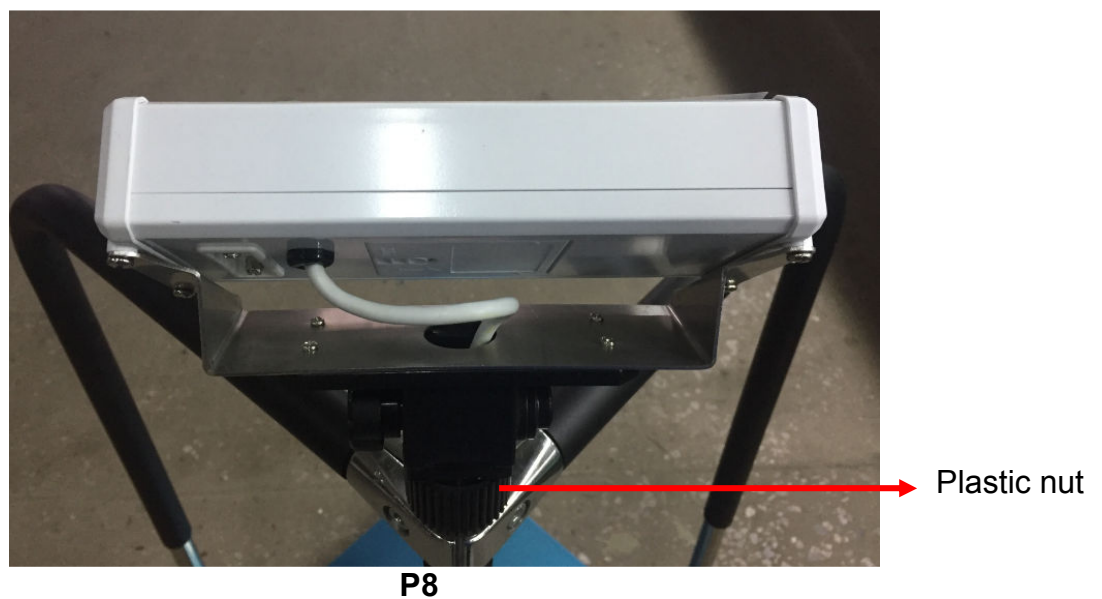
6. Carefully place the scale on its side, and firmly attach the handrails to the base using 2 large cap screws.(P6)



7. Follow below procedure to connect the connectors from indicator and base.



8. Insert the indicator assembly into the column, attach it by rotating the plastic nut. (P8)

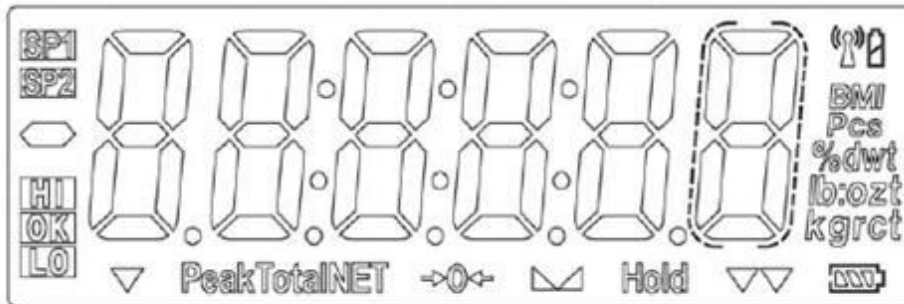



9. Adjust the level bubble until it is centered. Assembly is complete.



3. OVERVIEW OF CONTROLS AND FUNCTIONS

3.1 Display Descriptions







































Name	Description
	Status indicator for the current battery charge level. When this symbol appears the scale is in battery operation mode or will be charged.
→0←	The scale is within the zero level.
Standstill status indicator (14) ▲▲:	The scale is at a standstill, meaning the weight is stable and no movement is on the platform. This is a mandatory precondition for functions such as resetting, printing and taring . In case the LCD is not displayed is the scale not in the standstill mode.
"Hold"	Displayed when the hold function is activated
"lb"	Displayed when the weight mode is in pounds.
"kg"	Displayed when the weight mode is in kilograms..

3.2 Key Functions




Name	Description
HOLD	Activates the Hold-Function.
PRINT	Output data to serial communication port RS 232.
BMI	Enter, after the user steps on the scale, in order to proceed with the BMI mode.
UNIT	Switch button between primary kgs and secondary units Lbs.
TARE PRESET	Activates the tare function and the Preset Tare Function.
ZERO ON/OFF	Switch the scale on/off and zero function.
←	During key operation use this key to switch between the units.
→	During key operation use this key to switch between the units.
↓	During key operation use this key to switch between the numbers downwards.
↑	During key operation use this key to switch between the numbers upwards.
↵	Enter button to confirm the value.

3.3 Indicator Display Character Definitions

ASCII	LCD/LED Show	ASCII	LCD/LED Show	ASCII	LCD/LED Show
0		A		N	
1		B		O	
2		C		P	
3		D		Q	
4		E		R	
5		F		S	
6		G		T	
7		H		U	
8		I		V	
9		J		W	
		K		X	
		L		Y	
		M		Z	

4. OPERATIONS

4.1 Weighing

- Press the start key **ON/OFF/ZERO** to enter the normal operating mode of the scale without any weight on the platform. An automatic function test will be performed as well as the zero setting of the scale. When `0.0` appears, it means you are in the weighing mode. Additionally the display shows the symbol `→0←` to confirm stability of the zero setting.
- The scale is now ready to be used.
- A person can now mount the scale. Ensure that he/she is not moving.
- After the weight is displayed and the symbol  appears the utmost weight has been achieved.
- To turn off the scale press **ON/OFF/ZERO** for minimum 3 seconds.

4.2 How to change the unit of measure

- The scale offers the possibility to select between the weighing mode kg and lb.
- To change into another mode, press the **UNIT** key. Please check weighing mode after switching on to get proper result.

4.3 Tare function

The tare function allows ignoring a fixed weight (e.g. wheelchair) that will be deducted after each weighing procedure.

Proceed as follows:

- Press the **ON/OFF/ZERO** without any weight on the scale.
- Place the additional weight of the object(s), which needs to be ignored, on the scale and store the result by pressing the **TARE/PRESET** key.
- The display is being reset to zero. The scale is now in NET weighing mode which is also indicated on the display.
- Remove the objects from the platform. The ignored weight is being displayed with a minus.
- Place the Patient and the additional weight (e.g. in the wheelchair) on the scale.
- The scale determines the weight of the patient without the additional weight. You may now use the scale for as many weighing procedures and the stored value will always be deducted as long as the scale is not turned off.
- When there is weight on the platform, enter the **TARE/PRESET** button again to exit tare mode.
- The tare value is likewise erased by the scale until pressing the **TARE/PRESET** button when there is no weight on the platform or unit is switched off.

4.4 Weighing with preset tare values

- Press the **ON/OFF/ZERO** without any weight on the scale.
- Press and hold the **TARE/PRESET** key until the NET indicator flashes and “Pr.Tare” is displayed.
- Input the tare weight using the arrow keys (already known the weight of the wheelchair).
- After inputting the tare weight, press the **TARE/PRESET** key to confirm. The NET indicator will be lit on the display.

Note: Tare weight must be greater than zero and less than the scale’s maximum capacity.

- Put the patient and the additional weight (e.g. in the wheelchair) to be weighed onto the scale platform. The net weight will be displayed.
- To exit preset tare mode, remove all weight from the scale. The display will show a negative weight. Press the **TARE/PRESET** key to return the display to zero, eliminating the weight of the container.

Note: The indicator can only save one tare weight. Entering a new tare weight will automatically replace the old one.

4.5 HOLD function


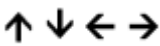
The Hold function is being used if you like to hold the results at the display after the weight/load has been removed from

the scale. Use this button to take care of the patient first and then note the weight.

- Press **HOLD/SETUP** key while scale is under load.
- “**HOLD**” is being displayed at the screen.
- The weight remains saved in the display after unloading the scale.
- For deactivation of the Hold function press the **HOLD/SETUP** key again.

4.6 BMI function

The Body Mass Index is the ratio between height and weight squared. The BMI is accepted world wide – also by WHO (World Health Organization) - helping to evaluate the state of nutrition and with that value also the state of health of a person. The result is a tolerance value.


- Start the scale by entering the **ON/OFF/ZERO** Button. The scale is automatically being set to zero.
- Step on the scale or help the patient to get into the wheelchair and on the platform.
- Wait until the weight is be displayed in a stable condition and  appears on the screen.
- Press the **BMI** key shortly.
- The scale starts automatically with the last input. Use the arrow buttons 

- to enter the height of the patient, and confirm the height with the enter button ↵
- The BMI will then be displayed on the indicator.
 - To correct the given height press the BMI button once again and the display will return to the height mode.
 - To get back into normal weighing mode and leave the BMI mode, press the **TARE** button.

4.7 Connecting additional devices

Connection of printer, PC or remote-display will be done with serial ports or USB port. For connection of additional devices contact Global Industrial for further instructions.

4.8 Print out a record

The scales must be at standstill. The standstill status symbol  must appear at the screen.

Press the **PRINT** key to send the data to the serial interface.

Note: Printing is not possible if the net weight is 0. The print function only produces one print-out. A repeated weighing process is required to print out another copy.

5. Troubleshooting

SYMPTOM	PROBABLE CAUSE	REMEDY
Ad-----	Load cell wires to indicator are incorrectly connected, or shorted, or opened; or ADC, load cell are damaged	Make sure wires are ok and correctly connected. Replace load cell or ADC chip, Service required.
Ad-----		
0-----	Weight reading exceeds Power On Zero limit.	Make sure scale platform is empty. Perform zero calibration.
0-----	Weight reading below Power On Zero limit.	Install platform on scale. Perform zero calibration.
-----	Weight reading exceeds Overload limit, or The weight value cannot be displayed in the current unit of measure because it exceeds 6 digits.	Reduce load on scale until weight value can be displayed. Use a more appropriate unit of measure.
-----	Weight reading below Under load limit.	Install platform on scale. Perform zero calibration
EEP.E1	CONFIG or CAL parameters are not correctly set	Contact your local dealer or supplier for a new set up
EEP.E2	USER parameter is not correctly set	Contact Global Industrial for a new set up
CAP.ER	Capacity parameters are not correct	Contact Global Industrial for a new set up
CAL.Er	Calibration error, input data or loaded weight is too small, too big, unstable, un-linear	Input correct data, load correct weight onto platform, Service required
Not turn on.	Power cord not plugged in or properly connected. Power outlet not supplying electricity. Battery discharged. Other failure.	Check power cord connections. Make sure power cord is plugged into the power outlet. Check power source. Replace batteries. Service required.
Cannot zero display or will not zero when turned on.	Load on scale exceeds allowable limits. Load on scale is not stable. Load cell damage.	Remove load on scale. Wait for load to become stable. Service required.
Battery symbol is empty/ Lo.bAt is shown	Batteries have low power	Replace with new batteries



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