



User Manual

Model: 430

Bench Scale

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1. General Information and Warnings

Routine maintenance

IMPORTANT: This equipment must be routinely checked for proper operation and calibration. Application and usage will determine the frequency of calibration required for safe operation

Sharp objects

Do not use any sharp objects such as screwdrivers or long fingernails to operate the keys.

Cleaning of scale

Do	DO Not
Wipe down the outside of product with a clean soft cloth, moistened with water and a small amount of mild detergent cleaning fluid	Do not attempt to clean the inside of the machine
Spray the cloth and wipe down scale.	Use harsh abrasives, solvents, scouring cleaners or alkaline cleaning solutions
	Spray any liquid directly on to the display windows

FCC declarations of compliance



United States


This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense

Canada

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada. Interference Regulations of the Canadian Department of Communications.

	 WARNING
	DISCONNECT ALL POWER TO THIS UNIT BEFORE INSTALLING, CLEANING, OR SERVICING. FAILURE TO DO SO COULD RESULT IN BODILY HARM OR DAMAGE THE UNIT.

 CAUTION
<ul style="list-style-type: none">• Permit only qualified persons to service the instrument• Before connecting or disconnecting any components, remove the power.• Failure to observe these precautions bodily harm or damage to or destruction of the equipment.

Safe Battery Disposal

Please be aware this product contains a lead acid battery which **MUST** be removed and disposed of safely prior to any disposal of the scale.

This battery can be easily accessed by removing the battery cover found on the underside of the scale.

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

2. Introduction

The Model 430 weighing scale has been designed to be a fast and very simple scale to operate both in its basic weighing or checkweigh modes of operation. This scale amplifies signals from its internal load cell and converts it in to an accurate digital weight reading using its large multi-colored LCD display.

- This makes it ideal for a wide range of general weighing and catering types of applications.
- Designed with large, easy-to-read 25 mm / 1" LCD digits and a three-color Under, Over Accept LED back light display.
- AC and Battery powered to provide up to 60 hours of continuous use (without backlight).

3. Installation

Unpacking

Carefully take the scale out of its package, make sure it's not damaged and all accessories are included.

- Remove the indicator from the carton.
- Remove the protective covering.
- Inspect the scale and terminal for damage.
- Make sure all components are included.

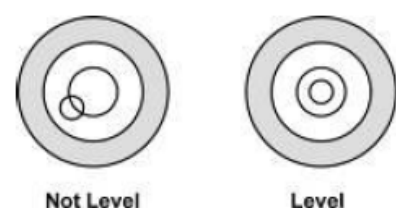
1. 430 Scale
2. Adaptor plus plug adaptors
3. Weight Platter

Levelling scale

Place the scale on a level, flat surface.

Verify the level bubble is centered inside the inner ring.

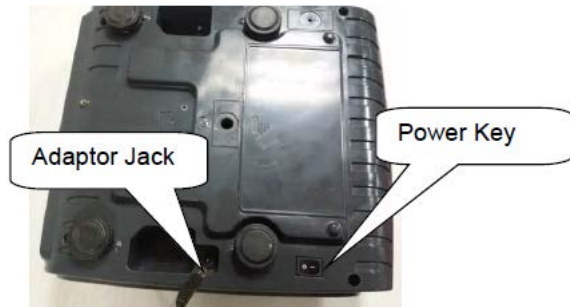
Level bubble is located at the front left corner of the display area.



If the bubble is not level, adjust the levelling feet until the level bubble is centered correctly.
Always check the level prior to using scale.

Charging Battery

Please Note: charge the battery before using the scale for the first time



To charge the battery, insert the supplied power adaptor into the power jack socket on the underside of the scale as shown.

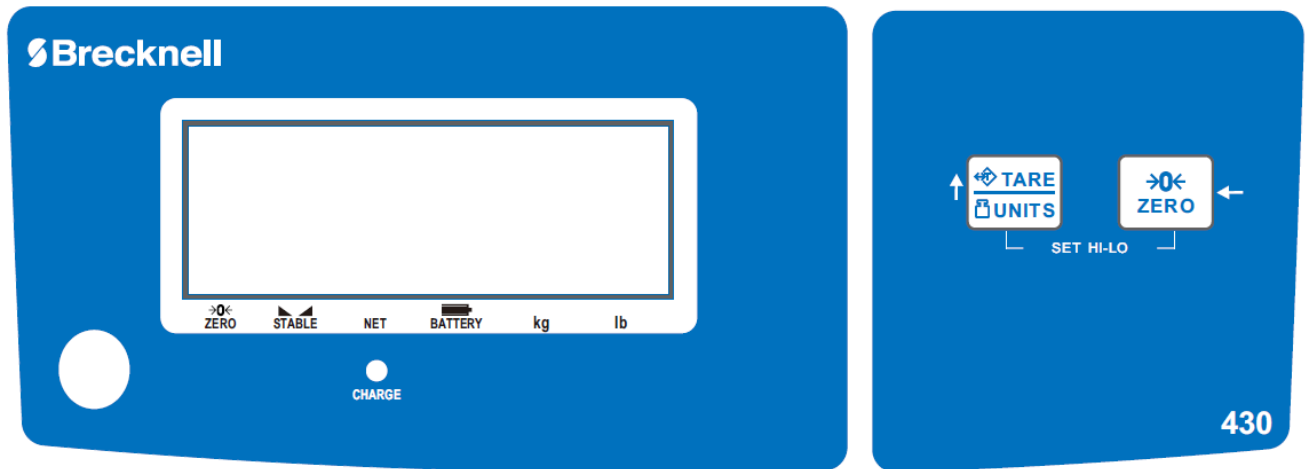
- The battery should be charged for at least 12 hours to fully charge the battery.
- When the scale is turned on, the battery charge LED on the front of the 430 scale will show the status of the battery.
 - If the LED is green, this indicates that the battery is fully charged.
 - If the LED is red, this indicates that the battery is low and needs to be recharged.
 - If the LED is orange, it indicates the battery is being charged.
- When the scale is plugged into the mains power, the internal battery will automatically start recharging until full. Please note, this scale can be recharged even if the scale is being used or when the scale is tuned off.
- Do not use any type of power adaptor other than the one supplied with the scale.
- Verify that the AC power socket outlet is properly protected.

Installation







- Place the scale on a flat, stable surface.
- Connect the adaptor pin into the indicator adaptor jack.
- Connect the power adaptor to your AC power socket.
- Pluggable equipment must be installed near an easily accessible socket outlet with a protective ground/ earth contact.
- Turn on the scale by using the On/Off key on the underside of the scale. If you need to turn off the scale, press the On/Off key again.
- The display will show the software version number and then start counting down from 9 to 0 before displaying in normal weighing mode.
- Scale is now ready to use.

4. Scale Operation keys




Weight Display



Display Annunciators

-  Scale at Zero
-  Display reading is stable
-  Indicates Net a weight
-  Indicates a Low Battery and the scale will need to be recharged
-
-  Current weight mode
-
-  Charging indication
 - Red: Needs charging
 - Orange: Charging
 - Green: Fully charged

Operation Keys

-  Zero key, Zeros off any weight shown on the display.
Also used to increase flashing digit number when in setup mode.
-  Used to tare off the displayed weight. Toggles between Gross and Net.
Also used to move the flashing digit to the left when in setup mode.
Long press will change units.
-  Press both to set up upper and lower limits.

5. Scale Operation

Initial Start-up

A warm-up time of 15 minutes is required to stabilize the measured values after switching on the scale.


This scale has been designed to be fast and very simple to operate both in its basic weighing and checkweigh modes of operation.

1. Turning the scale ON/OFF


Power switch is located underneath the right side of the scale next to On/Off label.

- a. Turn the scale ON; press the switch forward and hold. The scale will show the capacity and enter a self-test countdown mode before entering the normal weighing mode.
- b. Turn the scale OFF, press the switch forward once.

2. Zero


If the scale display is not showing Zero with nothing on the weight platter, Press the  key to zero off the weight reading, display should now down 0.000

3. Tare

The weight of any empty container can be tared off by pressing the  key when the empty container is placed on the scale. The display will now show 0.000 and the NET annunciator will be visible.

4. Removing a Tare

To remove a Tare from the scale's memory, remove all weight from the weight platter and

press the  key. The tare will now be cleared and the display will show 0.000 with the NET annunciator turned off.

5. Changing Unit from kg to lb

This scale can be used in either kg or lb units of measure, to change the unit of measure press


and hold  key for 3 seconds.

After 3 seconds the units will be changed and the relevant lb or kg annunciator will be shown on the display.

6. Backlight

The Model 430 Scale allows the operator to use the scale with the backlight set to Auto on or off. (Default is Auto On)

Turning off the back light will help to prolong the battery life of the scale.

- To turn off the backlight, press and hold the  key. The display will show *bL AU*
- Press the Tare key to change the backlight setting from **Auto** to **off**

Display	Description
<i>bL AU</i>	Backlight will be turned on, when start to use or when weight is not in zero.
<i>bL oF</i>	Backlight function will be turned off

Checkweighing Mode



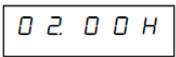



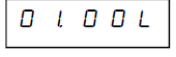
The Model 430 has been designed to give the operator fast and easy visual information to help identify when the object being weighed or checked is within the acceptable weight window. The Model 430 scale has an easy-to-set-up color changing backlight to represent when the object is within an accepted weight window.




The backlight will show Orange for under, Green when within the accept weigh window and Red for over.

Please note: This feature is on by default can easily be turned off if needed by changing configuration setting *F9 CL*.

Or you can set the scale to just work within the Accept window area by setting the High point at max scale capacity (30.000H) and low point is at zero (00.000L), resulting in the scale just working within the accept Green range area.

7. Set Up Checkweighing Limits


- When in Weighing Mode, press both keys together   to set up the high and low limits. Display will show  which represents the High limit of the accept window or the change point from the green accept to red over. In this case, it represents 2.000 kg or lb.
- To enter a new high limit, use the  key to adjust the flashing digit "0" to increase the number and use the  key to change digits to the left.
- Keep pressing the  key until  is displayed. This represents the Low limit of the accept window or the change point from the Orange underweight to Green accept. In this case, it represents 1.000 kg or lb.

- d. To enter a new low limit, use the  key to adjust the flashing digit “0” and use the  key to change digits to the left.
- e. Keep pressing the  key until the display shows *End* to accept changes. Scale will automatically go back to weight mode with Checkweighing limits enabled.


Note: Checkweighing is only available when the weight is more than 20d.

8. Setting Checkweighing Limits Buzzer

In checkweighing mode, the operator can set an internal buzzer to beep if the weight is in one of the following weight band areas: beep on accept or beep if weight is under or over the accept weight window.

Check mode  : Function turned off. No beep sound.

Check mode  : Beeps when the weight is within the accept window (Green backlight).

Check mode  : Beeps when weight is outside the accept window (Orange & Red backlight).


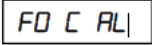




To set buzzer up, please refer to scale configuration settings *FB bEP*

6. Configuration Parameters

Please read this section carefully before making any changes as some of these parameters could prevent the scale from working correctly without being recalibrated.

To recalibrate scale, please make sure you have all the correct weights ready prior to starting.


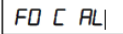







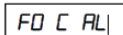
Entering the Configuration Menu

- Turn on the scale and Press  key during the start-up screen until display shows .
- To toggle through configuration parameters, press  key.
- To enter selected configuration parameter, press  key.
- To change a setting in any of the configuration parameters, use the  key to change and the  key to accept change. Scale will return to the main parameter settings shown below.
- To save all changes made to the scale, press the On/ Off button on the underside of scale to save.

Parameter settings

Menu	Description	
F0 CAL	KG	Calibration in kg mode
	Lb	Calibration in lb mode
F1 RES	3000	Set external resolution
	6000	
	15000	
	dUAL	
F2 CAP	1.5	Set Scale Capacity
	3	
	6	
	7	
	15	
	25	
	30	
F3 INP	Internal Counts	
F4 OFF	Set automatic turn off the scale	
	3 min	Scale will be auto off three minutes later
	5 min	Scale will be auto off five minutes later
	15 min	Scale will be auto off 15 minutes later
	OFF	Auto off function disable
F5 GRA		Set your local gravity value.
F6 SPD	S-SPD	Set AD speed
	F-SPD	
	n-SPD	
F7 Tn	PEArE	Multi-Tare operation enable
	oPEArE	Multi-Tare operation disable
F8 bEP	bEP 0	Select to turn off buzzer sound for Check weighing
	bEP 1	Buzzer will be beep, between the limits
	bEP 2	Buzzer will be beep, out of the limits
F9 CF	on	Turn on the check weighing function
	OFF	Turn off the check weighing function

7. Calibration

1. Turn on the scale and press the  key during the start-up screen until display shows  .
2. Press  to enter the calibration section.
3. Select the calibration unit of measure to be used (kg or lb).
 - a. If recalibrating in kg, continue with step 4.
 - b. If recalibrating in lb, press  and select lb and press  to accept.
Display will now show  .
4. Make sure nothing is on the weight platter and press  to accept the Zero point.
5. Display will show the current calibration weight required for recalibrating the scale. This weight should be higher than 1/3 full capacity. To change this calibration weight, use the  key to select the next calibration weight to be used (*can select from: 1.5, 3, 6, 7, 15, 30*).
6. With required calibration weight shown on the display, load the scale with the required test weight and wait for the stable indicator to be shown and then press  key.
7. The display should show "PASS" and then revert to setup mode.  .
8. With the On/OFF button on the bottom of the scale, turn scale off and back on to save setting.

If the display shows any error message, repeat the calibration again.

8. Model 430 Available Spare parts

Part number	Description
AWT25-502491	Power supply (input 100-240V 50/60Hz 0.25A output 12V 0.5A) positive center
	Replacement battery 6 V 3.2 Ah/ 20 HR lead acid battery (BT-6M3.2AC)
AWT20-509299	Replacement feet Kit (4 feet and lock nuts)

9. Error Messages\

Error Message	Description	Solution
-----	Maximum load exceeded	Unload or reduce weight
<i>Err 1</i>	Incorrect date	Enter the date by using format "yy;mm:dd"
<i>Err 2</i>	Incorrect time	Enter the time by using format "hh:mm:ss"
<i>Err 4</i>	Zero setting error	Zero setting range exceeded due to switching on.(4%max) Make sure platform empty.
<i>Err 5</i>	Key board error	Check the keys and connector.
<i>Err 6</i>	A/D value out of range	Make sure platform empty and check the pan is installed proper. Check the load cell connectors.
<i>Err 7</i>	Percentage Error	Please check input data, must be > 0.5d
<i>Err 8</i>	Calibration weight error	Check the test weights for calibration or linear calibration
<i>Err 9</i>	Unstable Reading	Check any air variation, vibration, RF noise and touching some where. Check the load cell and connectors.
<i>Err 10</i>	Wireless communication failure	Check wireless settings or change Com settings from the wireless
<i>Err 11</i>	Communication protocol error	Check communication settings
<i>Err 12</i>	Accumulation error	Max accumulation times 99 / 999 / weight 999999
<i>Err 13</i>	Lack of unit weight	Check unit weight entry data, must be >0.5d
<i>Err 14</i>	Lack of sample	Check counting samples entry, must be >20d
<i>Err 15</i>	Gravity error	Check the gravity settings. Gravity range must be 0.9xx ~ 1.0xx
<i>Err 16</i>	Paper error	Check the printer paper
<i>Err 17</i>	Tare out of range	Minus weight or overload.

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Operator Manual



<http://www.brecknellscales.com/docs.html>