

Mod: BSC/150-10

Production code: GFK 150

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1.0 SETTING UP AND TURNING ON THE SCALES

There is a pillar which must be attached to the base frame first using the 4 bolts supplied. The pillar is secured to the bracket using 2 sets of screws. Then place the platform in the base. Level the scale by adjusting the four feet. Attach the indicator module to the pillar by sliding it over the bracket with the flanges engaged in the groves on the base. Attach the cable from the base to the connector on the rear of the indicator. Attach the power cable to the indicator.

After completion of setting up, press the **[On/Off]** key on the rear of the indicator. The software revision number will be displayed followed by a self-test showing all digits before the zero is displayed along with the unit of weight that was selected last.

NOTE: The scale can be operated from the rechargeable battery. With a single load cell and backlight disabled the life is approximately 70 hours before needing to be recharged. The battery should be charged for 12 hours for full capacity.

2.0 OPERATION

2.1 ZEROING

You can press the **[Zero]** key at any time to set the zero point from which all other weighing and counting is measured. The scales have an automatic re-zeroing function to account for minor drifting or accumulation of material on a connected platform. However you may need to press **[Zero]** to re-zero the indicator if small amount of weight is still shown when the platform is empty.



2.2 TARING

To determine a weight of sample which is using a container, you need to tare the empty container. The scales supply two methods of tare: manual tare and preset tare.

Manual Tare

Zero the indicator by pressing **[Zero]**. The zero indicator will be on. Place a container on the pan.

Press **[Tare]** when the reading is stable. The weight that was displayed is stored as the tare value, leaving zero on the display. The stable and Net indicator will be on.



As a sample is added only the weight of the product will be shown. The indicator could be tared a second time if another type of product is added to the first one.



Press **[Tare]** or **[Zero]** to remove the tare value and display zero. The **Net** indicator will disappear.

Preset Tare

When the indicator or scale is at zero with no weight on the platform it is possible to enter a preset tare. First zeroing the scale, enter a value using the numeric keys. Press **[Tare]** to tare the indicator. The value that was entered is stored as the tare value and it is subtracted from the display, leaving a negative number on the display.

To change the weighing unit press the **[Unit]** key. The only alternative weighing unit is grams.

2.3 PARTS COUNTING

The scale can be used to count parts based on the average weight of a sample weighed. If a container is to be used, place this container on the platform before entering parts counting and press **[Tare]**. Press **[Cnt]** to enter the Parts Counting mode.

The display will show the last sample size used. For example, **"10 Pcs"**. To change the sample size, you can press **[CE]** to clear the last values and then enter the value 20 using the numeric keypad.



Place the right number of parts on the platform. Then press **[Cnt]** to determine an average piece weight. After the sample has been weighed the scale will count any other parts added by applying the average piece weight to the weight of the parts to be counted.



During parts counting the display can be changed to show the net weight, unit weight and number of parts by each time pressing the **[Func]** key.



To count a different sample quantity, press the **[Count]** key. And operate as above. To return to weighing, press **[Unit]** when **"XX pcs"** is displayed.

NOTE: If the parts are too light to measure accurately, the count may become faulty. It is suggested that the samples to be weighed should each weigh more than the resolution of the indicator.

2.4 PERCENT WEIGHING

The scale will use a mass on the platform as the 100% reference weight or input a reference weight using the keypad.

Steps:

If using a reference weight (or object) as your 100% reference, add the weight to the platform. Press **[Func]**. The first option is **"FUnC 1"**, press the **[Func]** key 3 more times to display **"FUnC 4"**

Press the **[Tare]** key. **"F4 Pct"** will be displayed. Press **[Tare]** again to enter percent weighing. The scale will set the sample mass on the platform as 100% reference weight.

NOTE: If there is no reference weight on the pan and percent weighing function is entered, pressing **[Tare]** again will return the indicator to normal weighing.

Remove the sample weight. Then any other weight placed on the platform will be displayed as a percentage of the original sample.

Users can also input the reference weight using the keypad. Make sure the platform is empty and when **"F4 PCT"** is displayed, enter the weight to be used for the 100% reference, then press **[Tare]** to accept the reference weight. The display will show **"0.00 %"**.

If the indicator shows **"x x . x x %"**, which is the last weight used as a reference, press **[CE]** to clear and use the numeric keypad to enter a new value. Press **[Tare]** to accept the new reference weight.

Press **[Unit]** to return to normal weighing.

NOTE: The weight entered must be greater than 50 scale divisions.

The display may jump by large numbers unexpectedly if small weights are used to set as 100% reference. The indicator checks if the weight is too small and will show **Error 7**.

2.5 ANIMAL (DYNAMIC) WEIGHING

Steps:

Press **[Func]**. The first option is **"FUnC 1"**, press the **[Func]** key 3 more times to display **"Func 4"**.

Press the **[Tare]** key. **"F4 Pct"** will be displayed. Press the **[Func]** key to advance to the second function, **"F4 Anl"**, Animal weighing. And Press **[Tare]** to enter.

To use the Animal Weighing function it is necessary to set the amount of filtering. More active animals will require a higher level of filtering to give a stable result. The display will show **"Filt x"** where x is a value from 1 to 5. To increment the value shown press the **[Func]** key then press the **[Tare]** key to accept it.

The display will flash **"Ani "** 2 times then show the current weight, 0.00. The scale is now ready to weigh. Place containers or blankets onto the platform and press the **[Tare]** key to zero the display. Place the animal to be weighed on the platform.

When a stable reading is found, the display will show and lock this value, The display will show the **"Hold"** symbol .Remove the animal, the display will hold the weight value.

Press the **[Unit]** key to unlock the display. The display will flash **"Ani"** twice, and be ready for the next animal.

Press **[zero]** key to return to normal weighing.

2.6 ACCUMULATED TOTAL

The indicator can be set to accumulate when a weight is added to the platform automatically or manually by pressing **[Print]**. See menu structure section. The accumulation function is available only during weighing. If at any time the weighing units are changed, the accumulated data will be lost.

Manual Accumulation

When the scale is set to manual accumulation, the weight displayed will be stored in the memory when the **[Print]** key is pressed and the weight is stable.

Steps :

Remove the weight and press **[Print]** when the display is at zero. The display will show **"ACC 1"** and then the weight in memory for 2 seconds before returning to normal. The weight can be output to a printer or PC using the RS-232 interface.



When the indicator is at zero, place a second weight on the platform. When stable, press **[Print]** to accumulate the weight. The display will show **"ACC 2"** for 2 seconds and then show the new total.



Continue until all weights have been added. This can continue for up to 99 entries until the capacity of display is exceeded.

To view the total in memory, press the **[Print]** key when the indicator is at zero. The display will show the total number of accumulation **"ACC xx"** and the total weight before returning to zero.

To print the total, press **[Print]** to recall and then immediately press **[Print]** the second time to print the results. To erase the memory, press **[Print]** to view the total and then immediately press **[CE]** to clear the memory.

Automatic Accumulation

When the indicator has been set to Automatic Accumulation the value will be stored in memory automatically.

Place a weight on the platform. The beeper will sound when the display is stable indicating the value is accepted. Remove the weight. The display will show **"ACC 1"** and then the total in the memory before it returns to zero. Adding a 2nd weight will repeat the process.

While the weight is on the platform, press the **[Print]** key to view the values- first the accumulation number **"ACC x"** and then the total will be shown.

3.0 RS-232 SPECIFICATION

The scale is supplied with a bi-directional RS-232 interface. The indicator when connected to a printer or computer outputs the weight with the selected weighing unit through the RS-232 interface.

Default Specifications:

RS-232 output of weighing data

ASCII code

9600 Baud (user selectable)

8 data bits

No Parity

Connector:

9 pin d-sub miniature socket

Pin 3 Output

Pin 2 Input

Pin 5 Signal Ground

4.0 CALIBRATION

The scale can be calibrated using kilogram weights or pound weights depending on the weighing unit selected at the time of calibration.

Steps:

To start the calibration, turn the scale off and switch on again and then press **[Tare]** during the self-test. Enter code number 0000 and press **[Tare]**. This will take you directly to the calibration section or you can get into the calibration section through the Indicator Settings ("FUnC 3"- see menu structure).

The display will show **"UnLoAd"**

Remove all weight from the platform and then press the **[Tare]** key when the display is stable. After the Zero point is set, the display will show **"ld xx"**. Place the suggested calibration mass on the platform. It is best to use a weight close to the full capacity of the indicator.

If the mass is different from the displayed value, enter the value of the mass in whole numbers. The kg or the lb symbol will be on to show the active unit. Press the **[Tare]** key when the stable indicator is on.

When complete, it will display **"PASS"** and then either display **"S8 CAL"** (if entered the calibration section through the Scale Settings) or return to normal weighing (if entered directly). Remove the calibration mass.

If an error message **"FAIL H"** or **"FAIL L"** is shown, re-check the calibration and repeat. If the error cannot be corrected contact your supplier.

5.0 SPECIFICATIONS

Model #	BSC /150-10	BSC/ 300-20
Maximum Capacity	150kg	300kg
Readability	10g	20g
Repeatability (Std Dev)	20g	40g
Linearity $\pm$	20g	40g
Units of Measure	Kilograms and grams	
Stabilization Time	2-3 Secs	
Operating Temperature	-10°C to +40°C / +14°F to +104°F	
Power Supply	12vDC 800mA	
Calibration	External	
Calibration Mass	User Selectable	
Display	Backlit Green display 18mm with capacity tracker	
Scale Housing	Welded steel painted base, stainless steel grade 304 Top pan, ABS indicator housing	
Pan Size	400mm x 500mm	
Net Weight	13.57kg	
Features	Weighing/Counting/ Percentage/Hold function/RS232	

6.0 ERROR MESSAGES

During the initial power-on testing or during operation, the indicator may show an error message. The meaning of the error messages is described below.

If an error message is shown, repeat the step that caused the message. If the error message is still shown then contact your dealer for support.

ERROR CODE	DESCRIPTION	POSSIBLE CAUSES
Err 1	Time input Error	Invalid time entry such as "268970" for the time format "H-m-S".
Err 2	Date input Error	34th day of a month is an invalid entry.
Err 4	Initial Zero is greater than allowed (4% of maximum capacity) when power is turned on or when the [Zero/Enter] key is pressed.	Weight on the platform when turning the indicator on. Excessive weight on the platform when zeroing the indicator. Platform is not installed. Improper calibration of the indicator. Damaged load cell. Damaged electronics.
Err 6	A/D count is not correct when turning the indicator on.	Load cell is damaged. Electronics is damaged.
Err 7	Percent input error	Percent function is entered with no reference mass on the platform.
FAIL H or FAIL L	Calibration error	Improper calibration (should be within +10% of the factory calibration). The old calibration data will be retained until the calibration process is complete.

7.0 MENU STRUCTURE

PARAMETER LAYOUT for WR-32X1-B SCALES Press the [**Func**] key to enter Functions mode

- [**Tare**] enter a parameter or accept the changes
- [**Func**] move to next parameter or option
- [**Zero**] return to previous parameter or return to weighing

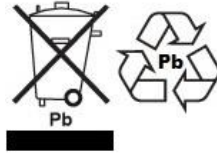
FUNC 1 Function 1 is not used
n/A

FUNC 2 RS-232 Parameters	
C1 on Enable RS-232	Prt on Prt oFF
C2 bd Baud Rate	600 To 19200
C3 Prm Printing Mode	mA StA (Manual Stable) mA AnY (Manual Any) Au StA (Auto Stable) Au End (Auto End) Ct StA (continuous Stable) Ct AnY (Continuous Any)
C4 Aon Enable Accumulation	on oFF
C5 Ln Language for printing	English French German Spanish
C6 Uid User ID	Enter using numeric keys
C7 Sid Scale ID	Enter using numeric keys
C8 LAb	LAB On Lab Off

FUNC 3	
Scale Parameters	
S1 Un Units enable	kg g
S2 bL Backlight	EL oFF EL on EL AU (Auto)
S3 AoF Set Auto off time (min.)	SLP 0 SLP 1 SLP 5 SLP 10
S4 dt Set time and date	Set as described in manual
S5 dIS Display mode	All StAb (only when stable)
S6 Fi Set Filter	SLoW nor (normal) FASt
S7 SPS Scale password	Enter using numeric keys
S8 CAL	Perform calibration

FUNC 4	
Scale Parameters	
F4 Pct Percent Weighing	Enter 100% reference weight
F4 Ani Animal weighing	FLt 1 Filter setting To FLt 5

WEEE 2012/19/EU



This device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements. Disposal of batteries (if fitted) must conform to local laws and restrictions.

Cet appareil ne peut être éliminé avec les déchets ménagers. L'élimination de la batterie doit être effectuée conformément aux lois et restrictions locales.

Dieses Gerät nicht mit dem Hausmüll entsorgt.

Dispositivo no puede ser desechado junto con los residuos domésticos

Dispositivo non può essere smaltito nei rifiuti domestici.