

User Manual

Models:

- BL 303
- BL 602
- BL 2002
- BL 3001
- BL 6001
- BL 30K1

Index

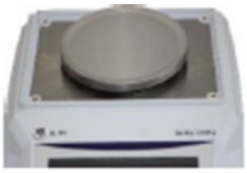
1. Glass protection 3
2. Installation 6
3. Keyboard 6
4. Start 7
5. Date and Time settings 7
6. User Calibration 7
7. Unit setting 8
8. Zero 8
9. Tare 8
10. Measure 8
11. Piece-counting feature 8
12. RS232 Printer Settings 9
13. Battery 9
14. Troubleshooting 9
15. Data sheet 10

1. Glass protection

BL 303



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BL 602

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BL 2002 – BL 3001 – BL 6001

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4



BL 30K 1



1



2 Remove the screws placed on the corners (n°4)



Remove the screw under the balance

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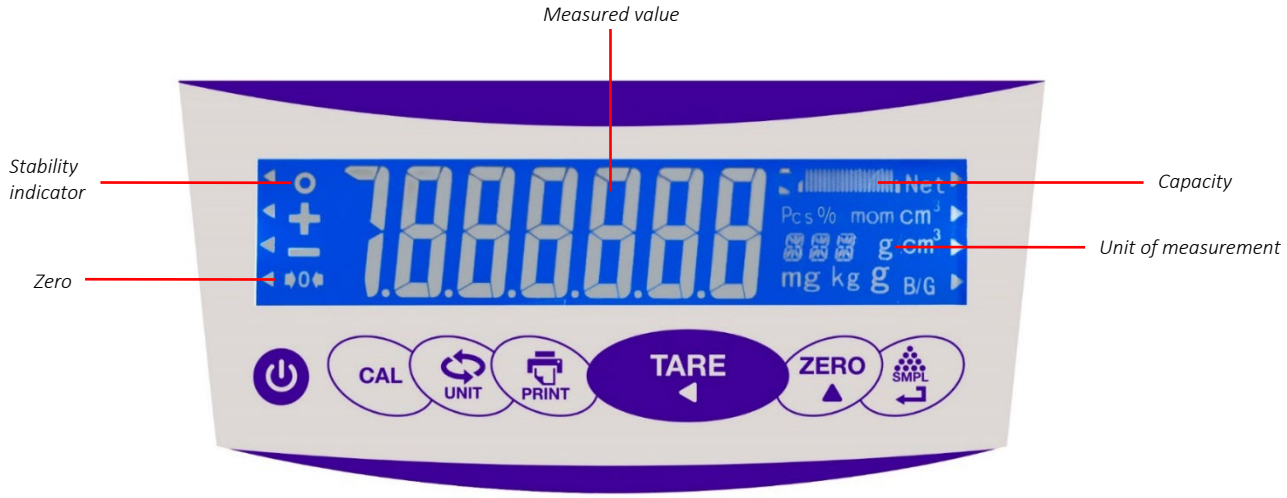


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2. Installation

- Set the scale in place and, using the leveling feet and the level bubble on the back, adjust the inclination. The scale MUST be in level.
- Protect the scale from air currents, so do not install near windows or A/C units.
- Protect the scale from vibrations.
- Working temperature: 10°C … 40°C.
- Working Humidity: 40% … 85%.
- Installation and removal of the scale should be done with the machine switched off.
- Do not use the scale upside down.
- After switching on, wait at least 30 minutes of warm-up time before performing the first weighing.
- For support, contact your dealer or an authorized assistance center.

3. Keyboard



	On/Off
CAL	Press and hold for 3 seconds to start the Calibration procedure
UNIT	Select the unit of measurement
PRINT	Send the value to the printer or PC
TARE	Tare key
ZERO	Reset the reading to zero
SMPL	Piece-counting feature, it is activated when the unit of measurement is set to %, ‰, PCS, B/G

4. Start

After leveling the scale, using the level bubble, press the On/Off key to switch on the scale. Following a 9-second countdown, also sounded by the audible signal, you will see on display the software version, the capacity of the scale, and finally the measurement mode. After switching on, wait at least 30 minutes of warm-up time before weighing.

5. Date and Time settings

While the scale is switched on, press and hold the key ZERO 3 seconds to enter the Date and Time "rtc-set" setting menu. The first data required is the year. Display shows "Year **": the flashing value is the one that can be changed. Using the following keys, change the value and confirm.

- ▲ set the value
- ◀ scroll to the next value
- ↵ confirm

Once confirmed, successively the following datas are requested:

1. Month
2. Day
3. Hour
4. Minute - Min

6. User Calibration

Each single scale is calibrated in the laboratory by qualified technicians using certified sample masses.
Included with the scale (except for the BL 30K 1) is a sample mass useful for verifying the functionality of the instrument.

Calibration procedure:

Switch on the instrument and wait for 30 minutes warm-up time. Press and hold the key for 3 seconds CAL. The display shows in order "Cal 0", "-------" and finally the value (g) of mass to be used for calibration.	**Weights used to calibrate (g)** BL 303 100 – 200 – 300 BL 602 200 – 400 – 600 BL 2002 1000 – 2000 BL 3001 1000 – 2000 – 3000 BL 6001 2000 – 4000 – 6000 BL 30K1 10000 – 20000 – 30000
Calibration is performed on a point indicated by the flashing value on the display. You can choose another point from those available by pressing the key CAL. Placing the corresponding certified weight on the weighing pan, the display initially shows "-------", then followed by the weight value. **At this point, calibration is completed.**	*If, for example, the display shows **2000** flashing, then a certified weight of **2000 g** must be placed on the plate. If, on the other hand, the display shows **100**, then a **100 g** certified weight must be used.*

7. Unit setting

Unit selection:

Use the key UNIT to select the required unit of measurement with which to display the result.

Default unit setting:

By default, the scale displays the result in grams (g). To change the default setting, with the scale turned on, press and hold the key UNIT for 3 seconds. The display shows the selected unit on the right side, in the center it is shown “On” if the unit is on, “Off” if it is off.

Use the key UNIT to scroll through the list of available units. Each unit of measurement can be activated (On) or deactivated (Off) using the key PRINT. Deactivated units will not be selectable at the time of weighing. Once you have reached the unit you want to set as the default, press SMPL to confirm.

N°	Unit	Symbol	Conversion
1	gram	**g**	*1*
2	Carat	**ct**	*0,1999694 g*
3	Pound	**lb**	*453,59237 g*
4	Ounce	**oz**	*28,349523 g*
5	Troy Ounce	**ozt**	*31,103477 g*
6	Avoirdupois Dram	**dr**	*1,7718451 g*
7	Grain	**GN**	*0,0647989 g*
8	Penny weight	**dwt**	*1,5551738 g*
9	Momme	**mom**	*3,749996 g*
10	Hong Kong Jewelry Tael	**K.tl**	*37,429002 g*
11	Taiwan Tael	**T.tl**	*37,49995 g*
12	Hong Kong Tael	**H.tl**	*37,799375 g*
13	Singapore Tael	**S.tl**	*37,799366 g*
14	Tola	**t**	*11,663804 g*
15	Mesghai	**M**	*4,6083162 g*
16	Tical	**cl**	*16,3293 g*
17	Kilogram	**Kg**	*1000 g*
18		**B/G**	
19		**PCS**	
20		**%**	
21		**‰**	

8. Zero

Without any weight on the scale pan, press the key ZERO to change the value shown on the display to 0,0 (0,00 or 0,000). The Zero function takes effect only if the displayed value is less than 4% of the total capacity. On the other hand, if the value is more than 4%, the load is considered as a tare.

9. Tare

After setting the Tare on the scale pan, press the key TARE to reset the displayed value to 0,0 (0,00 or 0,000). The load used for Tare is to be subtracted from the total weighing capacity.

10. Measure

Once you have done the Zero, and eventually the tare, place the sample you wish to weigh on the plate. When the stable measurement indicator appears, read the result on the display.

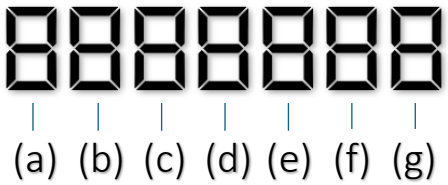
11. Piece-counting feature

Set PCS, % or ‰ as the unit of measurement, and press the key SMPL.
The display shows "S - 5," where "5" indicates the number of pieces to be placed on the plate to be sampled, or the % to be associated with the reference sample. You can change this value using the key ▲ and select a value from 5, 10, 50, 100, 500 and 1000. Place the exact number of pieces on the plate and press the key ↵.
Add the remaining pieces to count and proceed to the total count.

12. RS232 Printer Settings

Connect the printer to the RS-232 port on the back of the scale. Press and hold the key for 3 seconds, the display first shows "rS-Set", then "8888888" appears.
According to the following scheme, change the settings as you need:

- ▲ adjusts the value
- ◀ switch to the decimal beside



a	**0**= 9600	**1**= 19200	---	---
b	**0**= continuous print	**1**= stable reading print	**2**= press PRINT to print	---
c	**0**= ---	**1**= print the date	---	---
d	**0**= ---	**1**= print object*	---	---
e	**0**= PC mode	**1**= special paper	**2**= continuous paper	**3**= micro-printer
f	**0**	---	---	---
g	**0**	---	---	---

Confirm at the end with the key ↵.

Object setting:
You can set a numerical value (object) that will be displayed on the printout, for example, the scale serial number. To do this, with the scale turned on, press and hold the key TARE ◀ for 3 seconds. The display will show "ItemSet" and then "1234567". Change the string as follows:

- ▲ adjusts the value
- ◀ switch to the decimal beside
- ↵ confirm.

13. Battery

The scales are equipped with rechargeable battery. To recharge it, use the special power supply, found inside the package, and connect it to the input on the back of the scale. The scales can also operate on network power.

14. Troubleshooting

Problem description	Reason	Solution
It doesn't turn on	Lack of power	Connect the power supply. Check the power supply connector.
Error in reading. Not calibrating.	Wrong calibration. Wrong working conditions.	Calibrate the scale. Be sure the working conditions are suitable.
Turns itself off	Low batteries	Connect the power supply and recharge the batteries.
"Over"	The load exceeds the maximum capacity	Check the load. Check if the plate interferes with the safety screws on the top and bottom of the instrument at the load cell.

15. Data sheet

Model	BL 303	BL 602	BL 2002	BL 3001	BL 6001	BL 30K1
Code	27000513	27000323	27000313	27000113	27000123	27000133
Capacity	300 g	600 g	2000 g	3000 g	6000 g	30000 g
Resolution	0,001 g	0,01 g	0,01 g	0,1 g	0,1 g	0,1 g
Repeatability	± 0,002 g	± 0,01 g	± 0,02 g	± 0,2 g	± 0,2 g	± 0,2 g
Linearity	± 0,002 g	± 0,01 g	± 0,02 g	± 0,2 g	± 0,2 g	± 0,2 g
Minimum weight	0,020 g	0,20 g	0,20 g	1 g	2 g	1 g
Pan size (mm)	Ø 118	Ø 118	188 * 148	188 * 148	188 * 148	330 * 260 * 80
*Size (L*l*H mm)*	292 * 218 * 227	292 * 218 * 227	292 * 218 * 80	292 * 218 * 80	292 * 218 * 80	330 * 260 * 83
Weight	3,1 Kg	3,1 Kg	2,8 Kg	2,8 Kg	2,8 Kg	6 Kg
Level bubble	Yes	Yes	Yes	Yes	Yes	Yes
External calibration	Yes	Yes	Yes	Yes	Yes	Yes
RS232 connection	Yes	Yes	Yes	Yes	Yes	Not
Piece-counting feature	Yes	Yes	Yes	Yes	Yes	Yes
Rechargeable battery	Yes	Yes	Yes	Yes	Yes	Yes
Protective cover	Optional	Optional	Yes	Yes	Yes	Not
Adjustable feet	Yes	Yes	Yes	Yes	Yes	Yes



Electrical and electronic equipment with this symbol affixed may not be disposed of in public landfills.
In accordance with the WEEE Directive 2012/19/EU, European users of electrical and electronic equipment have the option of returning used equipment to the Distributor or Manufacturer when purchasing new equipment.
Illegal disposal of electrical and electronic equipment is punishable by administrative fine.