Baxtran ABD Measuring Scales User Manual

ABD COMPACT BALANCE WEIGHT CONTROL
User Manual

The manufacturer reserves the right to modify the specifications of its products in order to make technical improvements or comply with new regulations.

Contents

EXCITATION

ABD

Input	230~240V
Output	10V 600mA
Rechargeable Battery	6V/4Ah

BEFORE ITS USE

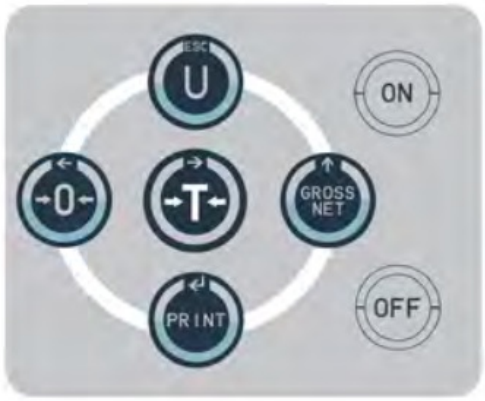
1. Use an independent electric source to prevent electronic disturbances.
2. Don’t place any object on the platform when switching on the indicator.
3. Please, warm-up the scale during 2-3 minutes before using it.
4. Avoid sudden changes in temperature and draughts.
5. Don’t overload the scale; do not exceed its maximum capacity.

CONSUMPTION

ABD

Battery life:	Without back illumination, approx., 160 hours.
	With back illumination, approx., 120 hours.

KEYBOARD DESCRIPTION



ON	**First function;** Press this key to switch on the scale.
OFF	**First function;** Press and hold the key during 3 seconds to switch of the indicator.
ESC U	**First function;** to choose the unit of weight. **Second function;** to exit from the programming mode.
T	**First function;** : to remove (tare) the weight of a container. **Second function;** to move to the right in the programming mode.
0	**First function;** 0. **Second function;** to move to the left.
GROSS NET	**First function;** to view the brute weight after that to do the tare (weight) the container. **Second function;** To increase the values inside the programming.
PRINT	**First function;** to accumulate in memory the value of the weight that appears in the screen. **Second function;** manual transmission of data through RS-232 port to a PC or printer. (No fu nction ABD) **Third function;** confirmation key in the programming mode..

ABD APPLICATIONS

5.1 NORMAL WEIGHING MODE
5.1.1 EQUIPMENT CONFIGURATION
5.1.2 FIRST CALIBRATION
5.1.3 USE
5.2 PIECE COUNTING MODE
5.2.1 EQUIPMENT CONFIGURATION
5.2.2 FIRST CALIBRATION
5.2.3 USE

5.3 LIMITS AND ALARM
5.4 UNIT RANGE/ MULTI RANGE/ MULTI INTERVAL
5.1 NORMAL WEIGHING MODE
5.1.1 CONFIGURATION OF THE EQUIPMENT
See section LF2 of the technical parameters
5.1.2 FIRST CALIBRATION
See section LF1 of the technical parameters
5.1.3 USE
Switch on the equipment when all the parameters have been correctly configured and the equipment has been calibrated

- Make sure than the value of the indicator, without load on the platform, is 0. If this is not the case, press  .
- Place the weight on the platform and the platform will show the weight.
- The accumulation and sending of data will depend on the mode chosen in the section UF-6

5.2 PIECE COUNTING MODE
5.2.1 CONFIGURATION OF THE EQUIPMENT
See section LF2 of the technical parameters
5.2.2 FIRST CALIBRATION
See section LF1 of the technical parameters
5.2.3 USE
Switch on the equipment when all the parameters have been correctly configured. Make sure that the value on the visor, with no load on the platform, is 0. If this is not the case press the key  .
STEPS TO FOLLOW;

1. Press the key  until the symbol PCS appears on the screen.
2. Press the key  successively to choose the quantity of pieces of the sample. On the screen will appear, successively, C10/C20/ C50/C100/C200.
3. Place the sample on the platform, and wait until the sign of stability and press the key  .
4. Place the product on the platform and the screen will show the number of pieces.

The accumulation and the sending of data will depend on the mode chosen in the section UF-6.

- To turn to the normal weighing mode, press the key 
- If the user wants to go back to the piece counting mode, using the same sample of reference, press the key  again.
- If the user want to change the sample of reference, the user must repeat the steps described above.

5.3 LIMITS AND ALARM
The user can configure the superior and inferior limits of the sample placed on the platform.
The display will show if the sample is lower to the inferior limit Lo, above the superior limit Hi or in the zone between the two limits OK The user can configure when he wants to make the alarm ring and the stability needed to make it happen.
All the procedure is described in the section UF-2.
If the user wants to define the limits in the normal weighing mode and wants to use the limits in piece counting mode, he must define the new limits for this mode, when it changes to weight mode again, the user will recover

the limits he already has. The same happens otherwise.

5.4 UNIT RANGE / MULTI-RANGE / MULTI-INTERVAL

The indicator can be configured with an only range, a maximum weight and a value of step. It can also be configured as multi range or multi interval, in such cases there is a maximum weight.

From 0 to the medium weight of these maximum weight it is used the value of the chosen step (step 1) and from the half to the maximum weight it is used the next value in the step (step 2).

The screen indicators R1 and R2 point out the range which the user is using at every moment.

In the multi interval mode the weight increases, in the range use it used step 1, when the user goes to range 2 the step 2 is used.

When the weight decreases and the user go back to range 1, the step 1 is used again. On the contrary, in mode multi range, when the weight decreases and the device go back to range 1, the device continues using step 2 until it reaches 0.

In the section LF2 of the technical parameters the user can choose the range mode.

SETTINGS

PARAMETER	DESCRIPTION
UF- 1	Internal calculation (A/D)
UF-2	Limit Configuration of weight (superior and inferior)
UF-3	auto auto off
UF-4	Back illumination of display
UF-5	Four modes of hold
UF-6	RS-232 Output (PC/PRINT) (No function ABD)
UF-7	Configuration of the speed of the converter (A/D)
UF-8	blind
UF-9	Configuration of gravity
UF- 10	Speed of filter
UF- 11	Stabilization speeds

PARAMETERS CONFIGURATION

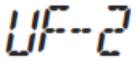
7.1 INTERNAL COUNTING (A/D)
7.2 CONFIGURATION OF THE WEIGHT LIMITS (SUPERIOR AND INFERIOR)
7.3 AUTO SWITCH OFF
7.4 CONFIGURATION OF THE ILLUMINATION OF THE DISPLAY
7.5 HOLD FUNCTION
7.6 RS-232 DATA EXIT (NO FUNCTION ABD)
7.7 CONFIGURATION OF THE SPEED OF THE AD CONVERTER
7.8 BLIND
7.9 CONFIGURATION OF THE GRAVITY

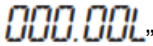
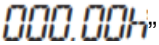
7.10 SPEED OF FILTER
7.11 STABILIZATION SPEEDS

To access the configuration of parameters when the screen is in zero, the user must press at the same time the keys  and  . Press the key  or  to choose the desired character (UF-1 ~ UF-11) To go back to the previous mode press the key  .

7.1 INTERNAL COUNTING (A/D) | 

1. Press the key  to view the internal sums of the scale.
2. To go to the next parameter, press the key  the screen will show the value of the voltage of the battery.
3. To exit this mode and go back to the normal weighing, the user must press the key  or  .

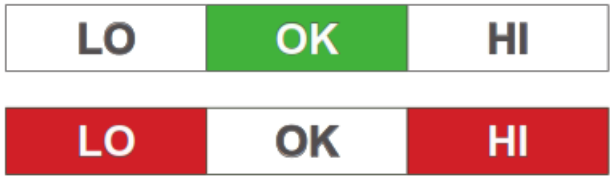
7.2 CONFIGURATION OF THE LIMITS OF WEIGHT (SUPERIOR AND LOWER) | 

1. Press the key  to access the parameter.
2. The display will show the message “  ” (inferior limit)
3. Use the keys  and  to move the cursor and the key  to choose the desired number.
4. Press the key  to confirm.
5. The display will show the message “  ” (Superior limit= Hi)
6. Use the keys  and  to move the cursor and press the key  to choose the desired number.
   Note: You can can stay over the last digit to modify if you wish.
7. Press the Key  to confirm.
8. El display shows the value.

   A B C

   0 0 0

   (configuration of the alarm)

DISPLAY	VALUE	ESTABILITY
A	0	There is no need to stabilize the alarm to make it ring
	1	The alarm must be stabilized to ring
B	0	Always 0
C	**0** **1** **2**	Alarm switched off The alarm ring if it is place on the band **OK** The alarm rings if it is situated below the **Hi** 

9. Press the keys  and  to move the cursor and the key  to choose the desired number.
10. Press the key  to confirm.

7.3 AUTO SWITCH OFF | UF-3

MODES:

- AoFF 00 – Auto switch off deactivated
- AoFF 01 – Auto switch off activated in a minute. The scale is going to switch off automatically after 1 minute of not being used.
- You can configure the value wished from 1 to 99 minutes.

1. Press the key  to have an access to the parameter.
2. Press the keys  and  to move the cursor and the key  to choose the desired number.
3. Press the key  to confirm.

7.4 DISPLAY BACKLIGHTING | UF-4

MODES:

- A: Automatic.
- ON: Illumination Activated.
- OFF: Illumination Deactivated

1. Press the key  to have an access to the parameter.
2. Press the key  to select the desired mode.

3. Press the key  to confirm.

7.5 HOLD FUNCTION | UF-5

(Once the object is retired from the plate, the display maintains the weight fixed until press the Key  ,This function is very useful for the weighing of animals). Note; if you activate the hold mode, not can use the function limits and accumulation.

1. Press the key  to access to the parameter.
2. Press the key  to choose the desired mode.
3. Press the key  to confirm.

MODES:

- HOLD 0 : Deactivated.
- HOLD 1 : Animal in movement
- HOLD 2 : Value of peak
- HOLD 3 : Hold steady
- HOLD 4 : Hold steady with self cancelling at zero.

HOLD 1.

- When the user can access this parameter, the screen shows the message PCt,
- Use the keys  and  to move the cursor and the key  to choose the desired value of the range of HOLD, you can choose a number from 001 to 100.
- Press the key  to confirm.
- It will appear on the screen the message **time 8,** use the keys  and  to move the cursor and the key  to choose the number of times you want to repeat during the range of hold.
- Press the key  to confirm. Example: PCt small and big time means more accuracy and longer stabilization..

7.6 ACCUMULATION| UF-6 (NO FUNCTION ABD)

FORMAT OF THE DATA

232 1 232 2 232 3	**NO FUNCTION ABD**
232 4 232 5 232 6	**NO FUNCTION ABD**
232 7	Connection sending and manual accumulation, passing by zero and pressing the key . W hen the display is set to 0, press the key twice and removed from weighing memory.
232 8	Connection sending and manual accumulation, passing by zero and pressing the key . W hen the display is set to 0, press the key twice and removed from weighing memory.
232 9	Connection sending and manual accumulation, passing by zero and pressing the key . W hen the display is set to 0, press the key twice and removed from weighing memory.
232 10	Connection sending and manual accumulation, passing by zero and pressing the key . W hen the display is set to 0, press the key twice and removed from weighing memory.

7.6.1 TRANSMISSION SPEED

1. Press the key to access the parameter
2. Press the key to choose the data exit mode wanted.
3. Press the key to confirm.

The screen shows the different possibility:

SPEED OF TRANSMISSIOIN	
b1200	1200 baudios
b2400	2400 baudios
b4800	4800 baudios
b9600	9600 baudios
b19200	19200 baudios
b38400	38400 baudios

4. Press the key to choose the speed of transmission needed.
5. Press the key to confirm.

7.7 CONFIGURATION OF THE SPEED OF THE CONVERTER| UF-7

1. Press the key  to access the parameter.
2. Press the key  to choose the desired mode:
   - Mode 1 : Normal
   - Mode 2: Fast
   - Mode 3: Slow
3. Press the key  to confirm.

7.8 BLIND| UF-8

It appears 0 on screen until the next division is selected. It starts to show values from that division.
Example:
Scale with e =2g
Blind in 5 divisions
It will show 0 until it reaches 25= 10 g, the first value it will show will be 12g

1. Press the key  to access the parameter
2. Press the key  to select.
3. Press the key  to confirm.

7.9 CONFIGURATION OF GRAVITY| UF-9

1. Press the key  to view the value of the actual gravity.
2. To change the value, press the key  , next you must use the key  and  to move the cursor and the key  to select the desired number.
3. Press the key  to confirm.

CONFIGURATION OF THE READJUSTMENTS IN CALIBRATION

1. When the user is in the normal mode of weighing, he must press the keys  and  , the message ECF-1 is going to appear on the display.
2. Press the keys  and  to select the desired function: **ECF-1, ECF-2 or ECF-3**

*** ECF-1 CALIBRATION OF ZERO + WEIGHT**

Press the key  , the display will show CALZ.

Press the key , to put the reading of the display to zero.

Press the keys and to move the cursor.

Press the key to introduce the value of the weight of calibration..

Place the weight of calibration on the platform and press the key to do the calibration once the reading is steady.

*** ECF-2 CALIBRATION OF ZERO**

Press the key , the display will show CALZ.

Press the key , to put the reading of the display to zero.

Press the key , to calibration.

*** ECF-3 CALIBRATION OF WEIGHT (SPAN)**

Press the key , the display will show the value of the weight of calibration.

Press the keys and to move the cursor.

Press the key to modify the value of the weight of calibration.

Press the key to confirm.

Place the weight of calibration on the platform and press the key to do the calibration once the reading is stable.

TECHNICAL PARAMETERS

DO NOT MODIFY THE TECHNICAL PARAMETERS IF IT IS NOT STRICTLY NEEDED. A BAD CONFIGURATION OF THIS SECTION CAN CAUSE A WRONG FUNCTIONING OF THE SCALE.

ENTRANCE AND EXIT OF THE CALIBRATION

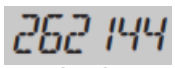
DISPLAY	DESCRIPTION AND SEQUENCE OF USE
LF 1	With the visor switched off, press and hold the key and until the message P000. , a ppears on the screen, then you can release the keys With the keys , and introduce the code 0020.. Press the key to start or the key to exit the menu and the indicator will begin again a uto- magically.

CALIBRATION OF THE WEIGHT LF 1

DISPLAY	DESCRIPTION and SEQUENCE OF USE
	The calibration can be done with any weight, but the weight ca not be inferior t o 1/100 of the maximum capacity and it must also never be exceeded. • Press the key PRINT to start the calibration of zero (press U to exit the calibration and go back to the menu LF1) • Use →0←, →T←, and GROSS NET, 0 ~ 9 and then PRINT pto introduce the weight with which the calibration will be done. (press the key U to exit the calibration and go back to the menu LF1) • Place the required weight on the scale as it is indicated in the display. • Once everything is steady, press the key PRINT to calibrate it (press the key ESC to exit the calibration and go back to the menu LF1). THE CALIBRATION IS GOING TO FINISH AND THE SCALE WILL GO VACK TO T HE WEIGHING MODE AUTOMATICALLY.

CONFIGURATION 

FIRST STEP

DISPLAY	DESCRIPTION AND SEQUENCE OF USE
 FIRST STEP	• DISPLAY OF THE INTERNAL COUNTING
SECOND STEP	• POSSIBLE VALUES OF THE PARAMETERS

1 0 0 0 0 1

A B C D E F

A: Metric system	0:NO	1: kg	2:T	3:g
B: American system	0:NO	1: lb	2:lb oz	3:VISS
C: other unities	0:NO	1: TW kg	2:HK kg	
D: PCS	0:OFF	1: ON		
E: double range	0:OFF	1: multi interval	2:multi range	
F: units of calibration		1:use metric	2:use American unities	

lb oz cannot be selected as unities of calibration.

※The scale won't let us continue up to the next step if there is a mistake during the programming.

THIRD STEP

000000kg

FOURTH STEP

dP 0.0

FIFTH STEP

diV 01

• Use 

, 

and 

, 0 ~ 9 and then press 

to introduce THE MAXIMUM CAPACITY.

•Use the Keys 

, 

to change the position of the DECIMAL POINT.

d 0.00	d 0.000	d 0.0000	0.00000

• Use 

to select the DIVISION:

diV 01, diV 02, diV 05, diV 10, diV 20, diV 50

	※ After introducing the parameters LF2, the indicator will show the last configuration saved. All the steps to follow must be completed, if they are not don e the indicator will continue with the previous configuration. ※ Proceed with the calibration of weight after LF2. • Press the key PRINT to start and display the internal value. Press U to exit the menu and the scale will automatically restart. • Press the key PRINT To continue with the configuration. (press the key U to exit from the configuration and go back to the menu LF2). Use the keys -T- , -0- and GROSS NET , 0 ~ 9 and then press the key PRINT to choose t he UNITS OF WEIGHT . (press the key U to exit from the configuration and go back to the menu LF2).
	• Use the keys -T- , -0- and GROSS NET , 0 ~ 9 and then press the key PRINT to choose the MAXI-MUM WEIGHT. press the key U to exit from the configuration and go back to the menu LF2). • Use the keys -T- , -0- and then PRINT To move the decimal point (press the key To exit from the configuration and go back to the menu LF2).
	• Use GROSS NET and then PRINT the change the step.(Press the key U to exit from the configuration and go back to the menu LF2). • Use -T- , -0- and PRINT To continue with the other configuration or press the k ey U to exit from the menu and the scale will begin again automatically).

LINEAL CALIBRATION 

Up to six steps of calibration W0 ~W6

Make sure that the plate of the scale is empty before starting the calibration.

Press the key -0- or the first point of calibration.

The previous points of calibration will be removed and the message CLEAR is going to appear on the screen.

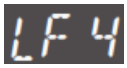
Press the key to proceed with the next point of calibration.

Press the key to go back to the previous point of calibration.

Press the key to save everything.

Press the key to finish the calibration and go back to the menu LF3.

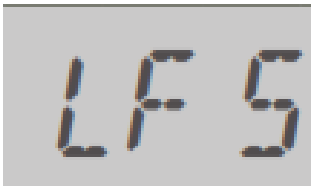
DISPLAY	DESCRIPTION AND SEQUENCE OF USE
	• Press the Key to start or the key to exit the menu and the scale will start again auto-magically. • Press the Key to calibrate the zero. (press the key to exit from the calib ration and go back to the menu LF3) • Place 1/3 of the maximum weight on the plate and press to calibrate 2/3 th th e capacity. (press the key to exit from the calibration and go back to the menu LF3).
	• Place 2/3 of the maximum weight on the plate and press to calibrate 2/3 th th e capacity. (press the key to exit from the calibration and go back to the menu LF3). • Place the maximum weight on the plate and press the key to calibrate the full capacity. (press the key to exit from the calibration and go back to the menu L F3).
	• Press the key to complete the lineal calibration. (press the key to exit fro m the calibration and go back to the menu LF3) • Use the keys , and then the key to continue with other adjustments and press the key to exit from the menu and the scale will begin a gain automatically.

VELOCIDAD DEL CONVERTIDOR AD 

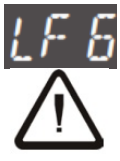
SPEED 1 standard speed 15Hz.
SPEED 2 high speed 30Hz.
SPEED 3 low speed 7.5Hz
*This function stays blocked when UF-5 is in mode HOLD 1.
*The value of factory is 1

DISPLAY	DESCRIPTION AND SEQUENCE OF USE
	• Press the key PRINT to start or the key U to exit from the menu and the scale is going to begin again automatically. • Use the key GROSS NET and then the key PRINT to select the speed of the AD converter (press the key U to exit from the configuration and go back to the menu LF4) • Use the keys -T- , -0- and then PRINT . To continue with the other adjustment and press the key U to exit from the menu and the scale will start again automatically.

BLIND LF 5

DISPLAY	DESCRIPTION AND SEQUENCE OF USE
	ZP 0 OFF ZP 1 One division will not show being at zero ZP 2 Two division will not show being at zero ZP 3 Three divisions will not show being at zero ZP 4 Four divisions will not show being at zero ZP 5 Five divisions will not show being at zero *This function is going to be blocked when UF-5 is in mode HOLD 1 *The value of factory is ZP 0
	• Press the key PRINT to start or the key U to exit from the menu and the scale will start again automatically. • Use the key GROSS NET and the key PRINT to select how many divisions will show when in zero (press ESC to exit from the configuration and go back to the menu LF4) • Use the keys -T- , -0- and then the key PRINT to continue with other adjustment or press the key U to exit from the menu and the scale is going to start automatically.

APPROVAL CONFIRMITY LF 6

DISPLAY	DESCRIPTION AND SEQUENCE OF USE
	nonE Version not approved DON'T MODIFY, IN NO WAY, THIS PARAMETER. IT MUST ALWAYS BE CONFIGURED AT nonE. The change of this parameter implies the blocking of some functionalities.

GRAVITY 

*Introduce the gravity of your zone before doing the first calibration.
*Introduce the gravity of destination after doing the calibration.
*The value of the gravity will be denied if it is bigger than 9.83217 (gravity of the pole) or inferior to 9.78031 (gravity of the equator).
Value of factory: 9.8035

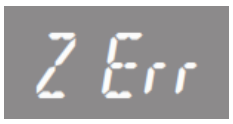
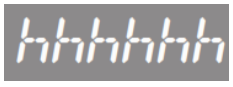
DISPLAY	DESCRIPTION AND SEQUENCE OF USE
	• Press the key PRINT to continue or the key U to exit from the menu and the scale will start again automatically. • The screen is going to show the number of pre-calibration during one second. • Press the key PRINT to continue. • Use the keys -T- , -0- and GROSS NET , 0 ~ 9 and then the key PRINT to introduce the v alue of gravity (press ESC to exit from the configuration and go back to the menu L F7)

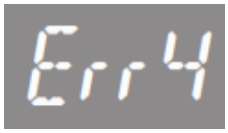
INITIAL ZERO 

SETZY resets of the point of zero every time that the scale is begun again.
SETZN resets of the point zero OFF

DISPLAY	DESCRIPTION AND SEQUENCE OF USE
	• Press the key PRINT to start or the key U to exit from the menu and the scale will start again automatically. • Use the key GROSS NET and then press the key PRINT to choose the initial zero mode. (Pre ss the U Key to exit of the configuration and go back to menu LF8) • Use the keys -T- , -0- and then the key PRINT to continue with other adjustments 0 press the U key to exit from the menu and the scale will start again automatically.

ERROR MESSAGES

MESSAGE	DESCRIPTION
	Initial zero too high (over 10% of max. cap).
	Initial zero too high (over 10% of max. cap).
	Initial zero too high (approved model).
	Initial zero too low (less than 10% of max. cap).
	Initial zero too low (approved model).
	Unstable internal value.
	Internal code is not stable.
	Overloading
	Overloading
	Overloading
	Linearity correcting not well or linearity correcting cancel.
	Weight is too low.

	Internal code is too low.
	E2ROM abnormal.
	Total price is more than 999999.
	Battery volume is too low.
	Calibration failure, check the loadcell.

GUARANTEE

This scale has a warranty against all manufacture and material defects, for a period of a year starting with the delivery date.
During this period, GIROPES, will be in charge of the repairing of the scale.
This warranty does not include the damages done by overload or wrong use.
The warranty does not cover the delivery expenses necessary for the repair of the scale.

Baxtran

trade mark propriety of:
Pol. Empordà Internacional C/ Molló, 3
17469 VILAMALLA – (Girona) SPAIN
T. (34) 972 527 212 – F. (34) 972 527 211

GIROPES

Documents / Resources

Baxtran ABD Measuring Scales [pdf] User Manual
ABD, ABD Measuring Scales, Measuring Scales, Scales