X2ss

INDICATOR

EN

V.2.2
22/06/2021

VALUE EACH GRAM
HiWEIGH

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1. EXCITATION

Input	220V
Output	9V 500mA
Rechargeable Battery	6V/1,2Ah

2. 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.

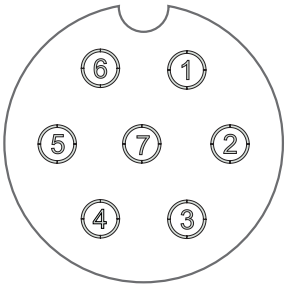
3. CONSUMPTION

Battery life:	without back illumination, approx, 40 hours.
	With back illumination, approx, 20 hours.

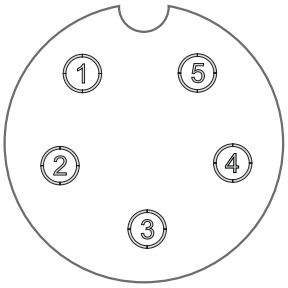
4. LOAD CELL CONNECTION TO THE INDICATOR

The connector of the load cell has 7 pins or 5 pins.

- Do not disconnect the connector of the load cell when the indicator is working, because you could damage the equipment.

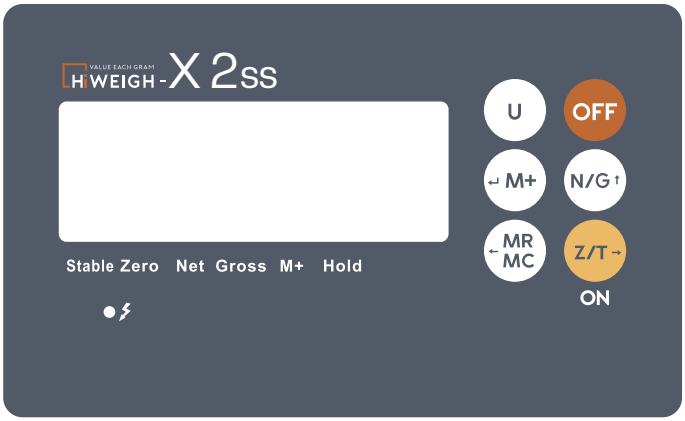


PIN 1	E+
PIN 2	SEN+
PIN 3	E-
PIN 4	SEN -
PIN 5	S+
PIN 6	GND
PIN 7	S-



PIN 1	E+
PIN 2	E-
PIN 3	S+
PIN 4	S-
PIN 5	GND

5. KEYBOARD DESCRIPTION



Z/T ON	First function: Press this key to switch on the scale. Second function: to place the reading of the display at "0", the value of the display must be lower to + 2% of the maximum capacity. Third function: to subtract the weight of a recipient Fourth function: to move to the right in the programming mode.
OFF	First function: press and hold the key during 3 seconds to switch of the indicator.
U	First function: to choose the unit of weight. Second function: to exit from the programming mode.
MR MC	First fonction: to remove (tare) the weight of a container. Second fonction: To remove the memory of the accumulations. (long press) Third fonction: to move to the left.
N/G	First fonction: to accumulate in memory the value of the weight that appears in the screen. Third fonction: to increase the values inside the programming.
M+	First fonction: to view the number of accumulations and the accumulated weight. Second fonction: manual transmission of data through RS-232 port to a PC or printer. Third fonction: confirmation key in the programming mode.

6. X2 APPLICATIONS

6.1 NORMAL WEIGHING MODE

6.1.1 CONFIGURATION OF THE EQUIPMENT

See section LF2 of the technical parameters

6.1.2 FIRST CALIBRATION

See section LF1 of the technical parameters

6.1.3 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
- You can display the accumulated values at any time by pressing MR MC (TOTALIZING)

6.2 PIECE COUNTING MODE

6.2.1 CONFIGURATION OF THE EQUIPMENT

See section LF2 of the technical parameters

6.2.2 FIRST CALIBRATION

See section LF1 of the technical parameters

6.2.3 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 Z/T ON

STEPS TO FOLLOW

1. Press the key U until the symbol PCS appears on the screen.
2. Press the key N/G↑ 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 ↵M+
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 U to select Kg again.
- If the user wants to go back to the piece counting mode, using the same sample of reference, press the key U again.
- If the user want to change the sample of refer ence, the user must repeat the steps described above.

6.3 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.

6.4 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 and two steps.

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.

7. PARAMETERS

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)
UF-7	Configuration of the speed of the converter (A/D)
UF-8	blind
UF-9	Configuration of gravity

8. PARAMETERS CONFIGURATION

To access the configuration of parameters when the screen is in zero, the user must press M+ and Z/T ON at the same time the keys MR MC or Z/T ON choose the desired character (UF-1~UF-11), for confirm the changes done, press M+ to go back to the previous mode press the key U

8.1 INTERNAL COUNTING (A/D) | UF-1

1. Press the key M+ to view the internal sums of the scale.
2. To go to the next parameter, press the key M+ 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 M+ or U

8.2 CONFIGURATION OF THE LIMITS OF WEIGHT (SUPERIOR AND INGERIOR) | UF-2

1. Press the key M+ to access the parameter.
2. The display will show the message " 000.00L" (inferior limit)
3. Use the key MR MC and Z/T ON to move the cursor and the key N/G to choose the desired number.
4. Press the key M+ to confirm.
5. The display will show the message "000.00h" (Superior limit)= Hi
6. Use the keys MR MC and Z/T ON to move the cursor and the key N/G to choose the desired number.

   Note: If you need to change or modify the last digit you can place the cursor on it to do it.
7. Press the key M+ to confirm.
8. The display will show 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	Alarm switched off	
	1	The alarm ring if it is place on the band OK (between the limits Lo and Hi)	LO OK HI
	2	The alarm rings if it is situated below the inferior limit Lo or above the superior limit Hi	LO OK HI

9. Press the keys MR MC and Z/T ON to move the cursor and the key N/G to choose the desired number.
10. Press the key M+ to confirm.

8.3 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 M+ to have an access to the parameter.
2. Press the keys M+ and Z/T ON to move the cursor and the key N/G to choose the desired number.
3. Press the key M+ to confirm.

8.4 DISPLAY BACKLIGHTING | UF-4

MODES:

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

1. Press the key M+ to have an access to the parameter.
2. Press the key N/G↑ to select the desired mode.
3. Press the key M+ to confirm.

8.5 HOLD FUNCTION | UF-5

(Once the object is retired from the plate, the display maintains the weight fixed during some seconds. This function is very useful for the weighing of animals)

1. Press the key M+ to access to the parameter.
2. Press the key N/G↑ to choose the desired mode.
3. Press the key M+ 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 ←MR MC and Z/T ON→ to move the cursor and the key N/G↑ to choose the desired value of the range of HOLD, you can choose a number from 001 to 100.
- Press the key M+ to confirm.
- It will appear on the screen the message time 8, use the keys ←MR MC and Z/T ON→ to move the cursor and the key N/G↑ choose the number of times you want to repeat during the range of hold.
- Press the key M+ to confirm.

  Example: PCt small and big time means more accuracy and longer stabilization.

8.6 RS-232 DATA EXIT | UF-6 (NO FUNCTION)

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

1. Press the key M+ to access the parameter.
2. Press the key N/G↑ to choose the desired mode:
   - Mode 1 : Normal
   - Mode 2: Fast
   - Mode 3: Slow
3. Press the key M+ to confirm.

8.8 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 M+ to access the parameter.
2. Press the key N/G↑ to select.
3. Press the key M+ to confirm..

8.9 CONFIGURATION OF GRAVITY | UF-9

1. Press the key M+ to view the value of the actual gravity.
2. To change the value, press the key M+ , next you must use the key Z/T ON→ and ←MR MC to move the cursor and the key N/G↑ select the desired number.
3. Press the key M+ to confirm.

9. CONFIGURATION OF THE READJUSTMENTS IN CALIBRATION

1. When the user is in the normal mode of weighing, he must press the keys ←MR MC and M+, the message ECF-1 is going to appear on the display.
2. Press the ke Z/T ON→ or ←MR MC to select the desired function: ECF-1, ECF-2 or ECF-3

* ECF-1 CALIBRATION OF ZERO + WEIGHT

Press the key M+ ,the display will show CALZ.

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

Press the keys Z/T ON→ and ←MR MC to move the cursor

Press the key N/G↑ to introduce the value of the weight of calibration.

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

* ECF-2 CALIBRA TION OF ZERO

Press the key M+ , the display will show CALZ.

Press the key M+ , to calibration.

* CALIBRATION OF WEIGHT (SPAN)

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

Press the keys Z/T ON and MR MC to move the cursor

Pulsar la tecla N/G to modify the value of the weight of calibration.

Pulsar la tecla M+ to confirm.

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

10. 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 Z/T ON until the message 100911, appears on thescreen, then you can release the key Z/T ON . It will ask us to enter the PIN code. This is 00020. • Press the key M+ to start or the key U to exit the menu and the indicator will begin again automatically.

CALIBRATION OF THE WEIGHT LF 1

DISPLAY	DESCRIPTION AND SEQUENCE OF USE
LF 1	The calibration can be done with any weight, but the weight ca not be inferior to 1/3 of the maximum capacity and it must also never be exceeded.
CAL Z M+	• Press the key M+ to start the calibration of zero (press U to exit the calibration and go backto the menu LF1)
150.00 kg M+	• Use MR MC , Z/T ON and N/G ,0 ~ 9 and then press M+ to 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)
150.00 kg M+	• Place the required weight on the scale as it is indicated in the display.
150.00 kg M+	• Once everything is steady, press the key M+ 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 THE WEIGHING MODE AUTOMATICALLY.

CONFIGURATION LF 2

DISPLAY	DESCRIPTION AND SEQUENCE OF USE
FIRST STEP 262144	• DISPLAY OF THE INTERNAL COUNTING • POSSIBLE VALUES OF THE PARAMETERS
SECOND STEP 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 C: other unities 0:NO 1: TW k 2:HK kg 3:VISS D: PCS 0:OFF 1: ON E: double range 0:OFF 1: multi interval 2:multi range F: units of calibration 1:use metricu nities 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

• Use MR MC, Z/T ON and N/G, 0 ~ 9 and then press M+ to introduce THE MAXIMUM CAPACITY considering the number of decimal zeros to be used. Ex. 150.00kg = introduce 15000 if then selected as decimal d0.00

FOURTH STEP
dP 0.0

• Use the Keys MR MC, Z/T ON to change the position of the DECIMAL POINT.

d 0.00 | d 0.000 | d 0.0000 | 0.00000

FIFTH STEP
diV 01

• Use N/G to select the DIVISION: diV 01, diV 02, diV 05, diV10, 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 done the indicator will continue with the previous configuration.

※ Proceed with the calibration of weight after LF2.

PROCESS	
LF 2	• Press the key M+ to start and display the internal value. Press U to exit the menu and the scale will automatically restart.
M+	
262144	• Press the key M+ To continue with the configuration. (press the key U to exit from the configuration and go back to the menu LF2).
M+	
100001	• Use the key MR MC, Z/T ON and, N/G 0 ~ 9 and then press the key M+ to choose the UNITS OF WEIGHT . (press the key U to exit from the configuration and go back to the menu LF2).
M+	
000000kg	• Use the key MR MC, Z/T ON and, N/G 0 ~ 9 and then press the key M+ to choose the MAXIMUM WEIGHT , considering the number of decimal zeros to be used. (Press the key U to exit from the configuration and go back to the menu LF2).
M+	
d 0.0kg	• Use the keys MR MC, Z/T ON and then M+ to move the decimal point (press the key U to exit from the configuration and go back to the menu LF2).
M+	

div 01	• Use N/G↑ and then ↵M+ to change the step. (Press the key U to exit from the configuration and go back to the menu LF2).
↵M+	
LF2	• Use ←MR MC Z/T→ ON and then ↵M+ to continue with the other configuration or press the key U to exit from the menu and the scale will begin again automatically).
↵M+	

LINEAL CALIBRATION LF 3

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 Z/T→ ON for 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 Z/T→ ON to proceed with the next point of calibration.

Press the key Z/T→ ON to go back to the previous point of calibration.

Press the key ↵M+ to keep everything.

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

DISPLAY	DESCRIPTION AND SEQUENCE OF USE
LF3	• Press the Key ↵M+ to start or the key U to exit the menu and the scale will start again auto-matically.
↵M+	
W0	Press the key Z/T→ ON to calibrate the zero. (press the key U to exit from the calibration and go back to the menu LF3)
↵M+	
W1	• Place 1/3 of the maximum weight on the plate and press Z/T→ ON to calibrate 2/3 th the capacity. (press the key U to exit from the calibration and go back to the menu LF3)
↵M+	
W2	• Place 2/3 of the maximum weight on the plate and press Z/T→ ON to calibrate 2/3 th the capacity.(press the key U to exit from the calibration and go back to the menu LF3)
↵M+	
W3	• Place the maximum weight on the plate and press the key Z/T→ ON to calibrate the full capacity. (pressthe key U to exit from the calibration and go back to the menu LF3)
↵M+	
W4	•Press the key ↵M+ to complete the lineal calibration. (press the key U to exit from the calibration and go back to the menu LF3)
↵M+	
LF3	• Use the keys ←MR MC , Z/T→ ON and then the key ↵M+ to continue with other adjustments and press the key U to exit from the menu and the scale will begin again automatically.
↵M+	

SPEED OF THE AD CONVERTER LF 4

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
LF4	• Press the key M+ to start or the key U to exit from the menu and the scale is going to begin again automatically.
M+	
SPEED 1	• Use the key N/G↑ and then the key M+ to select the speed of the AD converter (press the key U to exit from the configuration and go back to the menu LF4)
M+	
LF 4	• Use the keys ←MR MC, and Z/T ON→ then M+ to continue with the other adjustment and press the key U to exit from the menu and the scale will start again automatically.

BLINF

DISPLAY	DESCRIPTION AND SEQUENCE OF USE
LF 5	ZP 0OFF ZP 1 One division will not show being at zero ZP 2Two division will not show being at zero ZP 3Three divisions will not show being at zero ZP 4Four divisions will not show being at zero ZP 5Five 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

DISPLAY	DESCRIPTION AND SEQUENCE OF USE
LF 5	•Press the key M+ to start or the key M+ to exit from the menu and the scale will start again automatically.
M+	
ZP 0	•Use the key N/G↑ and the key M+ to select how many divisions will show when in zero (press ESCto exit from the configuration and go back to the menu LF4)
M+	
LF 5	•Use the keys ←MR MC, and Z/T ON→ then the key M+ 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
LF 6 	nonEVersion 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 LF 7

*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
LF 7 	• Press the key M+ to continue or the key U to exit from the menu and the scale will start again automatically.
-00-	• The screen is going to show the number of pre-calibration during one second.
9.8035 	• Press the key M+ to continue.
9.8035 	• Use the keys MR MC , Z/T ON and N/G , and then the key M+ to introduce the value of gravity (pr ess ESC to exit from the configuration and go back to the menu LF7)

INITIAL ZERO LF 8

SEtZ Yresets of the point of zero every time that the scale is begun again.

SEtZ nresets of the point zero OFF

DISPLAY	DESCRIPTION AND SEQUENCE OF USE
LF 8 	• Press the key M+ to start or the key U to exit from the menu and the scale will start again automatically.
SetZ Y 	• Use the key N/G and then the key M+ to choose the mode of zero initial (press the key ...to exit from the configuration and go back to the menu LF8)
LF 8	• Use the keys MR MC and then the key Z/T ON M+ to continue with other adjustments to press the key U to exit from the menu and the scale will start again automatically.

11. ERROR MESSAGES

MESSAGE	DESCRIPTION
Err H	Initial zero too high (over 10% of max. cap).
Z Err	Initial zero too high (over 10% of max. cap).
Err 1	Initial zero too high (approved model).
Err L	Initial zero too low (less than 10% of max. cap).
Err 2	Initial zero too low (approved model).
Err N	Unstable internal value.
E4	Internal code is not stable.
OL	Overloading
O Err	Overloading
hhhhhh	Overloading
E3	Linearity correcting not well or linearity correcting cancel.
LLLLLL	Weight is too low.
E5	Internal code is too low.
Err4	E2ROM abnormal.
------	Total price is more than 999999.
B Err	Battery volume is too low.
Err 10	Calibration failure, check the loadcell.

12. 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, HiWEIGH , 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.


VALUE EACH GRAM
HiWEIGH