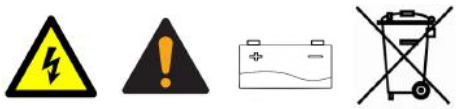
VALUE EACH GRAM
HiWEIGH

COUNTING SCALE
CCX CSX
User Manual

INDEX English



! Please recharge the scale on time to protect the battery, and replace it if it runs out of life.
! The battery needs to be recharged every 3 months if it's not used for long time.
! The replaced battery must be handled correctly.
! Please use the scale on the stable table or platform.
! Please don't overload the scale

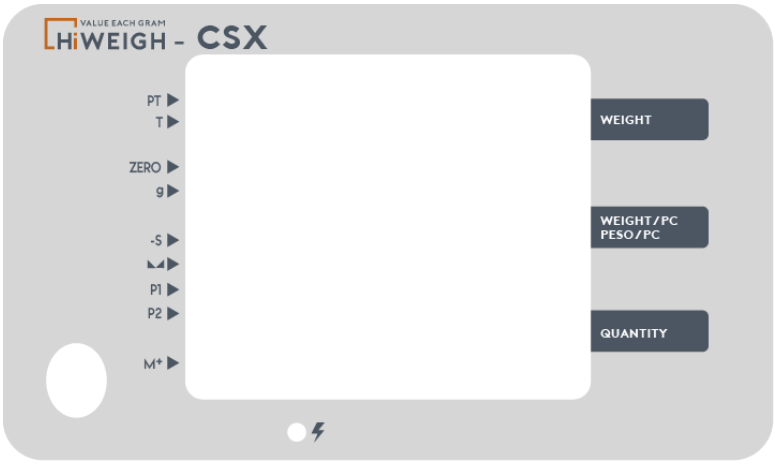
1. MAIN SPECIFICATIONS

Model	CCX3|CSX3 CCS3	CCX6 |CSX6 CSS6	CCX15|CSX15 CSS15	CCX30 |CSX30 CSS30
Capacity	3kg	6kg	15kg	30kg
Min.	20e			
Readability	0.1g	0.2g	0.5g	1.0g
Repeatability	0.2g	0.5g	1g	2g
Battery	6V4Ah			
Accuracy	Class III			
Pan Size	CCX|CSX-220x310mm			

Working Temperature :	-5-+35℃
Storage Temperature:	-25-+ 50℃
Power:	100-240V 50/60Hz – DC 12V/1Ah 12W
Net Weight:	3.8kg
Power Consumption:	12mA (backlight off)
	36mA (backlight on)
	48mA (backlight on and RS232 connected)
Battery working time:	320hrs (backlight off)

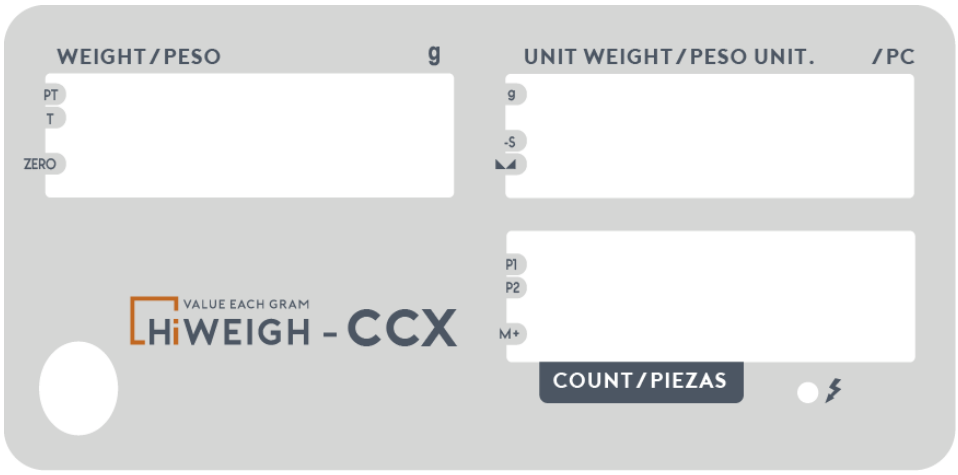
2. DISPLAY

Display of CSX



Keypad of CSX

Display of CCX



Keypad of CCX

KEYS FUNCTION

To turn off the scale, keep the OFF key pressed until the display shows "Off" for 2 seconds.

Press this key to turn on the balance.

To select the weighing unit.

Function 1: To reset the weight to 0, but the displayed weight value has to be less than ± 2% of maximum capacity.

Function 2: To move one space to the left or downward in setup mode.

Function 1: To subtract the container weight.

Function 2: To move one space to the right or upward in setup mode.

To access the counting function.

To access the function of limits.

Unit weight memory store, input the sample weight, press this key firstly and then press Memory key (M01-M20 (M40 for CSX)), and the weight value stored.

To access the counting function.

Memory recover function.

Accumulation Key.

Clear Key.

Choose PLU Number keys.

STANDARD CALIBRATION

Press the 

key and the 

key to start Standard Calibrations.

ECF-1 Weight Calibration (Zero and Span).
ECF-2 Zero Calibration.
ECF-3 SPAN Calibration.

ECF-1 Weight Calibration

1. Press the key 

to start and go to the ECF-1mode, and press the 

key to exit menu and back to weighing mode.
2. Press the 

key.
3. Use 0 ~ 9 keys to enter the weight to be calibrated and confirm with 

.
4. Place the required weight mass onto the scale and press the 

key.
5. Calibration procedure completed and the scale will return back to weighing mode automatically.

ECF-2 Zero Calibration

1. Press the M+ key to start and go to the ECF-2 mode, and press the CE key to exit menu and back to weighing mode.
2. Press the M+ key to set the zero weight.
3. Calibration procedure completed and the scale will return back to weighing mode automatically.

ECF-3 SPAN Calibration

1. Press the M+ key to start and go to the ECF-3 mode, and press the CE key to exit menu and back to weighing mode.
2. Use 0 ~ 9 keys to enter the weight to be calibrated and confirm with M+ .
3. Place the required weight mass onto the scale and press the M+ key.
4. Calibration procedure completed and the scale will return back to weighing mode automatically.

COUNTING PIECES FUNCTION

Piece weight setup

Place the object on the weighing pan, use 0-9 number keys and decimal (.) key to introduce the unit weight. Weight window displays the total weight, piece weight windows shows unit weight and total count windows displays the total pieces.

Number of pieces setup

Use the 0-9 numbers keys to input the desired sample quantity, when the display weights shows the weight, press the key, the piece weight window shows the unit weight and total count window displays the total pieces number.

Limits function

Place the items to be counted on the weighing pan, use the 0-9 number keys to introduce the number of pieces loaded and press the key. Once the balance memorizes the sample, place the maximum weight on the pan (high limit value), press the key to confirm the high limit value.

Remove the weight from the pan, from this moment, the balance will beep and will show the message "HI" when the load will excess the preset high value.

FUNCTIONS SETUP

To access the configuration functions, press the keys and .

UF-1 Internal Value / Display Battery Voltage

1. Press the key to display the following internal values:
   - The Weight / Peso display shows internal value of the span.
   - The Unit Weight / Peso Unit display shows the current battery voltage.
   - The Count parts / Piezas display shows the internal value (zero).
2. Press the key to exit menu.

UF-2 Piece Weight Auto-average

AAVG 0: Disable
AAVG 1: Enable

1. Press the M+ key to start.
2. Use 0 and 1 keys to enable or disable auto-average function.
3. Press the M+ key to confirm.
4. Press the CE key to exit.

UF-3 Auto Power-off

Modes:

- AoFF 00: Auto Power-off disable.
- AoFF 01: The scale turns off automatically in 1 minute when the scale is not in operation.
- AoFF 02: The scale turns off automatically in 2 minutes when the scale is not in operation.
- oFF 99: The scale turns off automatically in 99 minutes when the scale is not in operation.

1. Press the M+ key to access the programming Auto Power-off
2. Use 0 ~ 9 keys to enter auto power-off time.
3. Press the M+ key to confirm.
4. To exit and return back to weighing mode, press the CE key.

UF-4 Backlight

Modes:

- Lit 2: Backlight off.
- Lit 0: Auto light-up.
- Lit 1: Backlight on.

Factory default: Lit 0 (Auto light-up).

1. Press the v key to access display backlight programming.
2. Use 0 ~ 2 key to select backlight mode.
3. Press the M+ to confirm.
4. To exit and return back to the weighing mode, press the CE key.

UF-5 Accumulation

Modes:

ACCU 0 0
A B

A: 0. Stable required
1. Stable not required

B: 0. The weight has to return to zero to accept next accumulation.
1. The weight does not have to return to zero to accept next accumulation.
2. No tare weight to accept next accumulation.

Factory default: ACCU00 (Stable required and the weight has to return to zero).

UF-6 RS232 Output

232 0 0
A B

A: 0. Baud rate 1200
1. Baud rate 2400
2. Baud rate 4800
3. Baud rate 9600
4. Baud rate 19200

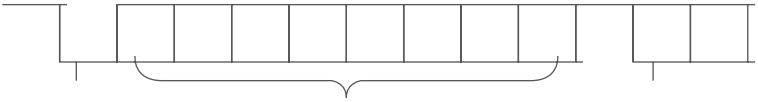
B: 0. RS232 output disable
1. Manual output – Format 2
2. Stable output – Format 1
3. Stream output – Format 1

Communication Protocol

UART signal of EIA-RS232C

Format:

1. Serial output: 1200/2400/4800/9600719200/38400 BPS.
2. Data bits: 8 BITS.
3. Parity bits: None.
4. Stop bits: 1 BIT.



Format 1 (232 1 – 3)

HEAD 1 (2 BYTES)	HEAD 2 (2 BYTES)
OL – Over Load	
ST – Stable	NT – Net Weight
US – Unstable	GS – Gross Weight

Fixed 20 BYTES ASCII

Output examples

1. Example +0.876 kg stable net weight:

S	T	,	N	T	,	+	0	0	0	.	8	7	6	k	g	0D	0A

2. Example -1.568 lb unstable gross weight:

U	S	,	G	S	,	-	0	0	1	.	5	6	8	l	b	0D	0A

Format 2 (232 x1)

Press the M+ key to output.

I	T	E									1				
G	W		+			1	1	0	0	.	0				g
T	W		+				1	0	0	.	0				g
P	T	W	+						0	.	0				g
	W		+			1	0	0	0	.	0				g
A	P	W			1	.	0	0	0	0	0				g
Q	T	Y						1	0	0	0		p	c	s

I	T	E									2				
G	W		+			1	1	0	0	.	0				g
T	W		+						0	.	0				g
P	T	W	+				1	0	0	.	0				g
N	W		+			1	0	0	0	.	0				g
A	P	W			1	.	0	0	0	0	0				g
Q	T	Y						1	0	0	0		p	c	s

Press the M+ key for 3 seconds key to output.

=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=
T	.	I									2				
T	.	W				2	0	0	0	.	0				g
T	.	Q						2	0	0	0		p	c	s

1. Press the M+ key to access programming functions.
2. Use 0 ~ 4 keys to enter RS232 output formats.
3. Press the M+ key to confirm.
4. To exit and return back to weighing mode, press the CE key.

UF-7 ADC Update Rate

SPEEd 0	Low speed 7.5 hz.
SPEEd 1	Standard speed 15 hz.
SPEEd 2	High speed 30 hz.

Factory speed: SPEEd 0

1. Press the M+ key to access programming functions.
2. Use 0 ~ 2 keys to enter ADC speed.
3. Press the M+ key to confirm.
4. To exit and return back to weighing mode, press the CE key.

UF-8 Display Condition at Zero

ZP 0	Off.
ZP 1	One division not to display at zero.
ZP 2	Two division not to display at zero.
ZP 3	Three division not to display at zero.
ZP 4	Four division not to display at zero.
ZP 5	Five division not to display at zero.

Factory default: ZP 1

1. Press the M+ key to access programming functions.
2. Use 0 ~ 5 keys to enter condition at zero.
3. Press the M+ key to confirm.
4. To exit and return back to weighing mode, press the CE key.

SAVE AND DELETE PRODUCT MEMORIES (PLU)

1. Place the sample on the weighing plate.
2. Introduce the number of pieces placed on the plate using number keys.
3. Press (PLU) to calculate unit weight.
4. Press (PLU), then press the key where you want to save the product memory (10 direct memories are available (M1 to M10). Memory will be saved.

To use the other 10 direct memories (M11 to M20) press (P1 P2) to switch to PLU2 before sampling. Then follow the same routine as explained before.

To delete a PLU memory, first press on the key you want to delete (M1 to M20), then press (PLU) and (→T←) now press again (PLU) .

GUARANTEE

This scale is guaranteed for one year from the delivery date. The guarantee covers any fabrication defect of the material.

During this period **GRAM PRECISION, SL**, covers the manpower and the spare parts for the reparation of the scale.

This guarantee does not cover the failures caused by an inappropriate use or overcharge.

The guarantee does not cover the freight cost (transport) necessary to repair the scale.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