



CC804

Coin Counting Scale



User Instructions

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1 General Information and Warnings

1.1 About this Manual

This manual is divided into chapters by the chapter number and the large text at the top of a page. Subsections are labeled as shown by the 1 and 1.1 headings shown above. The names of the chapter and the next subsection level appear at the top of alternating pages of the manual to remind you of where you are in the manual. The manual name and page numbers appear at the bottom of the pages.

1.1.1 Text Conventions

The keys used to interface with the CC804 are located on the front panel of the indicator. The keystrokes are shown in **BOLD** encased between brackets. (e.g. **[ZERO]**)

Displayed messages appear in seven segment display type and reflect the case of the displayed message. (e.g. spl.__)

1.1.2 Special Messages

Examples of special messages you will see in this manual are defined below. The signal words have specific meanings to alert you to additional information or the relative level of hazard.



NOTE: This is a Note symbol. Notes give additional and important information, hints and tips that help you to use your product.

1.2 Warnings

- Read all operating instructions carefully before use.
- If batteries are being used, make sure they are inserted correctly.
- Avoid lengthy exposure to extreme heat or cold. Your scale works best when operated at normal room temperature. Always allow the scale to acclimate to a normal room temperature before use.
- Allow sufficient warm up time. Turn the scale on and wait for a few minutes if possible. This will give the internal components a chance to stabilize before weighing.
- These electronic scales are precision instruments. Do not operate near an in-use cell phone, radio, computer or other electronic device. These devices emit RF and can cause unstable scale readings.
- Avoid using in heavy vibration and airflow conditions.
- Please put on and take off object(s) gently in the process of weighing.

1.3 Specifications

- Capacity: 2000.0g×0.5g
- Weight against the maximum accumulation value: 1677721.5g.
 - When weight exceeds 19999.9g, the data will be displayed as higher and lower alternating segments. For example: 123456.7g. The scale will display "H.123g" and "L456.7g" alternately.
- Maximum accumulated counting data: 1677721.5g.
 - When accumulated data is over 19999.9g, the data will be displayed as higher and lower alternating segments. For example: 123456.7g. The scale will display "H.123g" and "L456.7g" alternately.
- Power supply: 9VDC, 600mA with center positive AC adaptor or 4 x "AA" size cells.
- Max display weight: 2004.5g.
- Operating current: ≤200mA.
- Scale will display "Error" when the accumulation value exceeds 16777215 (except decimal)

1.4 Routine Maintenance



IMPORTANT: *This equipment must be routinely checked for proper operation and calibration. Application and usage will determine the frequency of calibration required for safe operation.*

Always turn off the machine and isolate from the power supply before starting any routine maintenance to avoid the possibility of electric shock.

1.5 Sharp Objects

Do not use sharp objects such as screwdrivers or long fingernails to operate the keys.

1.6 Cleaning the Scale

Table 1.1 Cleaning DOs and DON'Ts



DO	DO NOT
Wipe down the outside with a clean cloth.	Attempt to clean the inside of the scale
	Use harsh abrasives, solvents, scouring cleaners or alkaline cleaning solutions
	Spray any liquid directly on the scale

1.7 CE Certification

For CE Certification, please refer to www.brecknellscales.co.uk

2 Using the Scale

Follow the instructions in this chapter to use the CC804 Coin Counting Scale.

2.1 Front Panel

The front panel incorporates the display and keypad.

The annunciators used are incorporated in the display. An arrow will indicate which mode is active.

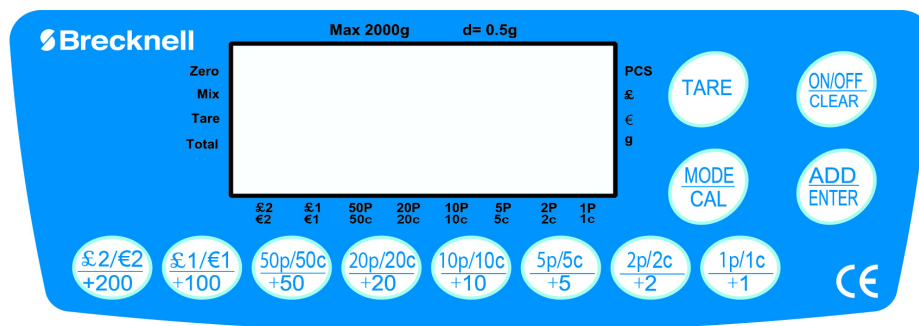


Figure 2.1 CC804 Keypad and Display







Table 2.1 Display Annunciators and Definitions

LCD Annunciator	Description
Zero	Better known as the "Center of Zero" annunciator. It is lit when the scale is at the zero point and the gross weight is 0.
Mix	This annunciator will be displayed under coin quantity counting and coin value counting status (namely the unit is PCS, £, or €). The scale can recognize whether there are different types of coins being mixed according to the current weight, current coin type, weight and tolerance. However, there are some circumstances when the scale will not be able to recognize different types: a) The single weight of one kind of coin is the integral multiple of another coin's single weight. For example, take count of 1p coin (single weight =3.6g) and there is one 2p (single weight=7.1g) or 50p (single weight=8.0g) different type coin mixed in. The scale can only recognize that 1p coin quantity has increased 2pcs or 3pcs, but cannot recognize whether it is 2p or 50p coin that mixed in. b) Even if the single weight of the mixed coin is not the integral multiple of the currently chosen coin weight, the scale cannot make recognition also due to the weight tolerance. This situation can be improved by reducing tolerance. In summary, "Mix" indicating signs can be only taken as a reference. In the same way, for PCS/£/€ counting, if there are other type coins mixed in, the reliability will reduce greatly.
Tare	Displayed when the Tare weight is not zero.
PCS	Indicates coin quantity counting mode and normal counting mode. In coin quantity counting mode, the coin value (£2..... 1p) is on at the same time.

LCD Annunciator	Description
£	When the £ annunciator is on and one of the coin annunciators is also shown, the scale is in £ coin counting mode.
€	When the € annunciator is on and one of the coin annunciators is also shown, the scale is in € coin counting mode.
g	Indicates the current unit of measure is grams.
Total	Coin weight accumulation when g and Total are on. Coin value accumulation when £ and Total are on. This is the total in £ (Pounds). Coin value accumulation when £ is off and Total are on. This is the total in € (Euros).
£2, £1,50P,20P,10P,5P,2P,1P €2, €1, 50c, 20c, 10c, 5c, 2c, 1c	Indicates the currently chosen coin (£2.....1p or €2...1c). The annunciator will indicate what coin value is being weighed.

2.2 Key Functions

Table 2.2 Keys and Functions

Key	Mode(s)	Function
	Count Mode Weigh Mode	Press and hold for 5 seconds to turn off the scale Press after the scale displays accumulation value. The coin value accumulation will be cleared and exit accumulation mode.
	Count Mode Weigh Mode	Press and hold for 5 seconds to display the coin value accumulation. Press any key (except [ON/OFF]) to return. Press to accumulate the coin value. The value will be displayed for 3 seconds and return to the working mode.
	Count Mode Weigh Mode	Press and hold for 5 seconds to set the zero point after the scale is stable. Zero range $\pm 10\%$ FS. Press to tare the weight. This function can be activated only when the scale is in stable mode and the gross weight is not negative value.
	Count Mode Weigh Mode	Press to select a mode. A mode annunciator will be lit designating the working mode. Refer to Table 2.1 for annunciators and definitions.
 	Count Mode	Press one of the £2...1p / €2...1c keys to choose the type of coins to be counted, value or to add.

2.3 Methods of Operation

There are four main working modes for this scale:

- Counting mode
- Weighing mode
- Calibration mode
- Inner code checking mode

Counting mode can be divided into coin number counting mode, coin value counting mode and normal objects counting.

2.4 Counting Mode



NOTE: While in coin number or coin value counting mode, if coin types are mixed in, the Mix annunciator will flash 5 times and then stay on.

2.4.1 Coin Number Counting Mode

The process for counting coins is the same for £ or €. Refer to the tables below for appropriate piece weights and maximum counts.

1. Press the **[MODE/CAL]** key until the PCS annunciator is selected.
2. Use one of the keys below to select the coin value.



3. Place the coins on the platter to count. The number of coins on the platter will be displayed.

Table 2.3 Coin Piece Weight (£) and Max Count

Coin	Piece Weight (g)	Max Count (£)
1p	3.56	5.62
2p	7.12	5.62
5p	3.25	30.75
10p	6.50	30.80
20p	5.00	80.00
50p	8.00	125.00
£1	8.75	228.00
£2	12.00	334.00

Table 2.4 Coin Piece Weight (€) and Max Count

Coin	Piece Weight (g)	Max Count (€)
1c	2.30	8.70
5c	3.92	25.50
10c	4.10	48.80
20c	5.74	69.60
50c	7.80	128.00
€1	7.50	266.00
€2	8.50	470.00

2.4.2 Coin Monetary Value Counting Mode (£)

1. Press the **[MODE/CAL]** key until the £ annunciator is selected.
2. Use one of the following keys **[£2/+200]**, **[£1/+100]**, **[50p/+50]**, **[20p/+20]**, **[10p/+10]**, **[5p/+5]**, **[2p/+2]** or **[1p/+1]** to select the coin value.
3. Place the coins on the platter to view the value. The value will be displayed according to denomination.

2.4.3 Coin Monetary Value Counting Mode (€)

1. Press the **[MODE/CAL]** key until the € annunciator is selected.
2. Use one of the following keys **[€2/+200]**, **[€1/+100]**, **[50c/+50]**, **[20c/+20]**, **[10c/+10]**, **[5c/+5]**, **[2c/+2]** or **[1c/+1]** to select the coin value.
3. Place the Euro coins on the platter to view the value. The value will be displayed according to denomination.

2.4.4 Normal Counting Mode

Sample Coins or Other Pieces

1. From the Weigh Mode, press the **[MODE/CAL]** key. The PCS annunciator will be active and spl.__ will be displayed.
2. Place samples to be counted on the platter.
3. Press the **[ADD/ENTER]** key. The __ of SPL.__ will flash signifying an entry is needed.
4. When the scale reading is stable, 0 PC will be displayed. The 0 will flash. Use one of the following keys **[£2/+200]**, **[£1/+100]**, **[50p/+50]**, **[20p/+20]**, **[10p/+10]**, **[5p/+5]**, **[2p/+2]** or **[1p/+1]** to enter the sample quantity on platter. Any combination of keys can be used to enter the desired quantity (1-1999).
 - 4a. For example, if the desired sample quantity is 60, use the **[10p/+10]** to add a quantity of 10 and the **[50p/+50]** to add a quantity of 50, totaling 60.
 - 4b. Use the **[ON/OFF/CLEAR]** key to clear any entry.

5. Press the **[ADD/ENTER]** key to confirm. Continue to count pieces by adding them to the scale or go to step 6.
6. Press **[MODE/CAL]** to enter exit.



NOTE: The weight of sample must be over 0.

The scale must be stable before the sample quantity can be keyed in.

The sample quantity must be over 0.

The piece weight must be over 0.05g.

If the piece weight is less than 0.1g, the accuracy will reduce greatly.

The larger the sample, the more accurate the count will be.

2.5 Weigh Mode

1. Press the **[MODE/CAL]** key until the g annunciator is active.
2. Place items to be weighed on the platter.

2.6 Calibration Mode

Follow the steps below to calibrate the scale.

1. Turn the scale off by holding the **[ON/OFF]** key until the scale turns off.
2. Press **[ON/OFF]** key and then press and hold the **[MODE/CAL]** key while the scale is in power up mode until CAL-0 is displayed.
3. Press the **[ADD/ENTER]** key to confirm and go to next the step.
4. When CAL-0 is displayed, press the **[ADD/ENTER]** key (be sure no weight is on the scale). 0 of CAL-0 will flash. At this time, the scale is reading stable calibration zero point. After achieving a zero reference, the scale will go to next step.
5. When CAL-F is displayed, put a 2 kg weight on the scale and press the **[ADD/ENTER]** key. F of CAL-F will flash. At this time, scale is reading the stable signal of full capacity. After reading, the scale will go to next step.
6. When CAL-0 is displayed again, remove the 2 kg weight from scale pan and press the **[ADD/ENTER]** key. 0 of CAL-0 will flash again. This means the scale has returned to a stable calibration zero point.
- 6a. If scale calibration is working properly, the scale will go to coin number counting mode after auto-initialization.
7. If scale is not calibrated properly, the screen will display CAL.Er and go back to step 1 for re-calibration.

8. Press the **[ON/OFF]** key to exit the calibration mode.

2.7 Inner Code Checking Mode

1. Press and hold the **[ON/OFF]** and **[ADD/ENTER]** keys while the scale is in power up mode until Code is displayed.
2. Press the **[TARE]** key to display the filtered and non-filtered A/D data. The Total annunciator will be lit for filtered A/D data.
3. Press the **[MODE/CAL]** key to display weighing data and input voltage. Working voltage is displayed by $U_{\times.\times\times}$. It is best if the voltage is between 4.6V - 8.6V.
4. Press the **[ON/OFF]** key to exit the code checking mode and return to the counting mode.



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