GMC-306/315/330 Digital Counting Scale
Operation Manual

Version 2.1

Gamma Scale

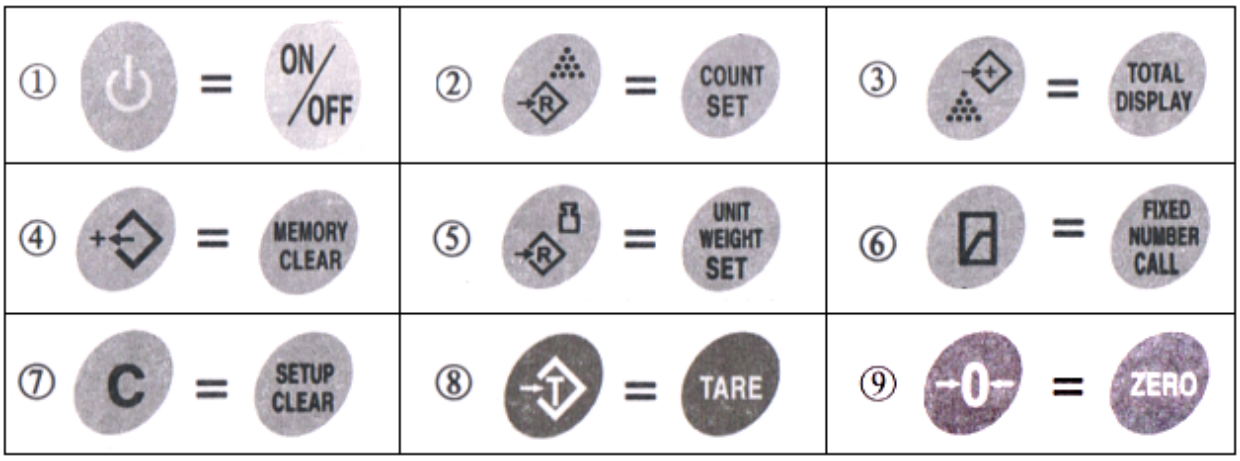
Tel: (905) 455-8333
Fax: (905) 455-0658
E-mail: info@gammascale.com
Website: www.gammascale.com

CONTENTS

1. Parameters and Specification

1.1 Accuracy class: OIML III
1.2 Internal resolution ration: 500000
1.3 External resolution ration: 30000
1.4 Relative humidity: <= 90% RH (no condensation)
1.5 Display: 6 digit 0.56-inches LED
1.6 Power supply: AC adaptor of 9V 800mA, C+;
DC Option: 6V 1.2Ah rechargeable battery
1.7 RS232C Output Baud rate: 1200 (optional)
1.8 Platter size: 300 x 250(mm)
1.9 Operation temperature: -10°C ~ +40°C
1.10 Capacity: 6kg, 15kg, 30kg
1.11 Units: kg/lbs switchable

2. Operation Keys and Functions



2.1 ON / OFF Key

a. Used when switching on or off the power of PCB, see Item 3.1 for details;
b. Used when simple rectifying.

2.2 COUNT SET

When the weight of the goods is not known, used to confirm the numbers of sampling, see Item 3.6 for details.

2.3 TOTAL DISPLAY

Used for displaying the accumulated times and numbers, see 3.8.2 for details.

2.4 MEMORY CLEAR

Cooperating with other keys to clear accumulated times and numbers, see Item 3.8.3 for details.

2.5 UNIT WEIGHT SET

When the weight of the goods is known, used to confirm the input weight, see Item 3.5 for details.

2.6 FIXED NUMBER CALL

a. When it needs the scale to warn at a set number, the key is used to set the warning number, see Item 3.4.1 for details;

b. Cooperating with other keys to cancel the warning function, see Item 3.4.2 for details.

2.7 SETUP CLEAR

Used to clear the input value that is not confirmed, see item 3.7 for details.

2.8 TARE

Used to deduct the weight on the platform as tare, see Item 3.3 for details.

2.9 ZERO

Make the scale return to zero in the allowed range.

3. Operation Procedure

3.1 Power on and off

3.1.1 Adjust its Support feet and make sure that life platform is level. It must be used in non-vibration condition.

3.1.2 Insert adapter and turn on the power supply switch, the scale will execute self-checking the strokes step by step. If zero position is normal, “0.000” will be displayed.

3.2 Zero setting operating

When the weighing is under 2% full capacity, presses ZERO, all windows display 0.

3.3 Tare

When the goods are placed on scale platform and it the weight is regarded as tare to deduct. Press TARE, the window will display 0.

3.4 Fixed number call

3.4.1 If you need to set the fixed number call, the operating steps are as follows: input the fixed number, then press FIXED NUMBER CALL key. If the count on the platter is more than the set number, the scale will give our beep sound. If the unit weight window displays "ERR NO", it means the input value is wrong (for example, if it has a decimal point).

3.4.2 To cancel the set fixed number call, the operating steps are as follows: Press 0, and then press FIXED NUMBER CALL.

3.5 Counting for Known unit weight

If the unit Wright of goods is already known, directly input the unit weight value by pressing digit keys and press UNIT WEIGHT SET to confirm it, at this time the weigh value will be displayed in its unit weight window and you can count the goods.

3.6 Counting for unknown unit weight

If the unit weight of the goods isn't known, you can sample first, the steps are as follows:

3.6.1 Place certain amount of the goods on the platform, the weight value will be displayed in its weight window.

Note: When sampling goods, you must fully pay attention to the weight of the goods and unit error. You should generally sample more goods, thus the average value limit obtained will be comparatively accurate.

3.6.2 Press the digit keys to input the count of sampling; the value will be displayed in its unit weight window.

3.6.3 Press COUNT SET to set it, at this time, the unit weight counted is displayed in its unit weight window and the sampled Count is displayed in its count window.

Now the operating for the Unit Wright input is finished. If file unit weight window displays Error, it means the input value is wrong (For example, if it has a decimal point).

3.6.4 Place the goods counted on the platform, at this moment the count of goods will be displayed in its count window.

Note: In the way of sampling as 3.5 and 3.6, if the unit weight window displays I0SPI, it means the unit weight is too light. Every sample weight should be more than or equal to 0.2d.

3.7 Clearing of unconfirmed input digit (unit weight of sampling or count)

There are two ways for clearing the input value:
3.7.1 You can directly press SETEUP CLEAR to clear the value you have just input.
3.7.2 Input new value in five seconds after the last value is input and the original setup will automatically be changed.

Note: After inputting the digits, you should press the corresponding key as FIXED NUMBER CALL, UNIT WEIGHT SET, COUNT SET or SET UP CLEAR to confirm, or all the key operation will not he effective.

3.8 Operation concerned accumulation

3.8.1 This counting scale has the latest preventing fraud function (i.e. the display must return to zero after an accumulation and before going to next accumulation). Under the situation that the unit weight is set or when the unit weight is sampled, when 0 is displayed in the weight window, place the goods weighed on the platform.

After awaiting the weight to be stable and the "STA" to be on or corresponding unit cursor appears, press "+", the accumulative total count will be displayed in its count window. When the count is more than 99999, FULL will be displayed. Three seconds later, it will return to normal weighing state and the current accumulation is not effective.
3.8.2 Accumulation display: Press TOTAL DISPLAY, the weight window displays TOTAL will be displayed, and the unit weight window displays the accumulating times and the accumulated count "XXXXX" will be displayed in its count window, if press TOTAL DISPLAY again, it will return to normal weighing state.
3.8.3 Accumulation clearing (including times and value)
Under normal counting state, press TOTAL DISPLAY, and then press MEMORY CLEAR. ADD will be off or
'M+' cursor disappears, at this moment the accumulated times and count will be cleared.

Note: The accumulating value and times will be automatically cleared when it is turned off.

4. RS-232C Output (optional)

4.1 RS-232C interface adopts the D-type 9-pin or 3-core metal plug.
4.2. Serial data (ASC II) is output by Mode I of MCS-51, the format is as the following:
STX: State A / State B / State C / Display value / Tare value / Total number / Enter
STX: Start character, 02H
State A: Control character for decimal point (D7 refers to verification bit)

D7	D6	D5	D4	D3	D2	IA	DO	Decimal point position
	0	1	0	1	0	1	0	Without decimal point

0	1	0	I	0	1	I	I -digit decimal	0.0
0	1	0	I	I	0	0	2-digit decimal	0.00
0	1	0	1	1	0	1	3-digit decimal	0.000
0	1	0	1	1	1	0	4-digit decimal	0.0000

State B: Unit and weighing mode control character (D7 refers to verification bit)
D7 Verification bit
D6 0
D5 1
D4 1
D3 Dynamic mark bit D3--0, stability; D3=1, non-stability (dynamic)
D2 Overload mark bit D2--O, normality; D2=1, overload
D1 Positive and negative mark bit DIA, positive number: D1=1, negative number
DO, Gross weight and net weight mark bit DOA, gross weight; D0=1, net weight
State C: Blank space

5. Use Guide

5.1 Do not use under the environment of heavy dusty and high vibration.
5.2 Place the article in the center of the platter as far as possible.
5.3 Never use high corrosive solvents to clean it.
5.4 Do not weigh overload, weight (tare included) can't exceed its Max. Capacity plus 9d ("d" is division value). If the weight exceeds this value, the indicator will display as "FULL", and may possibly give out beep sound.
5.5 Do not place article on platter for a long period of time and never bump platter in a sudden, otherwise, the load cell may be damaged.
5.6 Be sure that charging rechargeable battery in time if your scale has one.
5.7 Don't disassemble it without authorization.
5.8 If the display doesn't change during operation, turn off the switch of battery and pull out the adaptor plug, then turn on the scale again.
5.9 If something is wrong, immediately turn off the switch of battery (or storage battery) and pull out the adaptor plug. Non-professional staff can't fix it without authorization. Contact our sales agent in local area.
5.10 To recalibrate the scale, do it after warmed up for 30minutes.

6. Battery Maintenance

If using the rechargeable battery, please recharge it more often. Otherwise work with attached adaptor.

<END>