Precision counting Scale

Model NO. CTS-3000

CTS-6000

Operation Manual

CTS-3000/6000-en V5.0-2006

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calibration is end. (External calibration will not work when the error is outside the range of ±10% of Max. Capacity).

(XVI) Recharging the battery

When the battery voltage is low, the LOW POWER indicator will be shown. Please turn the scale off and then fully recharge it, otherwise the scale will automatically turn off. When recharging, a yellow LED will light up on the panel. It will turn RED when fully charged. It takes approximately **12 hours** to fully charge the battery. To ensure the battery voltage is in full, we recommend charging an extra 3~4 hours.

I. Overview

The CTS series electronic counting scale uses high precision sensors and the latest Microchip technology. It is specially designed and manufactured for accurate weighing and counting functions. This manual is a guide and subject to change or correction. Please check our website for the most recent operation manual or notes.

II. Precautions Before Using The Scale

1. Do not let the scale get wet and do not place it in an environment with extreme temperature or humidity.
2. Do not shock the scale and do not exceed the capacity. *Permanent damage can occur*
3. If the power is low or the scale automatically power off, please charge the battery for a full 12 hours before use. Incomplete charging can damage the battery.
4. Before using the scale, place it on a stable platform and adjust its feet to make the scale level.
5. Working conditions:
   1) The operating temperature should be: 0℃~40℃
   2) Power supply: AC 220V±10% or DC6V1.5A.h NiH battery.

III. Keypad Functions

0 ~ **9** : Numeric keys

• : Decimal point key.


: If there is a minor weight displayed, without anything on the pan; hit the zero key to clear the display.


: Use this key to subtract the container's weight. Indicate that the current weight reading is net weight.


: This key is used for total count accumulation.


: Use this key to clear the total count accumulation.


: Use this key to eliminate the count check entries.


: Use this key for checking the number entry confirmation.

C : Use this key to clear the readings entered.


: Used when manually keying in the unit weight.


: Sample Key . Used when keying in a sample amount.

IV. Operations

(I) Power on-

Remove all objects from the tray; push the switch to **" ON"** to turn the scale ON. The scale will self test and then go to

G=GROSS N=NET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
HEAD						DATA								UNIT		CR	
G/N	.	W	.		:	+/-								(K)	g	CR	LF

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
HELD						DATA								UNIT					CR	
U	.	W	.		:	+								g	/	p	c	s	CR	LF

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
HELD						DATA								UNIT			CR	
T	o	t	a	l	:	+								p	c	s	CR	LF

EXAMPLE:

G.W. : + 100g

U.W. : + 0.2g/pcs

T0tal : + 500pcs

(XV) External Calibration

When the scale does not read accurately, you may calibrate it with weight. Turn the scale on; press and hold  until the end of self-test.

It will show "**CAL**". Press  to show " 0" ; place a weight (2/3 of the Max. Capacity is recommended) on the tray; input the value of the weight via numeric keys. The unit is kg. (Ex. The Max . Capacity is 3kg ; the weight should be 2kg ; then enter 2). after stable, press  to confirm the entered . Now the

(turn auto-average on). Press [T] key to change, press [0] to confirm.

(XIII) Setting backlight

Turn the scale ON, Press and hold [1] until the end of the self-test, the display will show "AUTO"(AUTO backlight) or "OFF"(disable backlight) or "ON" (Backlight is ever lighting) Press [T] key to alternate, press [0] to confirm.

(XIV) Setting of communication (optional)

Turn the scale ON, press and hold [2] unitl the end of the self-test, it will display the Baud Rate preset, select one (2400、4800 or 9600) by pressing [T] confirm it by pressing [0]. Enter the selection of communication modes, select one (ST—output when the reading is stable, Co—continue output). Press [T] to change and press [0] to confirm.

RS-232 Communication format

Baud Rate : 2400、4800、9600

Data Bit : 8

Parity : N(None)

Stop Bit : 1

Code : ASCII

Data Format :

normal weighing mode.

(II) Power off-

Push the switch to " **OFF**" to turn the scale OFF.

(III) Zero function -

Zero range : ± 2% of max. capacity

Press [0] key to return the display to zero in case there is any zero drifting with nothing on the tray.

(IV) Tare function -

Place the container on the pan, press [T] key to subtract the container's weight. When the displayed number is stable, [T] will be shown. Remove the container, the display will show the gross weight companied by a negative sign. Press the Tare key again to cancel Tare mode.

(V) Unit weight setting

A known unit weight can be inputed directly by entering the value first then followed by pressing [G/N] key.

(VI) Unit weight by sampling

1. Put the objects intended for sampling on the pan.
2. Input the number of the objects, this number will blink in the Unit Weight display.
3. Press [▲] Key, the calculated unit weight will then be shown in the Unit weight display, the total quantity will then be displayed.

(VII) Counting check

Users can set a number for counting check, when the number of objects on the pan is larger than the preset checking number, the alarm will beep repeatedly.

Set: Enter in the desired checking number, then press  key.

Clear: Press  key.

(VIII) Accumulation

Use  ,  , keys to add or clear accumulated times and total count.

1. Press  key after total count has been calculated and displayed. The display will show the accumulated times in the Total Weight display(×××represents the total accumulated times, a maximum of 99 accumulations can be accepted. The display will show "**OL**" when the accumulated count are more than 999999) and total quantity in the Unit Weight display.
2. Press  Key to clear the stored data.

(IX) Selection of Filter parameter

While the scale is used in a different location, changing the response speed could be desired. You can change the STABLE time and the stability of the scale by setting the filter parameter.

Press and hold  key and turn the scale ON, until the end of self-test, the display will show the current filter parameter. Press  key again to change. Press the key  to confirm

("∩**b X**" represents a class of filter parameters and the larger "X" is, the faster respond speed is.).

(X) Zero tracking range and Zero display range

1) **Selection of Zero tracking range.**

Turn the scale ON , then press and hold  until the end of the self-test, "0.0d" or "0.5d","1.0d", "1.5d","2.0d","3.0d" will be displayed. Press  to change, press  to confirm.

2) **Selection of Zero display range.** After selecting Zero tracking range, it will display "Zero-S"(invalid) or "Zero-L" (" 0" is displayed when the weight is within ±3d range). Press  key to change, press  to confirm.

3) Select whether "0" will be shown when the weight is within **–30d**~0.0d). Press  Select " 30d OFF" or " 30d ON" , press  to confirm.

(XI) Division Selection

Turn the scale ON , then press and hold  key until the end of the self-test, the display will show the selected division. Press  key to change and press  to confirm.

(XII) Counting and Auto-average

Turn the scale ON, Press & hold  until the end of self-test, "div" will be displayed (counting division) or "Code" (counting ISN). Press  key to change, press  to confirm. Next the display will show " OFF " (turn auto-average off) or " ON "