

Operating
Manual

Counting scale

CKG



CONTENTS









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1. INTRODUCTION







The CKG series of scales provides an accurate, fast and versatile series of counting scales.

All units include automatic zero tracking, audible alarm for pre-set weights/quantity, tare, pre-set tare and an accumulation facility that allows the count to be stored and recalled as an accumulated total.

2. KEY DESCRIPTIONS

text	symbol	function
CE		Used to clear the unit weight or an erroneous entry. Hold this key can shift in weighing check alarm and counting check alarm.
0~9 .		Numeric entry keys, used to manually enter a value for tare weights, unit weight, and sample size.
M+		Add the current count to the accumulator. Up to 99 values or full capacity of the weight display can be added.
MR		To recall the accumulator memory.
Pst		To set the high/low limit for the weighing and counting checking alarm.
Unit. wt.		Used to enter the weight of a sample manually.
Sample		Used to input the number of items in a sample.
Zero		Set the zero point for all subsequent weighing. Display shows zero.
Tare		Tares the scale. Stores the current weight in memory as a tare value, subtracts the tare value from the weight and shows the Net weight. Entering a value using the keypad will store that value as the tare value.
Print		To print the results to a PC or printer using the optional RS-232 interface.

3. DISPLAYS

text	symbol	description
Sample		indicators will show when the scale has determined that there is an insufficient number of samples to accurately determine the count:
Preset		If a preset count has been stored, this indicator will have an arrow above it.
U. weight		When the unit weight is not large enough to determine an accurate count.
Memory	M+	Indicators will show when a value has been entered into memory when the arrow above the "memory" legend is on.
batt.		Low battery, when this indication on, please charge battery immediately
NET	NET	Net Weight Display,
stable		Stability indicator,
zero		Zero Indicator,

Just under the quantity display is an LED to indicate the status of battery charging. When the scale is plugged into the mains power the internal battery will be charged. When charge the battery, the LED is read, when full of charge, the LED turn to green.

4. BASIC OPERATION

4.1 Zeroing The Display

You can press the **ZERO** key at any time to set the zero point from which all other weighing and counting is measured, within 2% of power up zero. This will usually only be necessary when the platform is empty. When the zero point is obtained the Weight display will show the indicator for zero.

The scale has an automatic rezeroing function to account for minor drifting or accumulation of material on the platform. However you may need to press **ZERO** to rezero the scale if small amounts of weight are

shown when the platform is empty.

4.2 Taring

There are two methods to enter a tare value. The first uses the weight on the platform and the second uses a value input by the user.

4.2.1 Normal Tare

Zero the scale by pressing the **ZERO** key if necessary. The zero indicator will be on.

Place a container on the platform, a value for its weight will be displayed.

Press the **TARE** key to tare the scale. The weight that was displayed is stored as the tare value and that value is subtracted from the display, leaving zero on the display. The "Net" indicator will be on. As product is added only the weight of the product will be shown. The scale could be tared a second time if another type of product was to be added to the first one. Again only the weight that is added after taring will be displayed.

When the container is removed a negative value will be shown. If the scale was tared just before removing the container this value is the gross weight of the container plus all product that was removed. The zero indicator will also be on because the platform is back to the same condition it was when the **ZERO** key was last pressed.

4.2.2 Pretare

This method allows you to enter a value for the tare weight from the keypad. This is useful if all containers are the same or if the container is already full but the net weight is required and the tare weight of the container is known.

Remove all weight from the platform, press the **ZERO** key to zero the display.

Enter the value for the Tare weight using the keypad, press **TARE** to store the tare value. The weight will show a negative value equal to the tare.

Place the container on the platform.

The display will then show the weight of the container minus the tare weight. Then when the full container is put on the platform the tare value will be subtracted from the gross weight displaying only the net weight of the contents.

If the value input is not consistent with the increment of the scale the scale will round the tare value to the nearest value possible. For example if a tare value of 10.3g is entered onto the 6Kg/0.5g scale then the display will show -10.5g.

5. PARTS COUNTING

5.1 Setting Unit Weight

In order to do parts counting it is necessary to know the average weight of the items to be counted. This can be done by weighing a known number of the items and letting the scale determine the average unit weight or by manually inputting a known weight using the keypad.

5.1.1 Weighing a sample to determine the Unit Weight

To determine the average weight of the items to be counted it will be necessary to place a known quantity of the items on the scale and then to key in the quantity being weighed.

The scale will then divide the total weight by the number of samples and display the average unit weight.

Zero the scale by pressing the **ZERO** key if necessary. If a container is to be used, place the container on the scale and tare as discussed earlier.

Place a known quantity of items on the scale. After the weight display is stable enter the quantity of items using the numeric keys

followed by **SMPL** key. The number of units will be displayed on the "Quantity" display and the computed average weight will be shown on the "Unit Weight" display.

As more items are added to the scale, the weight and the quantity will increase.

If the scale is not stable, the calculation will not be completed. If the weight is below zero, the quantity display will show negative count.

5.1.2 Entering a Known Unit Weight

If the unit weight is already known then it is possible to enter that value using the keypad.

Enter the value of the unit weight using the numeric keys followed by pressing the **U.weight** key. The "Unit Weight " display will show the value as it was entered.

The sample is then added to the scale and the weight will be displayed as well as the quantity based upon the unit weight.

5.2 Parts Counting

After the unit weight has been determined or entered it is possible to use the scale for parts counting. The scale can be tared to account for package weight as discussed in an earlier section.

After the scale is tared then the items to be counted are added and the "Quantity" display will show the number of items computed using the weight and the unit weight.

It is possible to increase the accuracy of the unit weight at any time during the counting process by entering the count displayed then pressing the **U.weight** key. You must be certain the quantity displayed matches the quantity on the scale before pressing the key. The unit weight will be adjusted based upon a larger sample quantity. This will give greater accuracy when counting larger sample sizes.

5.3 Automatic Part Weight Updates

The scales will automatically update the unit weight when a sample equal to less than the sample already on the platform is added. A beep will be heard when the value is updated. It is wise to check the quantity is correct when the unit weight has been updated automatically.

This feature is turned off as soon as the number of items added exceeds the count used as a sample.

6. WEIGHING AND COUNTING CHECKING ALARM

6.1 Set Hi/low Limit

Press **Pst** key, display show `Hi cnt`, key in high limit for counting alarm, press **TARE** to confirm, then display show `lo cnt`, key in low limit for counting alarm, press **TARE** to confirm, then display show `hi net`, key in high limit for weighing, press **TARE** to confirm, then display

show `lo net`, key in low limit for weighing, press **TARE** to confirm, back to normal weighing mode.

6.2 Checking Alarm

At first, you need set checking mode, hold **CE** key, you will show `check net` (weighing checking alarm), `check pcs` (counting checking alarm) or `check off` (don't use alarm function).

You can set beep when high (when weight/quantity > high limit, beep on), low (when weight/quantity < low, beep on), OK (when weight/quantity in high-low range, beep on), NG (when weight/quantity out of high-low range, beep on), about how to set the beep mode, see detail in technical manual.

7. ACCUMULATED OPERATION

7.1 Manually Accumulated Total

The values (weight and count) shown on the display can be added

to the values in the accumulator by pressing the **M+** key. The "Weight " display will show the total weight, the "Count" display will show the total accumulated count and the "Unit Weight" display shows the number of times items have been added to the accumulation memory. The values will be displayed for 2 seconds before returning to normal.

The scale must return to zero or a negative number before another sample can be added to the memory.

More product can then be added and the **M+** key pressed again. This can continue for up to 99 entries, or until the capacity weight display is exceeded.

To observe the total stored press the **MR** key. The totals will be displayed for 2 seconds.

To clear the memory press **MR** to recall the totals from memory and then press the **CE** key to clear all values from memory.

7.2 Automatic Accumulated Totals

The scale can be set to automatically accumulate totals when a weight is placed on the scale. This eliminates the need to press the **M+** key to store values into memory. However the **M+** key is still active and can be pressed to store the values immediately. In this case the values will not be stored when the scale returns to zero.

8. CALIBRATION

Press **TARE** key during selfchecking, to enter the parameter menus, the default password is 0000.

When the parameter menu show "F1 CAL" press the **TARE** key. The display will then show "unLoAd" to request all weight be removed from the platform.

Press the **TARE** key to set the zero point.

Key in the calibration weight you want to use, then put this weight on the platform and then press the **TARE** key. The scale should be

stable before pressing the **TARE** key to accept a weight. The stability indicator will turn on to show the value is stable.

When calibration is finished the scale will come into natural weighing if it was successful.

9. BATTERY OPERATION

The scales can be operated from the battery if desired. The battery life is approximately 100 hours.

When the battery needs charging the arrow above the low battery symbol under the weight display will turn on. The battery should be charged as soon as the arrow above the symbol is on. The scale will still operate for about 10 hours after which it will automatically switch off to protect the battery.

To charge the battery simply plug into the mains power. The scale does not need to be turned on.

The battery should be charged for 12 hours for full capacity.

Just under the quantity display is an LED to indicate the status of battery charging. see detail in page2: display.

As the battery is used it may fail to hold a full charge. If the battery life becomes unacceptable then contact your distributor.