# T-Scale

**Operation Manual** 

**KC**Counting Indicator

T-Scale

See the technical manual for details of how to enable Automatic Accumulation.

# 7. BATTERY OPERATE

When battery voltage low, the bat. low arrow will turn on. The battery should be charged as soon as the arrow is on. To charge the battery simply plug into the AC adapter. The scale does not need to be turned on.

There is an LED under the weight display window to indicate the status of battery charging. If the LED is green the battery has a full charge. If it is yellow the battery is nearly full of charge and red indicates the battery is being charged.

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

Note: please keep charge battery at least 1 hour after LED turn to green to insure full charge.

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# 1 INTRODUCTION

The KC series weighing indicator provides an accurate, fast and versatile series of counting and check-weighing scales. There are 4 series of scales within the range, KC scales are Kilogram only scales and the KC range are changeable from pounds to kilograms. The scales in these series share the same functions but special instructions will be given for the KC series to account for the ability to change weighing units.

All the keypads are sealed, colour coded membrane switches and the displays are large easy to read liquid crystal type displays (LCD). The LCD's are supplied with a backlight.

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

## **2 KEY DESCRIPTIONS**

**0-9**, •

Numeric entry keys, used to manually enter a value for tare weights, unit weight, and sample size.

CE or C

Used to clear the unit weight or an erroneous entry.

Zero or →0+

Set the zero point for all subsequent weighing. The display shows zero. Hold this key for 3 second, will turn off the power (KC only)

Tare or 🚓

Tares the scale. Stores the current weight in memory as a tare value, subtracts the tare value from the weight and shows the results. This is the net weight. Entering a value using the keypad will store that value as the tare value.

 $M+ \text{ or } \rightarrow +$ 

Add the current count to the accumulator. Up to 99 values or full capacity of the weight display can be added.

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

To clear the value from memory and thereby turn off the check-weighing feature, enter the value "0" into the memory.

# 6. ACCUMULATE

# **6.1 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 M+ key. The totals will be displayed for 2 seconds.

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

# 6.2 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.

#### **4.2 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 **SMPL** 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.

#### 4.3 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.

# 5. COUNT PRESET OR CHECK-WEIGHING

First you should set the low/high value. Press  $\boxed{\text{Pst}}$  key, display show  $H \cap E \cap E$ , key in high limit for counting alarm, press  $\boxed{\text{TARE}}$  to confirm, then display show  $L \cap E \cap E$ , key in low limit for counting alarm, press  $\boxed{\text{TARE}}$  to confirm, then display show  $H \cap \cap E \cap E$ , key in high limit for weighing, press  $\boxed{\text{TARE}}$  to confirm, then display show  $L \cap \cap E \cap E$ , key in low limit for weighing, press  $\boxed{\text{TARE}}$  to confirm, back to normal weighing mode.

Then check alarm. At first, you need set checking mode, hold  $\[CE]$  key 3 seconds, it will show  $\[CE]$  (weighing checking alarm),  $\[CHE]$  (counting checking alarm) or  $\[CHE]$   $\[CE]$  (don't use alarm function).

# Smpl or →

Used to input the number of items in a sample.

Unit Wt or →

Used to enter the weight of a sample manually.

**PST** or

To set the upper limit for the number of items counted. When this upper limit is exceeded the scale will sound the beeper.

# ON

Turn on the power.

**OFF** 

Turn off the power.

# **3 BASIC OPERATION**

#### 3.1 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 4% 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.

## 3.2 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.

# 3.2.1 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.

## 3.2.2 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 103g is entered onto the 60Kg/5g scale then the display will show -105g.

#### 4. PARTS COUNTING

## **4.1 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.

## 4.1.1 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 the **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.

## 4.1.2 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 **UNIT WT** 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.