



MANUAL

QHC+

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1. Introduction

The QHC series of scales provides an accurate, fast and versatile series of counting and check-weighing scales.

There are 4 models in this series, with capacities from 3kg up to 30 kg.

They all have stainless steel weighing platforms on an ABS base assembly.

All the keypads are sealed, color 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. Buttons

Zero	Set the zero point for all subsequent weighing. The 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 results. This is the net weight. Entering a value using the keypad will store that value as the tare value.
Sample	Used to input the number of items in a sample.
U.Wt.	Used to enter the weight of a sample manually.
PST	To set the upper limit for the number of items counted. When this upper limit is exceeded the scale will sound the beeper.
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.
Print	To print the results to a PC or printer using the optional RS-232 interface.
C	Used to clear the unit weight or an erroneous entry.
0-9 .	Numeric entry keys, used to manually enter a value for tare weights, unit weight, and sample size.

3. Displays

	Battery low
Net	Net weight
Stable	Stability indicator
Zero	Zero indicator
Sample	Not enough samples on the platform.
U.Wt.	Too small weight on the sample. Cannot do a perfect counting.
Pst	If any counting data is stored in the scale this symbol is lit.
Memory	If any accumulation data is stored in the scale this symbol is lit.
Charging	 Battery charging
	 Battery almost empty
	 Battery is loaded

4. Basic operation

- 4.1 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.
Zeroing 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 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.
Taring
- 4.2.1 Zero the scale by pressing the **ZERO** key if necessary. The zero indicator will be on.
Normal Place a container on the platform, a value for its weight will be displayed.
Tare 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 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.
Known Tare 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. 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.

5.2 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.

5.3 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.

5.4 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. Control weighing

6.1 Count Preset or Check-weighing

Check-weighing (Count Pre-setting) is a procedure to cause an alarm to sound when the number of items counted on the scale meets or exceeds a number stored in memory by using the **PST** key.

The stored value is entered from the keyboard. Enter the numeric value to be stored using the numeric keys. Then press the **PST** key to store the value.

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

6.2 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.

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7. Battery function

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. When the scale is plugged into the mains power the internal battery will be charged. If the LED is green the battery has a full charge. If it is Red the battery is nearly discharged and yellow 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.

If there is any questions contact Scandinavian Scale Company AB