



# Model 7050

## Bulk Sampling Scale



# User's Manual

## **UNITED STATES**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## **CANADA**

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the radio Interference Regulations of the Canadian Department of Communications.

Le present appareil numerique n'emet pas de bruits radioelectroniques depassant les limites applicables aux appareils numeriques de la Class A prescrites dans le Reglement sur le brouillage radioelectrique que edicte par le ministre des Communications du Canada.

## **EUROPEAN COUNTRIES**

### **WARNING**

This is a Class A product. In a domestic environment this product may cause radiointerference for which the user may be required to take adequate measures.



### **CAUTION**

Risk of electrical shock. Do not remove cover. No user serviceable parts inside.  
Refer servicing to qualified service personnel.

Weigh-Tronix reserves the right to change specifications at any time.

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# Specifications

<b>Capacities and Resolutions</b>	<table border="1"><thead><tr><th>Capacity</th><th>Resolution</th></tr></thead><tbody><tr><td>50 lb.</td><td>.001 lb</td></tr><tr><td>50 lb</td><td>.01 oz</td></tr><tr><td>25 kg</td><td>.0005 kg</td></tr><tr><td>800 oz</td><td>.02 oz</td></tr></tbody></table>	Capacity	Resolution	50 lb.	.001 lb	50 lb	.01 oz	25 kg	.0005 kg	800 oz	.02 oz
	Capacity	Resolution									
	50 lb.	.001 lb									
	50 lb	.01 oz									
	25 kg	.0005 kg									
800 oz	.02 oz										
<b>Power</b>	In-line transformer, 115 VAC, 50/60 Hz Optional 230 VAC, 50/60 Hz										
<b>Operational keys</b>	Zero, Tare, Enter, Escape, Clear, 0-9, Decimal Point, ←, →, and 5 Softkeys  All keys provide users with tactile and (configurable) audio acknowledgment when they are activated.										
<b>Annunciators</b>	Display symbols include Stability, Active Tare, Current Base, Center of Zero, Unit of Measure and Display Label.										
<b>Display</b>	240 x 64 dot matrix LCD display 5" x 1.33" displayable area 7050: Cold cathode fluorescent backlit (white on blue)										
<b>Display rate</b>	Selectable, 0.1 to maximum readable updates										
<b>Units of measure</b>	Pounds, kilograms, ounces, pounds and ounces										
<b>Displayed resolution</b>	Up to 1 part in 50,000										
<b>Time and date</b>	Battery protected real time clock										
<b>Internal Resolution</b>	Quartzcell: 1 part in 2,000,000										

<b>Harmonizer digital filtering</b>	Fully selectable to ignore noise and vibration
<b>Memory</b>	Capable of storing one record for recall including ID #, pieces, weight, pieces per lb., and piece weight.
<b>Power saving</b>	Scale has 2 power-saving timers; one controls backlight, and another has capability of shutting the scale off. Any keypress wakes the scale.
<b>Standard input and output</b>	Com1: RS-485; used for interfacing with a remote Quartzell® base.  Com2: RS-232; used for connecting to an Orion label printer.
<b>Available options</b>	<ul style="list-style-type: none"> <li>• Remote Quartzell scale 3635-300 lb 18" x 18" base</li> <li>• 230 VAC in-line transformer</li> <li>• Orion Label Printer</li> </ul>
<b>Operating temperature</b>	14°F to 104°F (-10°C to 40°C), 10 to 90% RH non-condensing
<b>Dimensions</b>	Platform 12" x 14" Overall 14" W x 17" D x 4.5" H
<b>Weight</b>	18.5-lbs.
<b>Agencies</b>	UL CE CUL pending
<b>Warranty</b>	15 months

# Introduction

This manual explains the operation of the 7050 bulk sampling scale. The 7050 is a computer-based counting scale specifically configured for bulk mail applications.

This manual explains only the basic application which ships from the factory and also assumes all the functions of the scale are enabled. Your scale has been configured for your particular application.

This manual is divided into the following main sections:

- Unpacking and Preparing the 7050
- 7050 Description
- Weighing Operations
- Bulk Sampling Operations

## Unpacking and Preparing the 7050



### Warning

*The unit must be plugged into an easily accessible outlet that is earth grounded and of the appropriate voltage.*

When you receive your 7050, unpack the unit and save all shipping materials. Remove the protective plastic from the scale platform.

Place the scale on a level, vibration free surface. Level the scale with the help of the bubble level under the scale platform. Turn the screw feet until the bubble is centered and the scale does not rock. Tighten the knurled locking knobs above each foot against the scale base. Plug the unit into the appropriate power source. Keep in mind that the power receptacle must be earth grounded and easily accessible to the user.

Press any key to activate the scale.

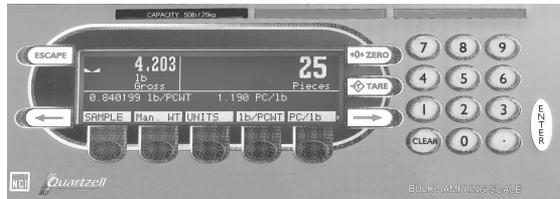
Upon power up, the unit will briefly display an opening screen, then show the default display mode. The scale is now ready for use. After several minutes of inactivity, the scale will go into a sleep mode. Press any key to reactivate the scale.

## 7050 Description

**Figure 1**  
7050 front panel

*To increase the contrast of the display, press and hold the CLEAR and 9 keys until the desired contrast is reached. To decrease contrast, press and hold the CLEAR and 3 keys.*

The 7050 is a 12"x 14" scale with an attached 5" x 12" display housing. See Figure 1. The scale base is cast aluminum enclosing a QDT® (Quartzell® Digital Technology) weight sensor and electronics package. The scale platter is stainless steel.



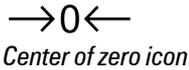
The display is a 64" x 240" dot matrix which allows several lines of text and the ability to display graphics.

There are five softkeys located directly below the display, a numeric keypad to the right and six other labeled keys. The keys will be described in the next section.

Built into the 7050 are two serial ports (Com1 and Com2). Com1 is used for 3635 QDT® base connection only. Com2 is used for Orion printer connection only.

### Front Panel Keys

The keys on the front panel of the 7050 are of two types; hard keys and softkeys. Hard keys are labeled directly and softkey labels appear on



## Hard Keys

the display. Softkeys function differently at different times and their labels change as needed.

Below are brief descriptions for each of the hard key functions:

### ESCAPE

Press the **ESCAPE** key to back out of menus or cancel an entry and return to gross weight mode.

### ZERO

Press the **ZERO** key to establish a zero reference. When the scale is at zero,  $\pm 1/4$  division, the center-of-zero icon will be displayed. When the scale is in motion the stable scale icon will disappear. See note at left.

### TARE

Press the **TARE** key to zero weight of container or enter an active tare weight. The display shows net weight. Active on both local and remote scale.

### ENTER

Press the **ENTER** key to accept displayed information, whether numeric characters that have been keyed in or a choice displayed while in the menus.

### CLEAR

Press the **CLEAR** key to clear last digit from a displayed number. Repetitive pressing will clear all digits entered.

### 0-9 and .

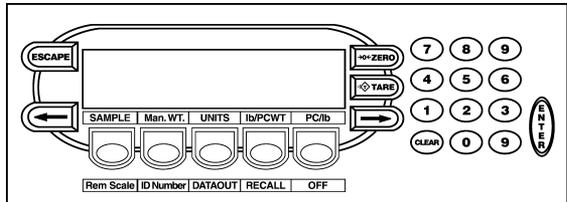
Use the numeric keys for entering in numbers or a decimal

## Right Arrow

Press this key to acquire second tier of softkeys.

## Left Arrow

Press this key when in second tier of softkeys to return to first tier of softkeys



## Softkeys

Softkeys are so named because their function is not set but changes as the programming directs. Press the **Right** or **Left Arrow** key to scroll between the two tiers of soft keys.

The softkeys which appear in the 7050 BSS application are as follows:

### First Tier:

#### Sample

Press this key to start sample process

#### Manual Weight Entry

Press this key to manually enter gross weight from a remote scale or other source.

#### Units

Press this key to change the unit of measure

#### Weight per piece entry

Press this key to manually enter a known piece weight in decimal pounds or ounces.

### Pieces per unit weight entry

Press this key to manually enter known pieces per pound.

### Second Tier:

#### Remote Scale

Connection to 3635-300# only

#### ID Number

Press this key to manually enter an ID or job number (up to 16 digits)

#### Print

Press this key to send a formatted output to a label printer

### RECALL

Press this key to recall previous transaction. Press **ESCAPE** to return to the count/weight display.

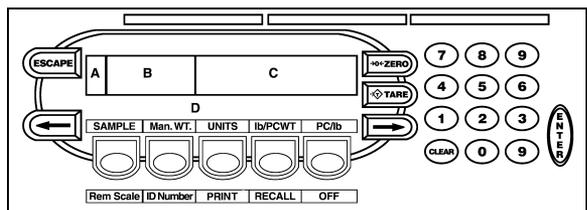
### OFF

Press this key to turn the display off. Pressing any key will turn the scale on.

These keys will be described in more detail as scale operation is described in the following sections.

## Weighing Operations

The basic unit Model 7050 will operate in the following manner: After system check, Area A will indicate a stable condition and center of zero, Area B will display 0.000 lb. Gross, Area C will display 0.000 lb. Gross, Area D will be blank.



### Single Piece Weighing

Place a single piece on the weight platter. Using the "UNITS" soft key, you can toggle between 0.001 lb. and 0.01 oz. The weight of the single piece will be displayed in Areas B and C.

### Gross Weighing

Follow these steps to perform a gross weighing operation.

1. With the scale powered up, zero the scale if the display does not already show zero by pressing the **ZERO** key. . .  
Display shows **0** weight.
2. Place the item to be weighed on the scale platform. . .  
Gross weight is displayed.
3. Remove the item and repeat all steps for the next item.

### Net Weighing

Follow these steps for performing a net weighing operation:

1. With the scale powered up, zero the scale if the display does not already show zero by pressing the **ZERO** key. . .  
Display shows **0** weight.
2. Place the container to be tared on the scale platform. . .  
Gross weight is displayed.
3. Press the **TARE** key. . .  
The weight is tared, **0** weight is displayed and the tare and net annunciators appear on the display.

4. Place the material to be weighed in the container. . .

Net weight is displayed.

5. To remove the tare weight from memory, empty the scale platform and press the **TARE** key. . .

Scale returns to gross weighing mode.

### **Entering a Known Tare Weight**

To enter a known tare weight, follow these steps:

1. Key in the known tare weight on the numeric keypad. . .

When you press a numeric key, the softkey selections change. One of the softkeys is **TARE**.

2. Press the **TARE** softkey. . .

The keyed in value becomes the active tare weight and the display changes to net weighing mode.

### **Removing an Active Tare Weight**

To remove an active tare weight, empty the scale platform and press the **TARE** key or key in **0** on the numeric keypad and press the **TARE** softkey. The display returns to gross weighing mode.

## **Bulk Sampling Operations**

### **Sampling Overview**

To perform a bulk sampling operation the first step is to obtain the average weight of each piece or the piece weight, abbreviated as pcwt. You can key in a known piece weight or obtain a piece weight by sampling.

Sampling consists of placing a known number of pieces on the scale and letting the scale determine the individual piece weight. The

scale uses this to determine the count of pieces placed on the scale. The piece weight is kept in memory until a new sample is taken.

You can sample using the bulk or dribble modes. **Factory default is dribble mode.** This can be changed to bulk mode in configuration.

In dribble mode the scale prompts you to place the sample pieces on the platform one at a time, or all at one time, and when you are done, press the **ENTER** key. The scale calculates the piece weight and puts the display into the count mode. This allows you to count out pieces onto the platform.

In bulk mode you are prompted to place a specific number of pieces on the scale all at one time. After motion ceases the scale automatically calculates the piece weight and goes into the count mode. This means you must have the counted pieces or sample ready to place on the scale all at once.

### **Sampling in Dribble Mode**

Follow these steps to perform a sampling operation using the dribble mode:

1. Press the SAMPLE softkey. . .

The scale zeroes itself and the display prompts: **Load 10 samples or key in a sample size larger than 10, press ENTER. Sample Size = 10.**

Ten is the default sample size.

Minimum sample size can be changed in configuration.

or  
key in a new sample size larger than 10.  
Press the ENTER key, then count out the  
new sample amount onto the scale and  
press ENTER. . .

The display shows **Standby. . .  
computing piece weight**; then the  
display shows the weight, count,  
weight per piece, and pieces per  
weight.

3. Place items to be counted on the scale. . .  
Count and weight are displayed.
4. Repeat step three until you are done with all  
**identical** items.

### **Sampling in Bulk Mode**

Follow these steps to perform a sampling  
operation using the bulk mode:

1. Press the **SAMPLE** softkey. . .  
The scale zeroes itself and the display  
prompts you to: ***Load 10 samples or  
key in a sample size from 11 to  
999. Sample Size = 10.*** Ten is the  
default sample size. Minimum sample  
size can be changed in configuration.
2. Place all the items on the scale  
or  
key in a new sample size larger than 10,  
press the **ENTER** key, then count out the  
new sample amount onto the scale. . .  
The display shows **Standby. . .  
computing piece weight**, then the  
display shows the weight, count,  
weight per piece, and pieces per  
weight.

3. Place items to be counted on the scale. . .  
Count and weight are displayed.
4. Repeat step three until you are done with all **identical** items.

The display will then show "COUNT" in Area C, weight in Area B, and show lb./pcwt and pcs per lb. in Area D. Note that the weight shown in Area B will indicate Gross weight, even though a container weight might have been nulled during the sample acceptance procedure. Net weight will only be designated if a specific tare value is entered.

By pressing the "UNITS" key, the metrological display values will change to pounds and ounces; piece weight will be expressed in ounces and pieces per weight in pounds.

As pieces are added to the weight platter, the count and weight will change accordingly. The information in Area D will remain the same.

### **Counting While Using a Container**

To perform a count while using a container, place the container on the scale and press the SAMPLE key. The scale automatically zeroes and the scale is ready for bulk or dribble sampling as described in the previous sections.

### **Entering Numeric Values**

The 7050 will allow entry of numeric values for manual weight (Man. Wt), piece weight (lb/PCWT), pieces per pound (PC/lb), or ID number (ID No.). Press one of these softkeys then enter the numeric value to that function. The display returns to normal operating mode with the value active.

## Reverse Sampling

You can determine the entire count of a container without emptying the container. This is called reverse sampling. If at this time, a loaded container with a predetermined tare value is placed on the weight platter, the tare value can be entered, by keying in the value on the 0-9 keyboard. The value of tare will be displayed in area D until the "TARE" SOFT key is pressed. At that time, the tare value will be subtracted from the gross weight shown in Area B. The resulting weight will be shown as NET, and the status window, Area A, will show a Predetermined Tare symbol. The tare equivalent count will be subtracted from the Count display. To delete "TARE," empty the scale and press the "TARE" key. Works on local and remote base.

To proceed with sampling on local scale, press "SAMPLE." Remove the number of pieces required by the scale, then place the same number back on scale and press enter. The scale will then compute correct weight per piece and pieces per weight.





## **WEIGH-TRONIX**

1000 Armstrong Drive  
Fairmont, MN 56031 USA  
Telephone: 507-238-4461  
Facsimile: 507-238-4195  
E-mail: [service@wt-nci.com](mailto:service@wt-nci.com)  
[www.wt-nci.com](http://www.wt-nci.com)