Digital Counting Scale

CS Series

Operation Manual

8526-M256-01 Rev A
01/05

Cardinal Scale Manufacturing Co.
PO BOX 151 WEBB CITY, MO 64870
PH (417) 673-4631 - FAX (417) 673-5001
www.detectoscale.com

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INTRODUCTION

Thank you for purchasing our Detecto CS Series Digital Counting Scale. Your scale is equipped with a rechargeable battery pack that is able to provide 100 hours continuous operation (with backlight on) or 200 hours continuous operation (with backlight off).

This manual will guide you through setup and operation of your scale. Please read it thoroughly before attempting to operate this scale and keep it handy for future reference.

FCC COMPLIANCE STATEMENT

WARNING! This equipment generates, uses and can radiate radio frequency and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area may cause interference in which case the user will be responsible to take whatever measures necessary to correct the interference.

You may find the booklet "How to Identify and Resolve Radio TV Interference Problems" prepared by the Federal Communications Commission helpful. It is available from the U.S. Government Printing Office, Washington, D.C. 20402, stock No. 001-000-00315-4.

Serial Number_____
Date of Purchase _____
Purchased Form_____
_____
_____

RETAIN THIS INFORMATION FOR FUTURE USE

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SPECIFICATIONS

Displays: (.75" High LCD, with backlight)	Weight = 5 Digits Piece Weight = 5 Digits Count = 6 Digits
Dimensions:	11.75" W x 12.63" D x 4.25" H (298mm x 321mm x 108mm)
Platform Size	11.38" W x 8.25" D (289mm x 210mm)
Model CS-6 CS-15 CS-30 CS-65	Capacity and Division Value 6 lb x .0005 lb (3 kg x .2g) 15 lb x .001 lb (7.5 kg x .5g) 30 lb x .002 lb (15 kg x 1g) 65 lb x .005 lb (30 kg x 2g)
Zero	Established on power up routine and maintained by auto-zero circuitry
Power	Built-in rechargeable battery pack or 115 VAC 50/60Hz or 230 VAC 50/60Hz
Tare	100% of full scale capacity
Temperature	32 ~ 104°F (0° ~ 40°C)
Humidity	25% ~ 95% RH

PRECAUTIONS
Before using this instrument, read this manual and pay special attention to all "WARNING" symbols:


IMPORTANT

ELECTRICAL WARNING

INSTALLATION

Unpacking

Before beginning installation of your CS Series Digital Counting Scale, make certain the instrument has been received in good condition. Carefully remove the instrument from the shipping carton and inspect it for any evidence of damage (such as exterior dents or scratches) that may have taken place during shipment. Keep the carton and packing material for return shipment if it should become necessary. It is the responsibility of the purchaser to file all claims for any damages or loss incurred during transit.

Placement

Place the scale on a stable, vibration-free level surface away from direct sunlight and from any rapidly moving air source (heating/cooling vents, fans, etc.). Make certain the power cord and peripheral cables are routed out of the way of normal traffic.

CAUTION! DO NOT place the scale on any unstable cart, stand or table. The scale may fall causing injury to the operator, and seriously damage the unit, or proper operation of the scale may be inhibited.

Level Adjustment

Check to make certain the scale is level. The level indicator is located at the front of the scale. If the scale is not level (the bubble will not be centered), loosen the locking ring on all four (4) mounting feet and adjust them as required to center the bubble and attain a level scale. Once a level condition has been obtained, lock the mounting feet in place by tightening the adjustment locking rings against the bottom of the scale.

Not Leveled **Leveled**

Power Connection

The scale contains a power supply that converts the 110/120/220/240 VAC 50/60Hz wall supply to the power required by the scale circuitry. The power supply also contains the circuitry necessary to monitor and recharge the battery and is capable of operating the scale and recharging the battery simultaneously.

AC Operation

Plug the power cord into a grounded, polarized wall receptacle that supplies 110/120 VAC 50/60Hz power. *If it is necessary to use an extension cord, make certain it is a 3-wire, fully grounded type using a minimum of 18-gauge wire.* Be certain the power cord is routed out of the way of normal traffic. If only an ungrounded wall receptacle is available, **it is the customer's responsibility** to contact a qualified electrician to replace the ungrounded receptacle with a properly grounded polarized wall receptacle or have a grounding adapter properly installed.

CAUTION! To avoid electrical hazard, DO NOT under any circumstances, cut, remove, alter, or in any way bypass the power cord-grounding prong.

It is the responsibility of the customer to contact a qualified electrician to install the proper power cord connector. Plug the power cord into a grounded, polarized wall receptacle that supplies 220/240 VAC 50/60Hz power. Be certain the power cord is routed out of the way of normal traffic.

PRECAUTIONS

Most scales are designed for an office type environment. The CS Series Digital Counting Scale is no exception to that rule. The following should be used as a guideline for the proper environment to operate your scale:

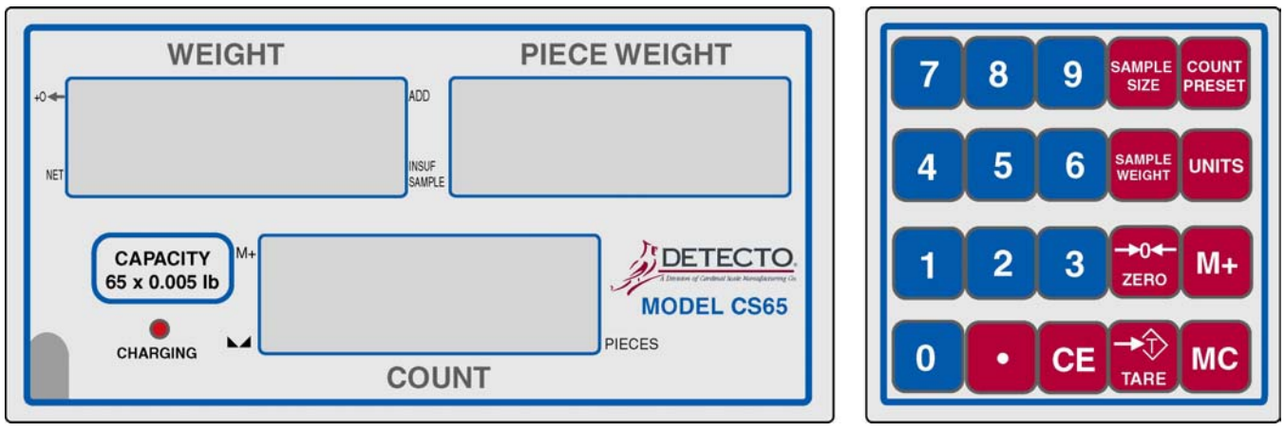
- The environment should be free of excessive dust and moisture.
- Provide a comfortable temperature. In general, the scale will perform well over a temperature range of 32 to 104° F (0 to +40° C).
- In order to keep cooling requirements to a minimum, the scale should be placed out of direct sunlight and to provide adequate air circulation, keep the area around the scale clear.
- Make certain the scale is not directly in front of a heating or cooling vent. Such a location will subject the scale to sudden temperature changes and air currents that may result in unstable weight readings.
- Insure that the scale has good, clean AC power and is properly grounded. In areas subject to lightning strikes, additional protection to minimize lightning damage, such as surge suppressors, should be installed.

CARE AND CLEANING

1. **DO NOT** submerge the scale in water, pour or spray water directly on it.
2. **DO NOT** use acetone, thinner or other volatile solvents for cleaning.
3. **DO** clean the indicator with a damp soft cloth and mild non-abrasive detergent.
4. **DO** remove power before cleaning with a damp cloth.
5. **DO** clean and store the scale in a plastic bag (in a dry environment) if the scale is not going to be used for some time. A desiccant packet may be included to prevent moisture build up.
6. **DO** recharge the internal battery every three months while in storage.

KEY FUNCTIONS

This section describes the use of each of the keys on the Digital Counting Scale. It will be helpful to refer to the scale keyboard or the figure below when reading this section.



The membrane keyboard is not to be operated with pointed objects (pencils, pens, fingernails, etc). Damage to keyboard resulting from this practice will *NOT* be covered under warranty.

SAMPLE SIZE This key is used to weigh a known number of pieces in preparation for a new counting operation. Sample quantities are entered using the numeric keypad in any quantity desired.

COUNT PRESET This key is used when setting the Quantity and Weight Preset limits. During a counting operation (with the limits set) if the quantity or weight exceeds the limits, the error beeper will sound and an error message will flash on the display.

SAMPLE WEIGHT Pressing this key will display the calculated average piece weight from the current sampling and counting operation. It will also allow the manual entry of a known average piece weight (using the numeric keys) to be used in the next counting operation.

UNITS Pressing this key will toggle the weighing units between pounds (lb) and kilograms (kg). **NOTE!** The currently selected weighing unit is indicated by illuminating either the lb or kg annunciator.

→0← ZERO The **ZERO** key is used to perform a variety of functions depending on the current mode of operation:

Weight Display Mode (lb or kg annunciator on): Pressing the **ZERO** key will set the weight display to zero and turn on the ZERO annunciator if the displayed weight is within ± 4% of scale capacity.

Calibration and Operational Setup Mode: Pressing the **ZERO** key and then pressing the setup parameter number on the numeric keypad while CEntr is displayed will enter that setup mode.

KEY FUNCTIONS, Cont.

M+ Pressing the **M+** key will cause the scale to display the contents of the accumulator (the number of pieces accumulated since the last time the accumulator was cleared).

The **M+** key is also used to add the current piece count value to the accumulator. The M+ annunciator will be selected to indicate the accumulation has taken place.

TARE The **TARE** key is used to display the current tare weight (or zero if no tare has been entered) and/or using the numeric keypad, to enter a new tare weight. It is also used when entering a tare under a Preset number.

MC The **MC** key is used to clear the accumulator. The M+ and ADD annunciators will turn off to indicate the clearing has taken place.

0 ~ 9 These keys are used to enter numeric data during normal operations as well as during calibration and operational setup.

• This is the decimal point key. It is used to enter a decimal point where required when entering numeric data.

CE The **CE** key is used to perform different functions depending on the current mode of operation:

- *Data Entry*: The **CE** key is used to clear an incorrect entry from the display without processing the data. If an incorrect entry is made, press the **CE** key and re-enter the correct data.

- *Count Mode:* Pressing the **CE** key while in the Count mode will finish the counting operation, update the quantity and weight accumulators and return the scale to the Weight mode.

ANNUNCIATORS

The annunciators are turned on to indicate that the scale is in the mode corresponding to the annunciator label or that the status indicated by the label is active. The following describes the functions of each annunciator.

+0← (Center-of-Zero)
The Center-of-Zero annunciator is located to the left of the WEIGHT display and is selected to indicate that the weight is within +/- 1/4 division of the center of zero.

NET
The NET annunciator is selected to show that the weight displayed is the net weight. Net weight is determined by subtracting the stored tare weight from the gross or scale weight. The tare weight, usually the weight of the container, is entered using the tare key. Note that the NET annunciator is only active when a zero tare weight or tare weight value is stored and the display is in the weight mode as shown by the illumination of the lb or kg annunciator.

 (Low Battery)

The Low Battery annunciator is used with the battery operation and will turn on to indicate that the internal battery requires charging. No change in operation will occur until just before the battery voltage drops to a level where operation is affected. At this level, the scale will automatically turn itself off.

> **NOTE!** When the battery needs to be recharged, the CHARGING LED will turn Red. After the battery has been recharged, the CHARGING LED will turn Green.

kg
The kg annunciator is turned on to show that the weight displayed is in kilograms. The **UNITS** key may be used to select kilogram as the weighing units.

lb
The lb annunciator is turned on to show that the weight displayed is in pounds. The **UNITS** key may be used to select pounds as the weighing units.

ADD
The ADD annunciator is located between the WEIGHT and PIECE WEIGHT display and is selected to show that the sample is too small to calculate an accurate piece weight. Increase the sample size to turn off the ADD annunciator.

INSUF SAMPLE
The INSUF SAMPLE annunciator is located between the WEIGHT and PIECE WEIGHT display and is selected to show that the sample is too small to calculate an accurate piece weight. If the counting function is continued without increasing the sample size, the scale will still operate even though accuracy will be affected.

M+
The M+ annunciator is selected to show that the display is in the Accumulator mode and that the value displayed is the current contents of the accumulator. Individual counts are adjusted via the (M+) and (MC) keys or optionally, any count may be entered using the numeric keypad. Note that when both the M+ and ADD annunciators are selected, the current count has been added to the accumulator.

◣◢ (Stable)
The (Stable) annunciator is located to the right of the COUNT display and is selected when the weight display is stable.

OPERATION

Power Switch

The Power Switch is located on the bottom left side panel towards the front of the scale. Place the power switch in the on position. The scale will perform a brief lamp test. This test consists of illuminating all display segments and annunciator LED's to allow the operator to make a visual verification that the display is operational. After completion of the lamp test, the scale will display the model number and software revision level, then the weight display will show zero weight, indicating the scale is ready for use.

Display Backlight

Backlight On

Press the **ZERO** key. The Piece Weight display will show CEntr. With CEntr displayed, press the **4** key on the numeric keypad. The backlight will be ON continuously.

Auto Backlight

Press the **ZERO** key. The Piece Weight display will show CEntr. With CEntr displayed, press the **5** key on the numeric keypad. When the weight is over 10 divisions or any key is pressed, the display backlight will be switched on. When the weight returns to zero or the weight on platform is less than 10 divisions, the display backlight will switch off after 5 seconds.

Backlight Off

Press the **ZERO** key. The Piece Weight display will show CEntr. With CEntr displayed, press the **6** key on the numeric keypad. The backlight will be OFF.

> **NOTE!** The backlight mode is stored in memory and will restored when the scale is switched off and back on again.

Metric Conversion

To change weighing units, simply press the **UNITS** key to toggle between pounds and kilograms. Note that either the lb or kg annunciator will illuminate to indicate which weighing unit is selected.

Before using the scale, it should be "warmed up" (turned on and unloaded for approximately 15 to 20 minutes).

Weight Display

Displaying Weight

1. With the scale in the Weight mode (0 will be displayed on the Piece Weight and Count displays), place the item to be weighed on the scale platform.
2. The display will show the weight on the scale platform. The lb or kg annunciators will illuminate to indicate which unit of weight has been selected and that the scale is in the Weight mode. Note that the Piece Weight and Count display will remain at 0 (zero).

Zero the Weight Display

1. With the scale in the Weight mode (0 will be displayed on the Piece Weight and Count displays), press the **ZERO** key.
2. The Piece Weight display will show CEntr.
3. The weight display will return to zero. The ZERO annunciator will illuminate, indicating a center-of-zero gross weight condition.

OPERATION, Cont.

Counting

Weight of Sample is Unknown

1. With the scale in the Weight mode (0 is displayed on all displays), place the sample on the scale platform.
2. On the numeric keypad, enter the number of pieces in the sample.
3. While the display is blinking, press the **SAMPLE SIZE** key.
4. Add the pieces to be counted and read the total count on the Count display.
5. Remove the pieces from the scale.
6. Press the **CE** key to complete the counting operation and return to the Weight mode.

Sample Weight is Known

1. With the scale in the Weight mode (0 is displayed on all displays), using the numeric keypad, enter the piece weight of the sample.
2. Press the **SAMPLE WEIGHT** key.
3. Add the pieces to be counted and read the total count on the Count display.
4. Remove the pieces from the scale.
5. Press the **CE** key to complete the counting operation and return to the Weight mode.

Counting With An Insufficient Sample

1. With the scale in the Weight mode (0 is displayed on all displays), place the sample on the scale platform.
2. On the numeric keypad, enter the number of pieces in the sample.
3. While the display is blinking, press the **SAMPLE SIZE** key.
4. If the sample weight is too small, the INSUF SAMPLE and ADD annunciators will be turned on and the Count display will show the number of pieces to be added.
5. Add the number of pieces requested. Note that if the pieces are not added the INSUF SAMPLE annunciator will stay on to show the out-of-tolerance count.
6. Add the pieces to be counted and read the count.
7. Press the **CE** key to complete the counting operation and return to the Weight mode.

OPERATION, Cont.

Accumulator

Adding to the Count Accumulator

1. With the display showing the current count, press the **M+** key to add to the value of the Count Accumulator.
2. The Piece Weight display will display Add, then change to show the accumulator values (to indicate the addition to the accumulator has taken place). After 3 seconds, the scale will return to the counting mode.
3. Remove the pieces from the scale.
4. Press the **CE** key to complete the counting operation and return to the Weight mode.

Additional Count Accumulator additions cannot take place until the current counting operation has been completed and the scale weight returns to zero. Refer to Operational Setup, M+ Key Continuous Operation (1, 5).

Adding to the Weight Accumulator

1. With the scale in the Weight mode (0 is displayed on all displays), place the item on the scale platform.
2. Press the **M+** key to add to the value of the Weight Accumulator.
3. The Piece Weight display will flash Add, then change to show the accumulator values (to indicate the addition to the accumulator has taken place). After 3 seconds, the scale will return to the weight mode.
4. Remove the item from the scale.
5. The scale is ready for the next counting or weight operation.

Additional Weight Accumulator additions cannot take place until the current weighing operation (scale weight returns to zero) has been completed. Refer to Operational Setup, M+ Key Continuous Operation (1, 5).

Displaying the Accumulators

With the scale in the Weight mode (0 is displayed on all displays), press the **M+** key to display the content of the accumulators. The values of the accumulators will be displayed for 3 seconds, then return to the Weight mode display.

Clearing the Accumulators

Press the **MC** key. The accumulators will be reset to zero.

OPERATION, Cont.

Tare Weight Entry

Push Button Tare

1. With the scale in the Weight mode (0 is displayed on all displays), place the empty container on the scale platform.
2. Press the **TARE** key. The weight display will change to zero and the NET annunciator illuminates, indicating net weight is being displayed. The empty container's weight has been entered as "tare weight".

Pre-set Tare with Known Weight of Container

1. With the scale in the Weight mode (0 is displayed on all displays), press the **TARE** key. The display will flash PrEtA.
2. Using the numeric keypad, enter the desired tare (container) weight.
3. After the desired tare value has been entered, press the **TARE** key. The display will show the Net weight (Gross minus tare) and the NET annunciator will illuminate.
4. Proceed with the counting or weighing operation.

Pre-set Tare with Container on Scale

1. With the scale in the Weight mode (0 is displayed on all displays), place the container on the scale.
2. Read the weight of the container.
3. Using the numeric keypad, enter the container weight.
4. After the container weight has been entered, press the **TARE** key. The display will show the Net weight (Gross minus tare) and the NET annunciator will illuminate.
5. Proceed with the counting or weighing operation.

To Clear the Tare

To return to a zero tare, simply remove all material from the scale platform and press the **TARE** key, which will reset the tare weight to zero.

OPERATION, Cont.

Quantity Preset Hi Limit

The scale can store a Quantity Preset Hi Limit value. The scale will beep and the unit weight window will display a blinking -Q.t y- if the quantity is over the Hi limit value set.

1. Press the **COUNT PRESET** key (items can be on scale or platform can be empty).
2. The Weight display will change to show dashes (- - - - -).
3. Using the numeric keypad, enter the Quantity Preset Hi Limit.
4. Press the **SAMPLE SIZE** key, followed by the **COUNT PRESET** key.
5. The scale will return to the Weight mode.

Weight Preset Hi Limit

The scale can store a Weight Preset Hi Limit value. The scale will beep and the unit weight window will display a blinking -WPST- if the weight is over the Hi limit value set.

1. Press the **COUNT PRESET** key (items can be on scale or platform can be empty).
2. The Weight display will change to show dashes (- - - - -).
3. Using the numeric keypad, enter the Weight Preset Hi Limit.
4. Press the **SAMPLE WEIGHT** key, followed by the **COUNT PRESET** key.
5. The scale will return to the Weight mode.

Clear the Quantity and Weight Preset Hi Limits

To clear the Quantity and/or Weight Preset Hi Limit, simply enter a “0” for the limit value.

CALIBRATION

Auto Calibration

1. With the scale in the Weight mode (0 is displayed on all displays), press and hold the • (decimal point) key, then press the **UNITS** key. When the Weight display shows dashes (- - - - -), release the • (decimal point) key.
2. The Weight display will begin to flash the scale full capacity and CAL. will be displayed on the Piece Weight display.
3. Place weights equal to the full-scale capacity on the scale platform.
4. When the scale is stable, it will calibrate automatically.
5. While the scale is counting back to zero, remove the weights from the scale.
6. The Calibration procedure is finished.

To exit the calibration mode <u>without</u> performing calibration, press the CE key.

If the full load of weight is not available, it is possible to calibrate the scale using a weight value of less than full load. Enter the weight value to be used and then place the weight on the scale, when the reading is stable the scale will automatically calibrate. While the scale is counting back to zero, remove all the weights from the scale. The Calibration procedure is finished.

Return Calibration to Factory Setting

1. With the scale in the Weight mode (0 is displayed on all displays), press and hold the **CE** key, then press the **UNITS** key. When the scale begins to count back to zero, release the **CE** key.
2. The scale is now back to the calibration value set at the factory and ready to use.

OPERATIONAL SETUP

Sampling Speed and Zero Display Mask (8)

1. Press the **ZERO** key. The Piece Weight display will show CEntr.
2. With CEntr displayed, press the **8** key on the numeric keypad.
3. The Piece Weight display will show SPEEd, while the Weight display will show the current setting of the Zero Display Mask and the Count display will show the current setting of the Sampling Speed.
4. To change the Zero Display Mask, press the **4** or **6** keys on the numeric keypad to select the desired value. **NOTE!** The factory setting is "0".

   Press **4** to select "0" (Normal Mode, 1st division is displayed)

   Press **6** to select "1" (1st division is displayed as a zero)

5. To change the Sampling Speed, press the **2** or **8** keys on the numeric keypad to select the desired value. **NOTE!** The smaller the number selected, the slower the sampling speed. The slower the sampling speed the more accurate the count. Values of 1 to 15 are allowed.

   Press **2** to Decrease the sampling speed

   Press **8** to Increase the sampling speed

6. Press the **COUNT PRESET** key to save the settings.
7. The scale will return to the Weight mode.

Accumulator Display Function (1, 1)

1. Press the **ZERO** key. The Piece Weight display will show CEntr.
2. With CEntr displayed, press the **1** key on the numeric keypad.
3. Weight display will show USEr 1. Piece Weight and Count displays will be blank.
4. Press the **1** key on the numeric keypad. The Piece Weight display will show nnPLU.
5. The Count display will show the current setting.
6. To change the Accumulator Display Function, press the **0**, **1**,or **2** keys on the numeric keypad to select the desired value.

   0 = Press the **M+** key to display the accumulator values. After 3 seconds the scale will automatically return to the weight or counting mode.

   1 = Press the **M+** key to display accumulator values. Press the **CE** key to return to the weight or counting mode.

   2 = Displaying of the accumulator values is DISABLED. The error beeper will sound when the **M+** key is pressed.

7. Press the • (decimal point) key to save the settings.
8. The scale will return to the Weight mode.

OPERATIONAL SETUP, Cont.

Pre-set Tare Function (1, 2)

1. Press the **ZERO** key. The Piece Weight display will show CEntr.
2. With CEntr displayed, press the **1** key on the numeric keypad.
3. Weight display will show USEr 1. Piece Weight and Count displays will be blank.
4. Press the **2** key on the numeric keypad. The Piece Weight display will show PtYP.
5. The Count display will show the current setting.
6. To change the Pre-set Tare Function, press the **0** or **1** keys on the numeric keypad to select the desired value.

   0 = Pre-set Tare function is not available if there is weight on the scale.

   1 = Pre-set Tare function is available (even with weight on the scale).
7. Press the • (decimal point) key to save the settings.
8. The scale will return to the Weight mode.

Pre-set Quantity Function (1, 3)

1. Press the **ZERO** key. The Piece Weight display will show CEntr.
2. With CEntr displayed, press the **1** key on the numeric keypad.
3. Weight display will show USEr 1. Piece Weight and Count displays will be blank.
4. Press the **3** key on the numeric keypad. The Piece Weight display will show QtYP.
5. The Count display will show the current setting.
6. To change the Pre-set Tare Function, press the **0** or **1** keys on the numeric keypad to select the desired value.

   0 = Pre-set Quantity is allowed only when weight on scale is stable.

   1 = Pre-set Quantity will be allowed even if weight on scale is unstable.
7. Press the • (decimal point) key to save the settings.
8. The scale will return to the Weight mode.

M+ Key Operation (1, 4)

1. Press the **ZERO** key. The Piece Weight display will show CEntr.
2. With CEntr displayed, press the **1** key on the numeric keypad.
3. Weight display will show USEr 1. Piece Weight and Count displays will be blank.
4. Press the **4** key on the numeric keypad. The Piece Weight display will show nnPtP.
5. The Count display will show the current setting.
6. To change the **M+** Key Operation, press the **0** or **1** keys on the numeric keypad to select the desired value.

   0 = M+ Key operation will be allowed only when weight on scale is stable.

   1 = M+ Key operation will be allowed even if weight on scale is unstable.
7. Press the • (decimal point) key to save the settings.
8. The scale will return to the Weight mode.

OPERATIONAL SETUP, Cont.

M+ Key Continuous Operation (1, 5)

1. Press the **ZERO** key. The Piece Weight display will show CEntr.
2. With CEntr displayed, press the **1** key on the numeric keypad.
3. Weight display will show USEr 1. Piece Weight and Count displays will be blank.
4. Press the **5** key on the numeric keypad. The Piece Weight display will show nnPb0.
5. The Count display will show the current setting.
6. To change the **M+** Key Continuous Operation, press the **0** or **1** keys on the numeric keypad to select the desired value.

   0 = After an **M+** key operation, the next **M+** key operation is allowed only after scale weight returns to zero.

   1 = After an **M+** key operation, the next **M+** key operation is allowed immediately, without scale weight returning to zero.
7. Press the • (decimal point) key to save the settings.
8. The scale will return to the Weight mode.

ERROR AND STATUS DISPLAYS

The Digital Counting Scale is equipped with a diagnostic software program that tests various portions of the instrument's circuitry and verifies proper operation. Should a problem be detected, an error or status message will be displayed alerting the operator to that condition. The following lists these errors and status displays and their meaning:

Display	Meaning
-QtY-	**QtY** – During a counting operation, this message is flashed to indicate the quantity of items on the scale exceeds the Quantity Preset Hi Limit value. The error beeper will also sound on and off.
-WPSt-	**WPSt** – During a counting operation, this message is flashed to indicate the weight of items on the scale exceeds the Weight Preset Hi Limit value. The error beeper will also sound on and off.
◄	**Left Arrow** - This symbol is used by the scale to indicate which annunciator is active. Note that this applies to the annunciator labels on the display overlay.
--OL-	**Over Load** - Indicates the scale weight capacity has been exceeded. The error beeper will also sound on and off until the Over Load condition is corrected.
SAmpP	**SAMP** - Indicates the scale is weighing the sample.
CEntr	**Centr** - Indicates the scale is resetting the weight on the scale to zero.
	**Low Battery** - Indicates the internal battery requires charging.

BEFORE YOU CALL FOR SERVICE

The Digital Counting Scale has been designed to provide you with years of trouble-free operation. In spite of this, troubles sometimes happen. Before calling for service assistance you should make some initial checks to verify that a problem does exist. The following describes several types of symptoms along with suggested remedies.

Problem	Possible Solutions
Display does not turn on	AC Operation: Is the AC power cord fully inserted into the wall receptacle? Check wall receptacle for proper AC power. Try another electrical appliance in the same receptacle, does it work? Check the circuit breaker. Has there been power failure. Battery operation: Check if battery is installed and installed correctly. Is battery discharged? Recharge or replace battery.
Incorrect weight displayed	Insure that the scale platform isn't touching an adjacent object. Have proper operation procedures been followed?