1. Enter the Quantity Alert function setup menu by pressing the **[QTY/SET]** button.
2. Once inside the setup menu, first set the lower quantity limit, indicated by a blinking "L". Type in the desired quantity using the number buttons only. *For example, for entering "100", press the buttons [1], [0], and then [0]; there is no "enter" key required.* If a mistake is made, press the **[PCS/SET]** button to clear the current entry. The alarm will sound when the QUANTITY is lower than this number, but will not sound when the QUANTITY equals this number.
3. When finished, press the **[ZERO]** button to switch to the setting for the upper quantity limit, which will be indicated by a blinking "H". Type in the desired quantity using the number buttons only, the same way as in step 2 above. Again, if a mistake is made, press the **[PCS/SET]** button to clear the current entry. The alarm will sound when the QUANTITY is higher than this number, and will also sound when the QUANTITY equals this number.
4. Press the **[TARE]** button to enable or disable the alarm. The first row will indicate the alarm status: "OH=OFF" means the alarm is disabled, while "OH=ON" means that it is enabled.
5. When the settings have been made, exit the Quantity Alert function setup menu by pressing the **[QTY/SET]** button.

*NOTE: This menu can be entered at any time for making settings, but the alert only functions when the scale is in Item Counting mode. **The Quantity Alert function must be set up each time the scale is powered on.***

6. ERROR ALERTS

LOW POWER – The "LOW BAT" message is displayed on the left side of the LCD screen when the battery voltage is low, indicating it needs to be recharged.

OVERLOAD – The alarm will sound, and the LCD screen will display "EEEEEE" in the first row when the weight on the platter exceeds the scale's maximum capacity.

UNIT WEIGHT – The LCD screen will display "EEEEEE" in the second row when the calculated single-item weight exceeds the maximum allowed by the scale, which is 100 grams (0.1 KG) for the ACCS-100, and 1000 grams (1 KG) for the ACCS-101.

7. BATTERY CHARGING

Please completely charge the scale's internal lithium battery the first time it is used, and recharge it whenever the "LOW BAT" message is displayed, or if the LCD screen becomes dim. To charge: plug the included 9V DC Power Supply (output = 9V, 300 mA min.) into an AC power outlet, and then insert its plug into the DC Power Jack on the left side of the scale. While the battery is charging, the Charge Indicator LED on the front of the scale will be red. When charging is complete, the LED will turn green. If, after charging the battery for at least 10 hours, it still will not work, then it has worn out, and should be replaced. Please replace it, or contact your local distributor, sales representative, or the American Changer Service Department.

NOTE: the scale may be used while the battery is charging.

COUNTING SCALES

ACCS-100

ACCS-101

OPERATION MANUAL

TABLE OF CONTENTS

WARRANTY

The ACCS-100 and ACCS-101 Counting Scales are under warranty for a period of 6 months from the original date of purchase.

Covered:
▪ Defects in workmanship or materials

Not Covered:
▪ Damage caused by physical abuse
▪ Misapplication
▪ Vandalism
▪ End-user's attempt to repair on own
▪ End-user's failure to follow recommended care and maintenance procedures

Revision: 5.20.08

1. GENERAL INFORMATION

The ACCS-100 and ACCS-101 counting scales are designed with highly sensitive weight sensors for precision counting of small objects, such as tickets and coins/tokens. Both units feature an internal rechargeable battery for utilizing the scale where an AC power outlet is not available. Before using your ACCS-100 or ACCS-101 scale, please take a moment to read carefully and understand this manual. This document will explain the proper operation and maintenance procedures for the machine.

Should you have any questions, please contact your local distributor, sales representative, or American Changer Corp. for further assistance. *NOTE: Please keep this manual readily available for future reference.*

2. PRODUCT DESCRIPTION

1. Platter	6. DC Power Jack
2. Keypad	7. ON/OFF Switch
3. Charge Indicator LED	8. 9V DC Power Supply
4. LCD Display Screen	9. Adjustable Feet (4)
5. Level	

5.4 MEMORY (ACCUMULATING) FUNCTION

When counting multiple sets of the same item, the ACCS-100 and ACCS-101 scales offer a convenient memory feature that allows for the storage and recall of up to 50 individual counts, and their accumulated total count. The following is the method for storing individual counts:

1. Set up the scale for use in Item Counting mode, as described in section *5.3* of this manual, using a sample of the items to be counted to set the UNIT WEIGHT, and selecting a coin value, if appropriate.
2. Place an unknown quantity of items on the scale, and wait for the word "STABLE" to appear on the left side of the LCD screen.
3. Press the **[M+]** button to store the current count information into memory. When the button is pressed, the screen will automatically display the new Count Record for five (5) seconds. The first row of the Count Record shows the two-digit record number, and the second row shows the item count, or subtotal.
4. Wait until the normal counting screen returns automatically, or press the **[ZERO]** button to return to it immediately. Repeat steps 2 and 3 above to measure and record additional counts, up to a maximum of 50.

To enter the Count Record Viewing mode for examining all of the saved Count Records, including the accumulated total count, perform the following:

1. To view the records, press the **[Total]** button on the keypad. On the screen that appears, the first row shows the record number, the second row shows the individual count corresponding to the current record number, the third row shows the accumulated (grand) total of all of the individual counts added together, and the fourth row shows the monetary value of the accumulated (grand) total count, if a coin value is selected.
2. The first Count Record that comes up will be the last one saved. Use the **[3]** and **[1]** number buttons to scroll up and down through the list of stored records.
3. To exit the Count Record Viewing mode, press the **[ZERO]** button.

Count Records will be held in memory until power is turned off, or the scale enters the "sleep" mode after 30 minutes of inactivity. To clear all of the saved Count Records manually, press the **[MC]** button. *NOTE: Make sure to manually clear the counts when changing items, in order to begin accumulating again from zero (0) and prevent intermixing of the stored records.*

5.5 QUANTITY ALERT FUNCTION

As an extension of the Item Counting mode, ACCS-100 and ACCS-101 scales include a feature that will sound an alarm when the current QUANTITY falls outside of user-set upper and lower limits. This feature can be useful for counting out multiple batches of a specific quantity for packaging, perhaps, or for inspecting batches of pre-counted items to verify the accuracy of their quantities. The following describes how to set the upper and lower limits, and how to enable and disable the Quantity Alert function:

Since it is a battery-powered device, after the scale has been idle for a while, it will automatically take steps in order to conserve power. These steps are:

1. **Turn Backlight Off** – After three (3) minutes of inactivity, the LCD screen's backlight will turn off. Change the weight on the platter, or press any button to turn the backlight back on.
2. **Shut Down** – After 30 minutes of inactivity, the scale will shut down, and enter a "sleep" mode. Press any button the "wake" the scale up. *NOTE: When the scale enters "sleep" mode, its internal electronics are reset, so the UNIT WEIGHT setting and any saved Count Records will be lost.*

5.3 ITEM COUNTING

ACCS-100 and ACCS-101 scales have been specifically designed for counting items. To accomplish this, the scale must know the exact weight of a single item, i.e. the UNIT WEIGHT. The scale determines the item's UNIT WEIGHT using a sample of known quantity of the items to be counted. The following is the method for setting up the UNIT WEIGHT:

1. Prepare the scale for operation by following the steps explained in sections *5.1* and *5.2* of this manual.
2. Place at least 100 pieces* of the item to be counted onto the scale, and wait for the word "STABLE" to be displayed. The total weight for these items will be displayed on the first row, WEIGHT.
3. Using the number buttons on the keypad, enter the exact quantity of items in the sample used, and then press **[PCS/SET]**. *For example, if you placed 150 items on the scale, press the buttons [1], [5], and [0], followed by [PCS/SET].*
4. The second row, UNIT WEIGHT, will now display the single-item weight calculated by the scale. *NOTE: Units of grams will be used for the UNIT WEIGHT regardless of the units chosen to display the total WEIGHT.*

   * If the sample quantity is too few, or the single-item weight too small, the "ADD MORE" message will be displayed on the bottom left corner of the LCD screen. A minimum of 100 pieces, each with a minimum weight of 0.15 grams (ACCS-100), or 1.5 grams (ACCS-101), is underlined recommended. The scale will still function if these criteria are not met, but the count accuracy will be diminished.

Once the UNIT WEIGHT is set, counting may begin. Place any unknown quantity of items on the scale, and the count will be calculated and displayed on the third row, QUANTITY. To set up a new UNIT WEIGHT, press the **[SET/CLEAR]** button to clear the current one. *NOTE: The UNIT WEIGHT must be set up each time the scale is powered on.*

For counting coins, the ACCS-100 and ACCS-101 scales have an additional feature that will calculate the monetary value of the counted coins, and display it in the fourth row, TOTAL VALUE. To activate this feature, press the **[COIN/VALUE]** button until the icon shown on the left side of the LCD screen matches the coin being counted.

None → (0.05) → (0.10) → (0.25) → (1.00)

3. KEYPAD FUNCTIONS

NUMBERS (0-9) – These buttons are used to enter numbers when necessary, e.g. for setting up the UNIT WEIGHT, or for configuring the Quantity Alert function. In addition, the **[1]** and **[3]** buttons are used to scroll between individual records while in the Count Record Viewing mode.

DECIMAL POINT (.) – This button is used to insert a decimal point when entering numbers.

PCS/SET – Press this button to change the unit of weight from kilograms (KG) to pounds (LB), or vice versa. This button is also used to enter the sample quantity when setting up the UNIT WEIGHT for counting operations, and for clearing the low (L) or high (H) setting in the Quantity Alert function setup menu

MC – Use this button to clear the scale's memory of all Count Records.

M+ - When this button is pressed, the current QUANTITY shown on the LCD display is saved into memory, and assigned the next available record number.

TOTAL – Press this button to enter the Count Record Viewing mode for examining all of the saved Count Records.

COIN/VALUE – When counting coins, utilize this button to select the unit coin value used for calculating the TOTAL VALUE of counted coins.

SET/CLEAR – When in Item Counting mode, press this button to clear the current QUANTITY and UNIT WEIGHT.

ZERO – This button is used to toggle between setting the low (L) and high (H) limits in the Quantity Alert function setup menu. It is also used for exiting the Count Record Viewing mode.
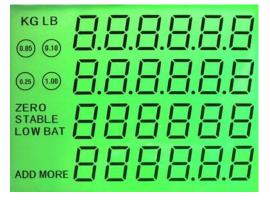
TARE – Press this button to reset the WEIGHT to zero (0), for automatically deducting the container weight from the gross weight on the platter. This button is also used in the Quantity Alert function setup menu to turn the Quantity Alert function on and off.

QTY/SET – Use this button to enter and exit the Quantity Alert function setup menu.

4. LCD DISPLAY

WEIGHT (1st ROW) – When in normal weighing and Item Counting modes, this row displays the net weight of the item(s) on the platter. When viewing the Count Records stored in memory, this row displays the current record number.

UNIT WEIGHT (2nd ROW) – When in Item Counting mode, this row displays the calculated weight, in grams, of a single item being counted. When viewing the Count Records stored in memory, this row displays the individual count, or subtotal, corresponding to the current record number.

QUANTITY (3rd ROW) – When in Item Counting mode, this row displays the number of items on the platter, calculated using the set UNIT WEIGHT. When viewing the Count Records stored in memory, this row displays the accumulated (grand) total of all of the individual counts added together.

TOTAL VALUE (4th ROW) – When counting coins in Item Counting mode, this row displays the total value of the items on the platter, calculated using the selected unit coin value. When viewing the Count Records stored in memory, this row displays the monetary value of the accumulated (grand) total count.

KG/LB – One of these two icons will be displayed at all times to indicate the current unit of weight being used. The measured WEIGHT can be displayed in either kilograms (KG) or pounds (LB).

X.XX – This icon indicates the current unit coin value being used to calculate the TOTAL VALUE.

ZERO – This word is displayed when the weight on the platter equals the "zero weight" measured when the scale was powered on, regardless of any tare weight.

STABLE – This word is displayed when the platter has stabilized after items were put on or taken off of it, changing the current weight. It indicates the scale is "ready".

LOW BAT – This message is displayed when the battery voltage is low, indicating it needs to be recharged.

ADD MORE – This message is displayed when, in Item Counting mode, either the sample quantity used to calculate the UNIT WEIGHT was less than 100 pieces, or the calculated UNIT WEIGHT is less than 0.15 grams for the ACCS-100, or 1.5 grams for the ACCS-101.

5. OPERATING PROCEDURES

5.1 SETUP

When the scale is first taken out of the box, please completely charge its internal lithium battery. Plug the included 9V DC Power Supply into an AC power outlet, and then insert its plug into the DC Power Jack on the left side of the scale. *NOTE: the scale may be used while the battery is charging.* Charging is complete when the Charge Indicator LED on the scale's front panel turns green.

In order to obtain accurate readings, the scale's platter must be exactly horizontal. To verify this, observe the Level on the front of the scale, to the left of the LCD Display Screen. Adjust the four Feet underneath the scale, by screwing them in or out, until the bubble in the Level forms a "bull's-eye" in the center of the red circle.

GOOD → ⊙   **ADJUST →** ⊙

Turn the power ON, using the switch located on the left underside of the scale. The LCD Screen will display a countdown (9…8…7……0) while the scale's internal electronics are initializing. The scale is ready to use when the countdown finishes, and the word "STABLE" is shown on the left side of the screen.

5.2 STANDARD WEIGHING PROCEDURES

Once the scale's power is on, and the word "STABLE" is being displayed, items may be added to the platter for weighing. First, select the units that you want the WEIGHT to be displayed in. Press the **[PCS/SET]** button to toggle between pounds (LB) and kilograms (KG). The current setting will be shown in the top left corner of the display. *NOTE: 1 KG = 1000 grams = 2.205 LB.*

If you are weighing items inside of a container, the container's weight needs to be subtracted from the overall weight, so that only the items' weight is measured. To do this, first put only the empty container onto the platter. Then, once the word "STABLE" is displayed on the LCD screen, press the **[TARE]** button. The WEIGHT will reset to zero (0), and the scale is now ready for weighing.

Do not exceed the maximum weight capacity of the scale, which is 7 KG (15 LB) for the ACCS-100 model, or 30 KG (66 LB) for the ACCS-101 model.

NOTE: The container (tare) weight must be taken into account to prevent exceeding the scale's maximum weight capacity. For example, with an ACCS-100 model scale, the capacity is 7 KG. If the weight of the container used is 0.5 KG, then the maximum item weight that can be applied to the scale is 6.5 KG.