Kitrics® Digital Nutritional Scale

Instruction Manual
Quick Start Instructions

The following sequence will be used whenever you input information into your scale:

1. Press the power key; the three digit food code will be blinking.

2. To use a plate or other container to weigh food, put empty plate and/or container on scale. Press TARE.

3. Find the desired food code in the food code booklet. Enter the 3 digit food code number.

4. Put food on the scale: calculations will appear in the display window.

5. Press SAVE to store nutritional data into the cumulative total.

6. Press TOTAL to view stored nutritional information. Press TOTAL again to exit total mode.

7. To weigh another food item, press CLEAR and repeat steps 2 through 4.
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Introduction

Welcome to your new Kitrics® scale - a state-of-the-art Nutrition Scale that weighs your food and simultaneously calculates the values of 10 key nutritional elements:
- Calories
- Calories from Fat
- Carbohydrates (in grams)
- Protein (in grams)
- Fat (in grams)
- Saturated Fat (in grams)
- Fiber (in grams)
- Sugars (in grams)
- Cholesterol (in grams/milligrams)
- Sodium (in grams/milligrams)

Note that a glossary has been provided on page 9.

The Kitrics® nutritional scale is designed to serve the needs of health conscious individuals who want to establish and maintain a healthy lifestyle. This means making a gradual change in your eating habits - becoming increasingly conscious of what you choose to eat and the implications for your health and sense of well being.

Although the Kitrics® nutritional scale provides a convenient way to create a nutritious diet, perhaps a more important function is to help those who use it to monitor and manage food choices and portion sizes day by day. As the scale helps you to become familiar with the nutritional content of many common foods, you can learn to make decisions with confidence at the grocery store, in restaurants and other places where the scale isn’t available. Our idea of portion size has been exaggerated by the huge quantities of food often served in restaurants. The scale will show the relationship between portion size and calorie and nutrient content and allow you to make better nutrition decisions for your family.

The Kitrics® nutritional scale is a highly sensitive and accurate piece of equipment. It can measure the nutritional values for individual foods or entire meals. The scale also calculates and stores cumulative nutrient totals. Users may want to keep a journal to record their daily nutritional intake over time and to share the information with their physician or nutrition professional.
Getting to Know Your Scale

- **Operating Modes** - the Kitrics® scale can be in one of the following three operating modes: NORMAL, PROGRAM, or TOTAL.

  - NORMAL mode is the standard operating mode which the scale enters when turned on. In this mode you can enter a food code and weigh items.
  - PROGRAM mode is used to enter user defined, custom food codes. This mode is entered by holding down the SET key for 3 seconds.
  - TOTAL mode is entered and exited by pressing the TOTAL key. Note that "TOTAL" will be shown near the top right corner of the display when in this mode. This mode is useful for displaying cumulated nutritional information over the course of a day for example.

- **The Display** - the Kitrics® scale displays the 10 different nutritional values described previously and the weight in grams or pounds and ounces.

  The food code number for the food being weighed also appears in the display window.
- **The Keypad** - includes 17 keys, which allow you to select functions, enter numbers (such as those representing food codes), and toggle (switch back and forth) between certain functions. Each function will be explained in detail in the following list.

- **Power** button: Used to turn the scale on and off. Number keys 0-9: To enter numbers as required.
- **SAVE** key: Press SAVE to store the nutritional information shown on the display to the nutritional information cumulative total. This is helpful for tracking nutritional intake over time.
- **CLEAR** key: The CLEAR key has three functions.
  1) Press CLEAR in NORMAL mode to clear the current food code. The three digit food code number will flash to signify the scale is ready to accept another food code entry.
  2) It is used to clear entries. All entries repeatedly flash on and off when the scale is ready to accept input in a particular field. Press clear to zero any blinking field.
  3) Press and hold CLEAR for 3 seconds when in TOTAL mode to clear the stored cumulative total.
- **SET** key: The SET key has two functions.
  1) Press SET and enter a two digit number to retrieve a user defined, custom food code.
  2) Press and hold SET for 3 seconds to enter a user defined, custom food code for up to 99 of your most commonly consumed foods.
- **G/OZ** key: used to toggle between metric (g) and English (lbs/oz) units of measure.
- **TARE** key: The TARE function allows you to omit the weight of a container and weigh only the food within it.
- **TOTAL** key: used to toggle between NORMAL and TOTAL Modes when operating the scale.

**Remove Packing Materials** - Be sure to remove the two black foam packing pads from under the Kitrics® scale platform before using your scale for the first time.
Scale Functions

_Turning the scale on and off_ - Be sure the scale is on a clean, flat surface. Push the large silver Power button once to turn on the scale. Push it again to turn it off. If you don’t make an entry for several minutes, the scale turns itself off automatically.

Setting tare weight - "Tare" is the weight of an empty container. If you use the TARE function, the weight of the container will be omitted thereby providing the nutritional values calculated based only on the weight of the food - not the food AND container. Simply stated, when you put an empty container on the scale and press the TARE key, it returns the weight registered on the scale to zero. Then, when you place food in the container, only the food is weighed.

Many foods, such as whole apples, may be weighed directly on the scale, so there is no need to set a tare weight. Other foods that are liquid and items such as cottage cheese or apple sauce must obviously be placed in a separate container before being set on the scale. Whenever a separate container or wrapper is used, you must set the tare weight of the empty container first.

To set the tare weight, first set an empty container on the metal platform and press the TARE key. The scale will display a "0" next to the WEIGHT heading in the display window and the display will show "TARE SET". When you remove the empty container to put food in it, the scale’s weight reading will be blinking a negative number. Whenever the words TARE SET is displayed, the food you are weighing must be in the container for which the "tare weight" has been previously set before you place it back on the scale. **NOTE: With each different container you use, you must set a new tare weight.**

Weighing items - When a food item is placed on the scale, its weight will automatically appear next to the WEIGHT heading in the display window. The weight can be displayed in either grams or pounds/ounces. To select one or the other, press the G/OZ key until desired unit of measure is selected. You will select the appropriate codes for foods from the Food Code booklet.
**Entering food codes** - The food code is entered to tell the scale what is being weighed. Each food has been assigned a code number from 000 to 999. Find the food you want to weigh in the Food Code Booklet, arranged by category. Enter the Food Code number when the three digit Food Code number is blinking on the display. The display will show the nutrient value for the amount of food you have placed on the scale. NOTE: If no food code has been entered, the nutrient values will not be displayed, except when in the TOTAL mode (see below for more information on cumulative data).

**Computing periodic totals** - Your scale allows you to keep a running total of your nutritional intake by using the TOTAL function. NOTE: The TOTAL function is active when the word TOTAL appears near the upper right corner of the display. The TOTAL toggles between the display of cumulated totals and the nutrient values of the current food being weighed. When in the TOTAL mode, only the CLEAR function is available. You must always exit the TOTAL mode by pressing TOTAL again before you can access other functions. TIP: The word TOTAL will not be visible near the upper right corner of the display screen once you have exited the TOTAL mode.

**To add to the cumulative food total:** With the food on the scale and the nutrients displayed, press the SAVE key. Press TOTAL to toggle into the TOTAL mode. Review the cumulative food total. Press TOTAL again to return to NORMAL mode.

**To clear the total:** Press the TOTAL key to enter the TOTAL mode. Press and hold the CLEAR key for 3 seconds to zero the total. (You would typically clear the totals before making the first entry of the day.)

**Computing a meal** - When you have learned how to compute totals, you can use the TARE function to compute the nutrient value for several food items from a cooked meal by adding them to a plate (or other container) one at a time. Our example will be for a cooked meal of salmon, broccoli and a baked potato, to be served on a plate. Make sure that the Total has been cleared before you begin. First, place the empty plate on the scale and press the TARE key. The scale will show "0" next to WEIGHT. Next, place the salmon on the plate and enter its code (657). Then press SAVE to store its nutrient values. Next, press TARE again, and the weight will return to zero (but the appropriate nutrient values for the fish have been stored in the scale's memory). Now add the next item (e.g., broccoli) to the plate, press CLEAR, enter its food code (879), and press SAVE again to add the nutrient values of this second item to those stored for the first food item. Repeat until all the foods for your meal have been added to the plate and saved. To complete the calculations, press TOTAL and the nutrient values for your entire meal will be displayed.
**Adding nutrient values from other sources** - (Programming your own, custom food codes) There will, of course, be times when you would like to incorporate items that are not included in the food code list. The Kitrics® scale allows you to store up to 99 user defined, custom food codes. It is best to use these entries for items that are commonly consumed. Also, it is recommended that you record your custom entries in the back of the food code book using a permanent marker for your future reference.

To program a custom entry you will need the nutritional information commonly found on the food’s Nutrition Facts label. The Nutrition Facts label looks similar to the digital display on your Kitrics® scale (see page 2) and is typically printed on the food’s packaging. Note that the nutritional information is given in grams and represents the amount per serving. The weight of one serving is called the serving size which is also measured in grams. Follow the simple procedure below to store this information in your Kitrics® scale.

1. When in NORMAL operating mode press and hold SET for 3 seconds to enter PROGRAM mode. The scale will beep twice and the scale’s display will become blank except for the Food Code which will be showing "U" and a blinking "00". Note that blinking digits indicate that the scale is ready to accept user input.

2. Enter the two digit (01-99) custom food code number you would like to store and press SET. CLEAR can be used at anytime to zero the entry. The scale will beep and the 9 nutrient values along with the Weight (per serving) will appear for programming.

3. Enter the 9 nutrients (Calories, Total Fat, Saturated Fat, Cholesterol, Sodium, Total Carbohydrates, Dietary Fiber, Sugars, and Protein) when prompted by their associated, blinking digits. Enter these amounts in grams exactly as they are listed in the Nutrition Facts label.
   a. Press CLEAR to reset an entry to zero.
   b. Enter the amount in grams.
   c. Press SET to store the current entry and move to the next entry.

4. After SET has been pressed to store the final nutritional entry (Protein), the scale will begin blinking the four digits next to Weight. This is the weight of an individual serving size. Enter the weight of the serving size in grams.

5. After SET has been pressed to store Weight per serving size, the scale will calculate the nutrition information per 100 grams, store these calculated values in the scales memory, beep twice, and return to the NORMAL operating mode. The custom entry is now ready for your use.
Using the custom food codes - To make use of the nutrient values programmed in the preceding section, make sure the scale is in the NORMAL operating mode and ready to accept a food code entry. The scale is ready when the food code digits are blinking. Press SET. The Food code will now show a steady "U" and a blinking "00". Enter the two digit user code from 01 to 99. Proceed as when using a standard food code entry.

Caring for your scale

Cleaning - Your scale is not waterproof. Never immerse scale in water or place it in a dishwasher. To clean the scale itself, use a mild dishwashing detergent on a damp cloth or sponge to remove spills and residue from the smooth, sanitary surface.

Changing the battery - Your scale uses two AA batteries. To change the batteries, open the battery door on the bottom of the scale, remove the old batteries and replace them with the + end oriented as shown in the battery compartment. Replace the battery door.

Caution:
1. Do not mix old and new batteries
2. Do not mix Alkaline, Standard (Carbon-zinc), or Rechargeable (Nickel Cadmium) batteries.
* Please dispose of used batteries properly.
Manufacturer’s Warranty

Your scale is warranted by the manufacturer against defects in materials and workmanship for one year from the date of purchase. The warranty is void if the product has been subjected to mechanical damage or mistreatment, such as immersion. This warranty is in lieu of all other warranties, and limits the liability of the manufacturer. This warranty gives you certain rights. You may have other rights depending upon the state in which you purchased this product. If your scale is defective, please contact DMD, LLC toll-free at (866) 991-8494 to obtain a return materials authorization number (RMA #). After obtaining an RMA #, send the scale along with proof of purchase to DMD, LLC (1240 Dielman Industrial Ct. St Louis, MO 63132). A replacement scale will be provided.

Use of Data

The scale contains data derived directly from a US Department of Agriculture Data Base. While the scale is very sensitive and highly accurate, the nutritional content of foods can be variable. The data given is presumed to be accurate for the sample the Government tested, but there can be significant variability in samples of the same types of food. For example, chocolate cake may be quite different because recipes vary from family to family and bakery to bakery. Similarly, the sugar content of fruits can vary considerably. On the other hand, certain quality-controlled foods, such as milk, won't vary much in nutritional content, and others, such as butter, are naturally uniform.

For these reasons, the nutritive values displayed by the scale should be considered as a very useful guide to good nutrition, but not as an absolute measure. In most cases, the accuracy will be sufficient to support your dietary requirements. However, we cannot assume any liability related to the accuracy and completeness of the information provided, nor to the way in which the information is used by the consumer. Before beginning any diet management program, users should consult with their physician or a registered dietitian.
Glossary

Nutritional Terms

Overview
Your body depends on the food you eat to provide nutrients. Nutrients are chemical substances found in foods that are essential for life processes like breathing, thinking and digestion. The nutrients found in food are vitamins, minerals, water, fat, protein, and carbohydrates. All foods contain some combination of these nutrients. Only three nutrients supply calories: protein, fat and carbohydrates. Vitamins, minerals and water do not supply calories. The following defines the nutrients whose values are calculated by the scale, as well as other terms the user may not be familiar with. The definitions will be found in alphabetical order.

1. Bread Equivalent - Term used by diabetics to calculate equivalent starch units. Bread equivalents are the same as starch in foods such as rice, pasta, potatoes, some squash and cereal. One bread unit (slice) = 70-80 calories (weighs approximately 1 ounce).

2. Calorie - A calorie is a basic unit used to measure the energy contained in food. Most foods have calories in a food, the more energy it supplies.

3. Carbohydrate - Carbohydrates are the body's primary source of readily available energy. The main forms of carbohydrate are sugars and starches. Sources of simple carbohydrates include table sugar, candy and refined flour products. Complex carbohydrates include starches like oatmeal, high fiber cereals and whole wheat flour products. Together simple and complex sugars are broken down in the body into glucose. Glucose is the preferred type of energy used by vital organs and, especially, the brain. Each gram of carbohydrate provides four calories of energy.

4. Cholesterol - A wax-like substance that is not soluble in water. There are two different types of cholesterol: a blood (serum) form and a dietary (food) form. \textit{It is important to know that cholesterol is not only consumed in the diet, but also produced in the body. Studies show that lowering the amount of low cholesterol food in your diet is not nearly as effective in lowering blood cholesterol as eating less saturated fat, because some foods which are "cholesterol free" can still be high in fat.}
Dietary cholesterol is found in foods of animal origin such as egg yolks, organ meats and higher fat dairy products. Blood cholesterol occurs naturally and is necessary for the body to produce steroid hormones like estrogen and testosterone. Cholesterol maintains the outer structure of cells and is also required to produce substances called bile acids that aid in the break down fats.

Eating foods high in dietary cholesterol and saturated fat may increase the level of blood cholesterol. A high level of cholesterol in the blood has been shown in studies to be a major risk factor for heart disease. Plant-based foods such as fruits, vegetables, grains, legumes (beans, peas and lentils) do not contain cholesterol.

5. **Fat** - Fats occur naturally in foods and play an important role in nutrition. Fats, oils and some foods like nuts (e.g., peanuts, walnuts and almonds) are a concentrated source of energy for the body. Fats store energy in the body, protect tissues and transport fat-soluble vitamins in the blood. Fat is found in meats, fish, and meat substitutes, breads, starches and some dairy products. Fat supplies nine calories per gram, twice as many as protein or carbohydrate.

6. **Saturated fat** - is found chiefly in animal sources such as meat, poultry, milk and butter. Some tropical vegetable oils like coconut, palm kernel and palm oils, are also rich in saturated fats. Studies show that eating less total fat in the diet and especially saturated fat is one of the most effective ways to lower blood cholesterol.

7. **Fiber** - A form of carbohydrate that is not digestible in the body. While carbohydrates have a big impact on blood sugar, fiber does not. Fiber gives a feeling of fullness and causes a person to feel less hungry. Foods such as beans, fruits and vegetables (especially their skins) and whole grains are an excellent source of dietary fiber and also contain many nutrients. If you eat more fiber it is important to drink more water To avoid bloating. Fiber contributes about 1.5 to 2.5 calories per gram.
8. **Gram** - A unit of mass in the Metric system. There are about 30 grams in an ounce. One gram of carbohydrate or protein contains about 4 calories and 1 gram of fat contains about 9 calories. A milligram is one-thousandth of a gram.

9. **Ounce** - A unit of mass in the "English" system. There are 16 ounces in a pound. An ounce is equal to approximately 30 grams.

10. **Protein** - Contains complex chains of amino acids necessary for conducting a variety of body functions, such as building tissues, making important body chemicals (e.g., enzymes and hormones) and maintaining growth and repair processes. While many plant-based foods contain some protein, including beans, peas, vegetables, nuts and seeds, these foods do not contain all the essential amino acids. Other protein sources from animals, such as meat, fish, poultry, eggs, and dairy products (milk, cheese and yogurt) are considered higher in protein content since they contain all essential amino acids. Each gram of protein provides four calories of energy.

11. **Sodium** - A naturally occurring mineral needed by the body to maintain life and found mainly in sodium chloride (table salt). Sodium occurs in many forms such as in sodium bicarbonate (baking soda) and monosodium glutamate (MSG). Sodium is especially important in the diet because of its effect in conserving water. Certain foods are naturally higher in sodium, such as celery, buttermilk, and some cheeses. Others, like canned or processed foods, have higher levels due to the salt added in processing. High intakes of dietary salt may contribute to high blood pressure or to your body retaining too much water.

12. **Sugars** - There are several forms of sugars found naturally or incorporated into foods, which vary slightly in chemical composition, but are very similar in nutritional value. The value for SUGARS shown by the display is a composite of all types of sugars in the food item. Sugar is a form of carbohydrate. (see Carbohydrate, above)
13. **Tare** - the weight of a food wrapper or empty container, bowl or jar. To set the tare, the container must first be weighed alone before filling it with food to be weighed (see "Setting tare weight" on page 3 for more information).

14. **Toggle** - to switch back and forth between functions on the keypad by pushing a particular key.

15. **Water** - A nutrient required for all cells in the body to function. The adult body is approximately 70% water.

**Features**

1. Scale plus nutritional computer
2. Store up to 99 custom food entries
3. Retrieve up to 999 pre-selected food entries
4. Informative nutrition facts display
5. Displays 10 important nutritional facts of weighed foods: calories, calories from fat, carbohydrates, protein, total fat, saturated fat, dietary fiber, sugars, cholesterol, sodium
6. Nutrition values derived from U.S. government's nutritional database
7. Slim design
8. Low battery indicator
9. Auto power off
10. English (oz) and Metric (g) measurements

**Specifications**

1. Battery: AA x 2
2. Maximum weight: 2 kg / 72 oz / 4.5 lbs
3. Graduation: 1 g / 0.05 oz

For more information, please contact us at:
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