



***MARINER***  
**MODEL WPS10**  
**WATERPROOF DIGITAL**  
**PORTION SCALE**  
**OWNER'S MANUAL**

8528-M405-O1 Rev A      07/13  
CARDINAL SCALE MFG. CO.  
PO BOX 151 • WEBB CITY, MO 64870  
PH (417) 673-4631 • FAX (417) 673-5001  
[www.detectoscale.com](http://www.detectoscale.com)

Technical Support: Ph: 866-254-8261 • [techsupport@cardet.com](mailto:techsupport@cardet.com)



# INTRODUCTION

Thank you for purchasing our Detecto Model WPS10 Waterproof Digital Portion Scale.

This manual will guide you through installation, 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

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.

All rights reserved. Reproduction or use, without expressed written permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein.

While every precaution has been taken in the preparation of this manual, the Seller assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from use of the information contained herein. All instructions and diagrams have been checked for accuracy and ease of application; however, success and safety in working with tools depend to a great extent upon the individual accuracy, skill and caution. For this reason the Seller is not able to guarantee the result of any procedure contained herein. Nor can they assume responsibility for any damage to property or injury to persons occasioned from the procedures. Persons engaging the procedures do so entirely at their own risk.

<b>Serial Number</b> _____ <b>Date of Purchase</b> _____ <b>Purchased Form</b> _____   <p style="text-align: center;">RETAIN THIS INFORMATION FOR FUTURE USE</p>
---

# TABLE OF CONTENTS

Installation .....	1
Unpacking .....	1
Power Supply .....	1
Battery Pack.....	1
Battery Charging .....	1
Low Battery .....	1
Display Annunciators .....	2
Key Functions .....	3
Operation .....	4
Configuration .....	5
Gravity Compensation .....	6
Display Messages .....	7
Care and Maintenance .....	7

# SPECIFICATIONS

Weight Display:	5Digits, Height 24.3mm, HTN
Dimensions:	187mm x 246mm x 57mm
Platform Size:	184 mm x 172mm
Zero:	Established on power up routine and maintained by auto-zero circuitry.
Power:	AC adapter: 120 VAC input 9v, 100mA output  Battery: Ni-MH rechargeable 4.8 VDC 1800 mA
Tare:	100% of full scale capacity
Temperature Operation: Storage:	40 to 105°F (5°to 40°C) 140°F (60°C) Maximum
	10lb x 0.1oz, 10lb x 0.005 lb, 10lb x 1/8 oz, 160 oz x 0.05 oz 160 oz x 18 oz, 5000g x 1 g
Keys:	ON/OFF, TARE, UNITS/Back Light, SET
Features:	IP67

## PRECAUTIONS

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



IMPORTANT



ELECTRICAL  
WARNING



# INSTALLATION

## UNPACKING

Before beginning installation of your scale, make certain the instrument has been received in good condition. When removing the scale from its packing, inspect it for signs of damage, such as exterior dents and scratches. 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.

1. Remove the scale from the shipping carton and inspect it for any signs of damage.
2. Plug-in the adapter to use the scale and begin charging the battery pack. Refer to the POWER SUPPLY or BATTERY PACK sections of this manual for more instruction.
3. Place the scale on a flat level surface, such as a table or bench.
4. The scale is now ready for use.

## POWER SUPPLY

To apply power to the scale using the supplied power supply, insert the plug from the power supply cable into the power jack on the side of the scale and then plug power supply into the proper electrical outlet. The scale is now ready for operation.



## BATTERY PACK

The scale uses a 4.8 VDC, 1800 mA built-in rechargeable battery pack. The WPS10 can operate for up to 80 hours of continuous use with a fully charged battery pack.

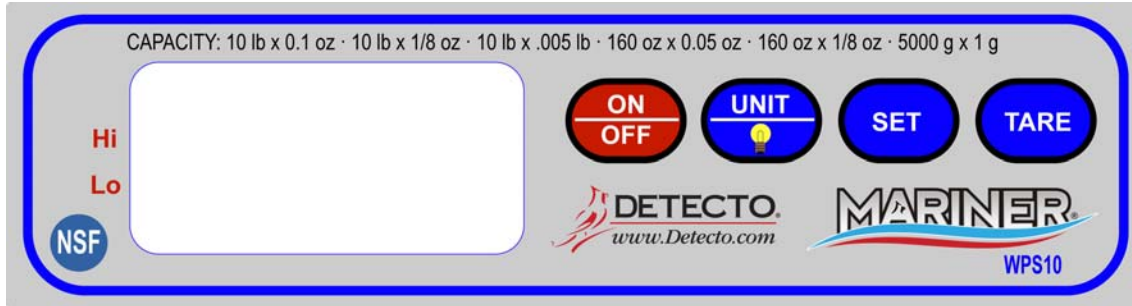
## BATTERY CHARGING

To recharge the battery pack, the power supply must be connected to an AC power outlet and plugged into the scale. It will take approximately 5 hours to fully recharge the battery pack in the scale. While the batteries are charging the WPS10 can still be operated. Note that charging the battery pack for more than 12 hours *will not* damage it.

## LOW BATTERY

When the battery pack is near the point it needs to be recharged, a low battery indicator on the display will turn on. If the battery voltage drops too low for accurate weighing, the scale will automatically shut off and you will be unable to turn it back on. When the low battery indicator is displayed, the operator should plug the power supply into the scale and then into the proper electrical wall outlet. The scale will begin charging the battery pack.

# DISPLAY ANNUNCIATORS



The annunciators are turned on to indicate that the scale display is in the mode corresponding to the annunciator label or that the status indicated by the label is active.



The O annunciator is turned on when the weight display is stable.

## **lb**

The lb annunciator is turned on to indicate that the displayed weight is in pounds.

## **oz**

The oz annunciator is turned on to indicate that the displayed weight is in ounces.

## **lb oz**

Both the lb and oz annunciators are turned on to indicate that the displayed weight is in pounds and ounces.

## **g**

The g annunciator is turned on to indicate that the displayed weight is in grams.



The low battery annunciator is used with the battery operation. It will turn on to indicate that the batteries will soon need to be recharged.



Low limit setting annunciator



High limit setting annunciator

# KEY FUNCTIONS

## UNITS /

1. Press to change the weighing units to the alternate units of measurement (if selected during configuration of the scale).
2. Press and hold three (3) seconds to turn display back light on or off.-

## TARE

1. Press to reset the displayed weight to zero up to 100% of the scale capacity.

## ON/OFF

1. Press and release to turn on scale.
2. Press and release to turn the scale off.

# OPERATION

## TURN THE SCALE ON

Press the **ON/OFF** key to turn the scale on.

The scale will display all display segments then change to zero weight.

## SELECT THE WEIGHING UNIT

Press the **UNITS** key to alternate between the selected weighing units. **NOTE:** Multiple weighing units must be enabled during configuration for this function to be operational.

## WEIGH

Place the item to be weighed on the scale tray. Scale will display item weight.

## TO RE-ZERO THE WEIGHT DISPLAY

To Zero or Tare the weight display, press the **TARE** key and continue. The scale will re-ZERO / TARE until the full capacity is reached.

## TARE

To weigh ingredients in a container you must first TARE the weight of the container so that only the net weight of the ingredient is displayed.

1. Place empty container on scale platform while scale is OFF
2. Turn scale on. Display will show zero weight.
3. Add ingredient to container. Scale will display weight of ingredient.
4. To weigh additional ingredients, press **TARE** before adding each ingredient.
5. To display the total weight of ingredients press the **SET** and **TARE** keys at the same time.
6. Note that upon removing the container and ingredients the scale will display a negative weight. Press the **TARE** key to return the scale to zero.

## HIGH / LOW WEIGHT CHECKING

The scale may be set to alert you when either over or under a set limit.

1. Press and hold the **TARE** key for 3 seconds. The scale will beep and display the low weight annunciator
2. Place weight equal to low weight limit on scale and press **SET**. Scale will beep indicating low limit is set. Scale will display the high weight annunciator.
3. Add weight to scale until weight is equal to desired high weight limit. Press **SET**. Scale will beep indicating high limit is set. Remove weight from scale.

The scale will now beep and display will indicate if item placed on scale is over or under the set limits.

To clear the HIGH / LOW settings, press **SET** and **TARE** keys at the same time



**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.**



# CONFIGURATION

The Scale has been pre-configured at the factory and should not require configuration for use in most applications. In the event that the factory settings do not meet the requirements of your application, the following describes the steps to configure the scale.

## TO BEGIN CONFIGURATION:

1. Press the **ON/OFF** key to turn on the scale.
2. Press and hold the **SET** key for 3 seconds. When the display shows **SEt**, release the **SET** key to enter the Configuration mode. The display will change to show **Unit**.

## WEIGHING UNITS

To select "lb/oz" (pounds/ounce) weighing units (10 lb x 0.1 oz):

1. With the display showing **Unit**, press the **SET** key. The display will change to show "g" and the status ( **On** or **OFF** ).
2. Press the **UNIT** key to toggle between:  
Enable (display will change to **On**) or  
Disable (display will change to **OFF**).
3. Press the **SET** key.
4. Repeat above steps for each weighing unit mode :
  - g = grams (5000g x 1 g)
  - lb oz = pound ounces (10 lb x 0.1 oz)
  - lb oz 1/8 = pound / 1/8 ounces (10 lb x 1/8 oz)
  - lb = pounds only (10 lb x 0.005 lb)
  - oz = ounces (160 oz x 0.05 oz)
  - oz 1/8 = 1/8 ounces (160 oz x 1/8 oz)
5. The display will return to **Unit**.
6. Press **UNIT** key to proceed to AUTOMATIC SHUTOFF

## AUTOMATIC SHUTOFF

1. The display will change to **AOFF**.
2. Press the **SET** key to begin selection of the automatic shut-off time (in seconds).
3. Press the **UNIT** key to toggle through the selections, **120**, **180**, **240**, **300**, or **OFF**.
4. When the desired time or Off is displayed, press the **SET** key.
5. The display will return to **AOFF**.
6. Press **UNIT** key to proceed to GRAVITY COMPENSATION.

## CONFIGURATION, CONT.

### GRAVITY COMPENSATION

1. With the display showing **GrAU**:
  - To Enable the Gravity Compensation mode, press the **SET** key. The display will change to **On** (use the factory set value of 9.797).
  - To Disable the Gravity Compensation mode, press the **UNIT** key. The display will change to **OFF** (use the value obtained from the factory Tech Support).
2. Press the **SET** key again. The display will change to show **GrAU**.
3. Press the **UNIT** key. The display will change to show **End**.
4. Press the **SET** key to save the settings and reset the scale.
5. Setup is complete.

### GRAVITY COMPENSATION

The Gravity Compensation for your scale has been pre-configured at the factory and should not require changing in most locations. In the event that the factory settings do not meet the requirements of your location, contact the factory Tech Support for the value for your location.

With **GrAU** enabled in the function setting of the Configuration mode, the scale will use the factory set value of 9.797 for the Gravity Compensation.

If the **GrAU** is disabled, the scale will use the value obtained from the factory Tech Support and entered by the operator for the Gravity Compensation.

#### To change the Gravity Compensation value:

1. Press and hold the **UNIT** key while pressing the **ON/OFF** key to turn on the scale and enter Gravity Compensation mode, the display will show 9.797 (or the current value).
2. Press the **UNIT** key to increase the value or **TARE** key to decrease the value to achieve the desired value.
3. Press the **SET** key to confirm the entered gravity and return the scale to the normal operating mode.

### CALIBRATION PROCEDURE

1. While the scale is off, press and hold the **ON/OFF** key.
2. Once all display segments are on, release the **ON/OFF** key and immediately and press the **UNIT** key three (3) times.
3. The scale will show "11111" → "55555", and finally show the counts of zero.
4. Press the **SET** key. The scale will show "0g" and then go back to the counts.
5. Place a 5 kg test weight on the scale and then press the **SET** key.
6. The scale will show "5000g", and change to show "CAL", and then automatically turn off.
7. Remove the test weight from the scale.
8. The scale is ready for normal operation.

## DISPLAY MESSAGES

DISPLAY	MEANING
<i>Lo</i>	Low battery indication
<i>EE</i>	E <sup>2</sup> prom Error
<i>OL</i>	Over capacity

## CARE AND MAINTENANCE

The heart of the WPS10 Waterproof Digital Portion Scale is a precision load cell located in the center of the scale base. It will provide accurate operation indefinitely if protected against overload of scale capacity, dropping items on scale, or other extreme shock.

- **DO NOT** use acetone, thinner or other volatile solvents for cleaning.
- **DO NOT** expose scale to direct sunlight or temperature extremes.
- **DO NOT** place scale in front of heating/cooling vents.
- **DO** clean the scale with a damp soft cloth and mild non-abrasive detergent.
- **DO** clean the scale by submerging in dishpan and using mild non-abrasive detergent.  
**NOTE:** Before submerging scale in dishpan, make sure power jack cover on side of scale is completely inserted, battery pack cover on bottom of scale is installed and water temperature does not exceed 140°F (60°C).
- **DO** remove AC power before cleaning with a damp cloth or submerging scale in dishpan.
- **DO** provide clean AC power and adequate protection against lightning damage.
- **DO** keep the surroundings clear to provide clean and adequate air circulation.



**DO NOT PLACE SCALE IN COMMERCIAL DISHWASHER TO CLEAN!**

