



# **MODEL 8450**

## **Small Animal Scale**

### **Operation Manual**



MidMark Corporation  
PO Box 431  
Carthage, Missouri 64836  
USA  
Phone: 800.299.9525  
Fax: 417.358.4716  
*midmark.com*



# INTRODUCTION

Thank you for purchasing the Midmark Model 8450 Small Animal Scale. The 8450 comes complete with a one-piece platform and base with padded handles. With a 9V DC adapter (not included) the scale can be used in a fixed location or with a 9V battery (not included) as a portable 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 designed within the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC rules 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.

## COPYRIGHT

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.

## DISCLAIMER

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

Introduction .....	1
Specifications .....	1
Installation .....	2
Unpacking .....	2
Power Supply .....	2
Battery .....	2
Low Battery .....	3
Display And Key Functions .....	3
Features .....	3
Configuration .....	4
Display Messages .....	5

# SPECIFICATIONS

<b>Power Requirements:</b>	9V battery or 9V 100mA DC adapter
<b>Capacity:</b>	44 lb x 0.02 lb, 704 oz x 0.5 oz (20 kg x 0.01 kg)
<b>Weight Units:</b>	lb, oz, lb/oz, kg
<b>Display:</b>	1.0" LCD display with 4 1/2 active digits
<b>Operation Temperature:</b>	41 to 95 °F (5 to 35 °C)
<b>Function Keys:</b>	TARE/ON/OFF, KG/LB, MEMORY
<b>Dimensions:</b>	Scale with handle: 24 x 14 x 2 in. (620 x 350 x 50 mm) Platform surface: 20 x 14 x 2 in. (500 x 350 x 50 mm)

<b>PRECAUTIONS</b>	
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.

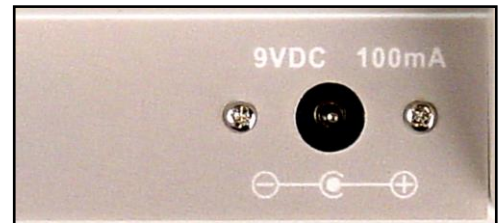
1. Remove the scale from the shipping carton and inspect it for any signs of damage.
2. Plug-in the 9VDC adapter or install the battery. Refer to the POWER SUPPLY or BATTERY sections of this manual for more instruction.
3. Place the scale on a flat level surface, such as a table or bench.
4. The scale is now ready for use.

## POWER SUPPLY

To apply power to the scale using a 9VDC, 100 mA power supply, insert the plug from the power supply cable into the power jack on the back of the scale and then plug power supply into the proper electrical outlet. The scale is now ready for operation.



**DO NOT** connect the plug-in power supply to the scale with a battery installed in the scale.

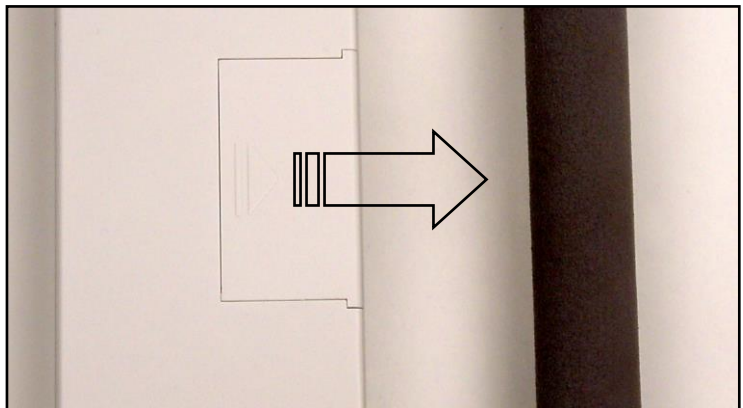


## BATTERY

The scale can use a "9V" size alkaline battery (*not included*). If you wish to operate the scale from a battery, you must first obtain and install the battery. The battery is contained in a holder inside the scale. Access is via a removable panel on the right end of the bottom of the scale.

### INSTALLING THE BATTERY

1. Turn the scale over so that the display is facing down and place it upside down on a flat level surface, such as a table or bench.
2. Locate the battery door on the bottom of the scale.
3. Remove the battery door by pushing in on the "arrow" and sliding the battery door in the direction of the arrow.
4. Slide the battery door about 1/2 inch, lift and remove exposing the battery snap connector.
5. Connect the snap connector to a 9 volt battery and place the battery in the holder.
6. Place the battery door on the scale and slide it the "opposite" direction of the arrow until you hear it click and lock in place.

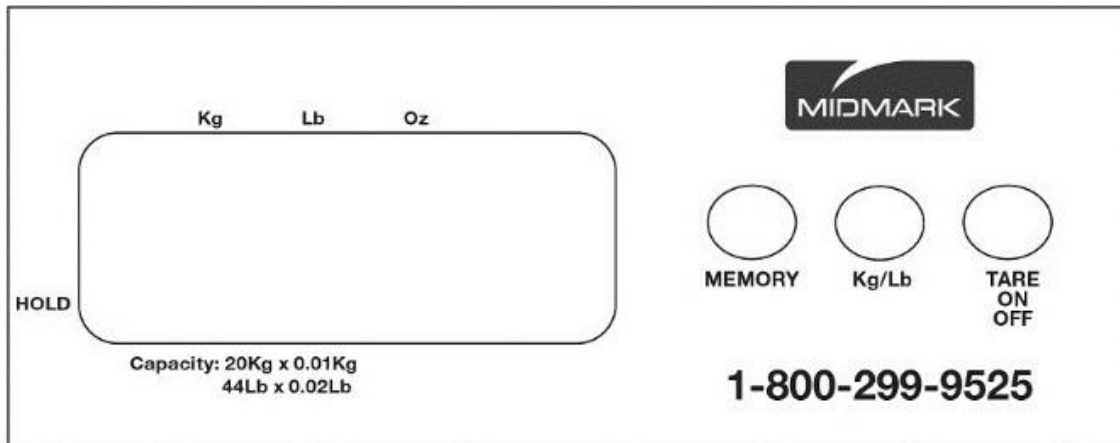


## INSTALLATION, CONT.

### LOW BATTERY

When the battery is near the point it needs to be replaced, a low battery indicator **Low** will be displayed. 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 replace the battery or remove the battery and plug-in the 9VDC adapter.

## DISPLAY AND KEY FUNCTIONS



### KEY FUNCTIONS

#### ON/ZERO/OFF

1. Press this key to turn the scale on.
2. Press this key and hold for 2 seconds to turn the scale off.
3. Press this key with the scale on to zero the scale.

#### Kg / Lb

Press this key to switch unit between kg, lb, oz and lb/oz.

#### MEMORY

Press to recall and release the weighing value.

If the weight is less than 1kg, press this key to recall the stored value of weight.

If the weight value is greater than 1kg, press this key to store the weight value.

## FEATURES

#### MEMORY

- When power on, the Memory feature will auto switch on and the arrow besides HOLD at left bottom of LCD will flicker.
- When the loaded weight is above 1kg and stable, the arrow stops flickering.
- To disable the Memory function, press **TARE/ON/OFF** key again

#### AUTO OFF

The scale will automatically shut-off after 2 minutes of nonuse to conserve the battery.

# CONFIGURATION

Your 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 START CONFIGURATION

1. Press the **TARE/ON/OFF** key to turn on the scale.
2. Press and hold the **Kg / Lb** key for 3 seconds.
3. When the display shows **555**, release the **Kg / Lb** key.
4. The display will change to show **Unit**.

## WEIGHING UNITS

### To select “Kg” weighing units

1. With the display showing **Unit**, press the **MEMORY** key.
2. The display will change to an arrow ^ pointing to kg.
3. Press the **MEMORY** key to display the kg status.
4. Press the **Kg / Lb** key to toggle between:  
“Enable” (display will change to **On**) or “Disable” (display will change to **OFF**).
5. Press the **MEMORY** key and then the **Kg / Lb** key 4 times.
6. The display will change to **Unit**.
7. Proceed to AUTOMATIC SHUTOFF.

### To select “Lb” weighing units

1. With the display showing **Unit**, press the **MEMORY** key and then **Kg / Lb** key.
2. The display will change to an arrow ^ pointing to lb.
3. Press the **MEMORY** key to display the lb status.
4. Press the **Kg / Lb** key to toggle between:  
“Enable” (display will change to **On**) or “Disable” (display will change to **OFF**).
5. Press the **MEMORY** key and then the **Kg / Lb** key 3 times.
6. The display will change to **Unit**.
7. Proceed to AUTOMATIC SHUTOFF.

### To select “oz” weighing units

1. With the display showing **Unit**, press the **MEMORY** key and then **Kg / Lb** key 2 times.
2. The display will change to an arrow ^ pointing to oz.
3. Press the **MEMORY** key to display the oz status.
4. Press the **Kg / Lb** key to toggle between:  
“Enable” (display will change to **On**) or “Disable” (display will change to **OFF**).
5. Press the **MEMORY** key and then the **Kg / Lb** key 2 times.
6. The display will change to **Unit**.
7. Proceed to AUTOMATIC SHUTOFF.

### To select “lb/oz” weighing units

1. With the display showing **Unit**, press the **MEMORY** key and then **Kg / Lb** key 3 times.
2. The display will change to show arrows ^ ^ pointing to both lb and oz.
3. Press the **MEMORY** key to display the lb/oz status.
4. Press the **Kg / Lb** key to toggle between:  
“Enable” (display will change to **On**) or “Disable” (display will change to **OFF**).
5. Press the **MEMORY** key and then the **Kg / Lb** key.
6. The display will change to **Unit**.
7. Proceed to AUTOMATIC SHUTOFF.

## CONFIGURATION, CONT.

### AUTOMATIC SHUTOFF

1. With the display showing Unit, press the **Kg / Lb** key.
2. The display will change to show ROFF.
3. Press the **MEMORY** key to begin selection of the automatic shut-off time (in seconds).
4. The display will change to show 120.
5. Press the **Kg / Lb** key to toggle through the selections, *120, 180, 240, 300, or OFF*.
6. When the desired time is displayed, press the **MEMORY** key.
7. The display will change to show ROFF.

### TO COMPLETE CONFIGURATION

1. With the display showing ROFF, press the **Kg / Lb** key.
2. The display will change to show CRP.
3. Press the **Kg / Lb** key.
4. The display will change to show d105.
5. Press the **Kg / Lb** key.
6. The display will change to show CrAu.
7. Press the **Kg / Lb** key.
8. The display will change to show End.
9. Press the **MEMORY** key.
10. Configuration is complete and the new settings have been saved.

## DISPLAY MESSAGES

DISPLAY	MEANING
<b>Low</b>	Low battery indication
ErrE	E <sup>2</sup> prom Error
ErrL	Under Zero
Err	Over Zero or Over Capacity



### Manufacturer's Declaration of Conformity

This product has been manufactured in accordance with the harmonized European standards, following the provisions of the below stated directives:

Electro Magnetic Compatibility Directive 2014/30/EU

Low Voltage Directive 2014/35/EU

Cardinal Scale Manufacturing Company

