

# DETECTO®



## DR150/DR400 LOW-PROFILE PLATFORM SCALE Operation Manual

# TABLE OF CONTENTS

Introduction .....	1
Specifications .....	1
Installation .....	2
Key Functions .....	3
Display Annunciators .....	4
Operation .....	5
Configuration .....	6
Display Message .....	8
Care and Maintenance .....	8

## Proper Disposal

When this device reaches the end of its useful life, it must be properly disposed of. It must not be disposed of as unsorted municipal waste. Within the European Union, this device should be returned to the distributor from where it was purchased for proper disposal. This is in accordance with EU Directive 2002/96/EC. Within North America, the device should be disposed of in accordance with the local laws regarding the disposal of waste electrical and electronic equipment.

It is everyone's responsibility to help maintain the environment and to reduce the effects of hazardous substances contained in electrical and electronic equipment on human health. Please do your part by making certain that the device is properly disposed of. The symbol shown to the right indicates that this device must not be disposed of in unsorted municipal waste programs.



## 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.

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# INTRODUCTION

Thank you for purchasing our DETECTO DR150 (150lb capacity) or DR400 (400lb capacity) Low-Profile Platform Scale. Both units can be powered by a battery or AC adapter (included). Both scales are equipped with a movable display that can be placed on the work surface or mounted to the wall.

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




# SPECIFICATIONS

Weight Display:	LCD, 5 Digit, 1.0" Characters
Display Size	6.77" L x 1.57" D x 3.23" H (172 mm x 40 mm x 82 mm)
Platform Size:	12.52" W x 11.93" D x 2.28" H (318 mm x 303 mm x 58 mm)
Power:	9V DC 300mA power supply or (4) AA alkaline batteries (not included)
Zero:	Established on power up routine and maintained by auto-zero circuitry.
Tare:	100% of scale capacity
Temperature:	41 to 95°F (5 to 35°C)
Humidity:	35% ~ 90% RH
Capacity x Division:	DR150 = 150 lb x 0.2lb (68 kg x 0.1 kg) DR400 = 400 lb x 0.5 lb (181 kg x 0.2 kg)
Keys:	ON/OFF, lb/kg, HOLD, TARE
Features:	Low battery indicator, Power saving selectable timing auto shut-off


**Serial Number** \_\_\_\_\_  
**Date of Purchase** \_\_\_\_\_  
**Purchased Form** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 RETAIN THIS INFORMATION FOR FUTURE USE

**PRECAUTIONS**

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



IMPORTANT



ELECTRICAL  
WARNING

# INSTALLATION

## Unpacking

Before beginning the 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 supplied 9VDC power supply or install (4) AA 1.5V alkaline 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 the supplied 15VDC, 300 mA power supply, insert the plug from the power supply cable into the power jack on the left side of the indicator, then plug the power supply into a proper electrical outlet. The scale is now ready for operation.



## Battery

The scale can use (4) AA 1.5V alkaline batteries (*not included*). If you wish to operate the scale from batteries, you must first obtain and install the batteries. The batteries are contained in a compartment in the display. Access is via a removable door on the back of the display.

## Battery Installation

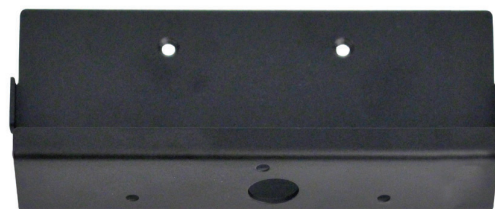
The DR150/DR400 Digital Scale operates with (4) "AA" batteries (Alkaline preferred).

1. Place display face down on a flat surface.
2. Remove the battery compartment door and insert batteries into the compartment. Make certain to observe the correct polarity.
3. Replace the battery compartment door.

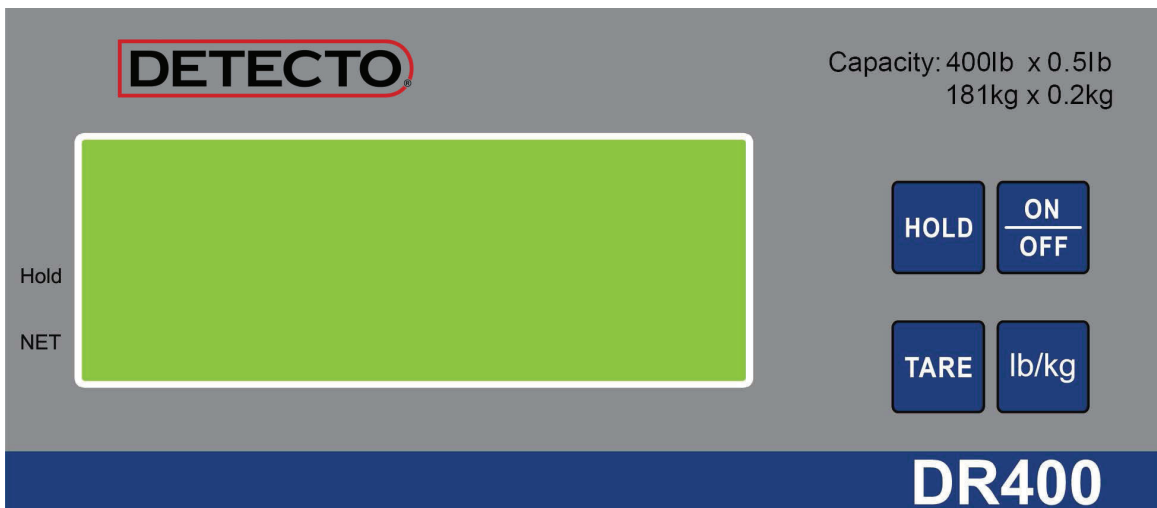
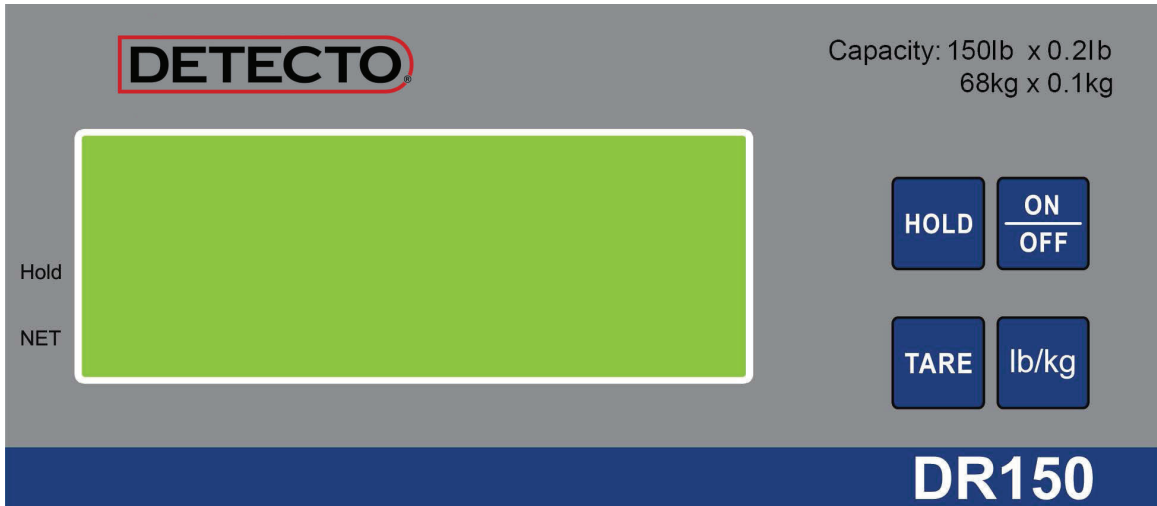


## Mounting the Unit

1. Locate the position on the wall for the display mounting bracket.
2. Mark and drill holes.
3. Insert flat tip screws (included) through holes in the mounting bracket and tighten them to secure the mounting bracket to the wall.
4. Route display cable through the large hole in the center bottom of the display mounting bracket.
5. Plug the display cable into the bottom of the display and place the display on the bracket.



## KEY FUNCTIONS



### ON / OFF

Press and release to turn on scale On or Off.

### lb/kg

Press to change the weighing units to the alternate units of measurement (if selected during configuration of the scale).

### TARE

1. Press to reset the display to zero up to 100% of the scale capacity.
2. Press and hold to enter Configuration mode.
3. In the Configuration mode, press to select menu.

### HOLD

1. Press to turn the Hold function On or Off
2. Press to toggle between the settings for each configuration parameter, and then advance to the next menu.

**NOTE: The Hold function requires a minimum weight of 4 lb / 2 kg (DR150) or 9 lb / 4 kg (DR400).**

# DISPLAY ANNUNCIATORS

The display 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.

**O**

This annunciator will turn on when the weight display is stable.



This annunciator will turn on when a negative (minus) weight is displayed.



This annunciator will turn on when the scale weight has been zeroed.

**Hold ◀**

This annunciator will turn on after pressing the **HOLD** key.

**NET ◀**

This annunciator will turn on after pressing the **TARE** key to tare the weight of the item on the scale.

**kg**

This annunciator will turn on to indicate that the displayed weight is in kilograms.

**lb**

This annunciator will turn on to indicate that the displayed weight is in pounds.

**⌊ □ (Low Battery)**

When the batteries are near the point they need to be replaced, a low battery indicator on the display will turn on. If the 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 batteries or remove the batteries and plug the power supply into the scale and then into the proper electrical wall outlet.



# OPERATION



**DO NOT** operate the keypad with pointed objects (pencils, pens, etc.). Damage to the keypad resulting from this practice is **NOT** covered under warranty.

## Turn the Scale On

Press the **ON / OFF** key to turn the scale on. The scale display will show all segments then change to the selected weighing units.

## Select the Weighing Unit

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

## Weighing an Item

Place the item to be weighed on the scale platform. Wait a moment for the scale display to stabilize, then read the weight.

## To Zero / Tare the Weight Display

To zero the weight display or to tare the weight of the item (e.g., box or crate) on the scale, press the **TARE** key. If nothing is on the scale when pressed the scale will zero. If an item is on the scale when pressed, the scale enters tare mode, and the **NET** annunciator is turned on.

This is useful when weighing in merchandise to be weighed in a container. To control the total weight, the value of the container may be retrieved. This way it is possible to control to what extent the loading area of the scale is utilized. (Gross, i.e., incl. weight of container).

## Hold Weight Display

To hold the weight display, press the **HOLD** key. The indicator will display **H<sub>1</sub>** on and flash **HOLD** annunciator. Place the animal on the scale. When weight stabilizes, the indicator will display and hold the weight and the **HOLD** annunciator will be steady. Press **HOLD** or **TARE** to exit Hold mode.

**NOTE: The Hold function requires a minimum weight of 4 lb / 2 kg (DR150) or 9 lb / 4 kg (DR400).**

## Turn the Scale Off

With the scale turned on, press the **ON / OFF** key to turn the scale off.

# CONFIGURATION

The scale has been pre-configured at the factory and should not require configuration for use in most applications. If 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 **TARE** key until the display changes to *Set*.
3. Release the **TARE** key. The display will change to *Unit*.

## WEIGHING UNITS

To select desired weighing units:

1. With the display showing *Unit*, press the **TARE** key. The display will change to (“kg”).
2. Press the **TARE** key to display status.
3. Press the **HOLD** key to toggle between ON or OFF
4. Press the **TARE** key. The display will again show the weighing unit (“kg”).
5. Press the **HOLD** key to advance the display to lb.
6. Press the **TARE** key to display status.
7. Press the **HOLD** key to toggle between ON or OFF
8. Press the **TARE** key. The display will again show the weighing unit (“lb”).
9. Press the **HOLD** key. The display will show lb and 8/8.
10. This setting is not used. Press the **HOLD** key.
11. The display will again show *Unit*.
12. Proceed to **AUTOMATIC SHUTOFF**.

## AUTOMATIC SHUTOFF

1. With the display showing *Unit*, press the **HOLD** key.
2. The display will change to show *ROFF*.
3. Press the **TARE** key to begin the selection of the automatic shut-off time (in seconds). The display will change to show the current setting.
4. Press the **HOLD** key to toggle through the selections, *1205, 1805, 2405, 3005, or OFF*.
5. When the desired time is displayed, press the **TARE** key.
6. The display will change to show *ROFF*.
7. Proceed to **BUZZER (BEEPER)**.



# CONFIGURATION, CONT.

## BUZZER (BEEPER)

1. With the display showing *OFF*, press the **HOLD** key.
2. The display will change to show *burr*.
3. Press the **TARE** key to display the buzzer (beeper) status.
4. Press the **HOLD** key to toggle between:
  - Enabled (display will change to *On*)
  - Disabled (display will change to *OFF*).
5. Press the **TARE** key. The display will change to show *burr*.
6. Proceed to **BACKLIGHT**.

## BACKLIGHT

1. With the display showing *burr*, press the **HOLD** key.
2. The display will change to show *backl*.
3. Press the **TARE** key to show the Backlight status.
4. Press the **HOLD** key to toggle between ON, OFF, or AUTO
  - a. ON: backlight always on
  - b. OFF: backlight always OFF
  - c. AUTO: backlight on only during weighing
5. When the desired state is displayed, press the **TARE** key.
6. The display will return to *backl*
7. Proceed to **PRINT OUTPUT SETTING**.

## PRINT OUTPUT SETTING

1. With the display showing *backl*, press the **HOLD** key.
2. The display will change to show *print*
3. Press the **TARE** key to display status
4. Press the **HOLD** key to toggle between AUTO or OFF  
(Auto sends weight output automatically once weight is stable. OFF no output)
5. When the desired state is displayed press the **TARE** key.
6. The display will return to *print*
7. Press the **HOLD** key. The display will change to show *end*.
8. This setting is not used. Press the **HOLD** key to proceed to END.

## End

Press the **HOLD** key to return to the beginning of configuration OR press the **TARE** key to exit configuration and return to normal scale operation.

## DISPLAY MESSAGES

DISPLAY	MEANING
<i>Lo</i>	Low battery indication
<i>Err</i>	Overload
<i>Errd</i>	The cable from the display to the platform is not connected correctly. Please check the cable connection.

## CARE AND MAINTENANCE

The heart of the DR150/DR400 Digital Scale is four precision load cells located in the four corners of the scale base. It will provide accurate operation indefinitely if protected against overload of scale capacity, dropping items on the scale, or other extreme shocks.

- **DO NOT** submerge scale or display in water, pour, or spray water directly on them.
- **DO NOT** use acetone, thinner, or other volatile solvents for cleaning.
- **DO NOT** expose scale or display to direct sunlight or temperature extremes.
- **DO NOT** place the scale in front of heating/cooling vents.
- **DO** clean scale and display with a damp soft cloth and mild non-abrasive detergent.
- **DO** remove power before cleaning with a damp cloth.
- **DO** provide clean AC power and adequate protection against lightning damage.
- **DO** keep surroundings clear to provide clean and adequate air circulation.

# STATEMENT OF LIMITED WARRANTY

DETECTO warrants its equipment to be free from defects in material and workmanship as follows: DETECTO warrants to the original purchaser only that it will repair or replace any part of equipment which is defective in material or workmanship for a period of **two (2) years from date of shipment**. Detecto shall be the sole judge of what constitutes a defect.

During the **first ninety (90) days** DETECTO may choose to replace the product at no charge to the buyer upon inspection of the returned item.

**After the first ninety (90) days**, upon inspection of the returned item, DETECTO will repair or replace it with a remanufactured product. The customer is responsible for paying for the freight both ways.

This warranty does not apply to peripheral equipment not manufactured by DETECTO; this equipment will be covered by certain manufacturer's warranty only.

This warranty does not include replacement of expendable or consumable parts. This does not apply to any item which has deteriorated or damaged due to wear, accident, misuse, abuse, improper line voltage, overloading, theft, lightning, fire, water or acts of God, or due to extended storage or exposure while in purchaser's possession. This warranty does not apply to maintenance service. Purchased parts will have a ninety (90) day repair or replacement warranty only.

DETECTO may require the product to be returned to the factory; item(s) must be properly packed and shipping charges prepaid. A return authorization number must be obtained for all returns and marked on the outside of all returned packages. DETECTO accepts no responsibility for items lost or damaged in transit.

## Conditions Which Void Limited Warranty

This warranty shall not apply to equipment which:

- A.) Has been tampered with, defaced, mishandled or has had repairs and modifications not authorized by DETECTO.
- B.) Has had serial number altered, defaced, or removed.
- C.) Has not been properly grounded according to Detecto's recommended procedure.

## Freight Carrier Damage

Claims for equipment damaged in transit must be referred to the freight carrier in accordance with freight carrier regulations.

This warranty sets forth the extent of our liability for breach of any warranty or deficiency in connection with the sale or use of the product. DETECTO will not be liable for consequential damages of any nature, including but not limited to, loss of profit, delays or expenses, whether based on tort or contract. Detecto reserves the right to incorporate improvements in material and design without notice and is not obligated to incorporate improvements in equipment previously manufactured.

The foregoing is in lieu of all other warranties, express or implied including any warranty that extends beyond the description of the product including any warranty of merchantability or fitness for a particular purpose. This warranty covers only those DETECTO products installed in the forty-eight (48) contiguous continental United States.



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