

# DETECTO®



## RP30 Ingredient Scale Operation Manual

## INTRODUCTION

The DETECTO RP30 is a 30lb/15kg capacity ingredient scale equipped with a rotating tray to allow even distribution of ingredients. The RP30 features include a Display Backlight, a Sleep Mode/Auto-Off function, and a Weight Accumulator.

This manual contains information on the operation of this scale. Please read it before attempting to use the scale and keep it handy for future reference.

### FCC COMPLIANCE STATEMENT

**WARNING!** 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 the 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 for taking whatever measures necessary to correct the interference.

The booklet *How to Identify and Resolve Radio-TV Interference Problems* (Second Edition, September 1982), prepared by the Federal Communications Commission, may be helpful. It can be ordered from the U.S. Government Publishing Office, Superintendent of Documents, P.O. Box 37082, Washington, DC 20013-7082. The stock number is 004-000-00345-4.

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## SPECIFICATIONS

Power Requirements:	Built-in rechargeable 6V 4.5 AH battery or 100-240 VAC / 12 VDC @ 1A AC adapter
Operating Temperature:	14 to 104 °F (-10 to +40 °C)
Display:	Six-digit, seven-segment, 0.5-inch high LCD (both lb and oz)
Capacity:	30lb x 0.1oz (15kg x 5g)
Scale Size:	12.5" W x 13.5" D x 4.00" H
RP30S Platform Size:	17" W x 13" D
RP30R Platform Size:	13" Diameter

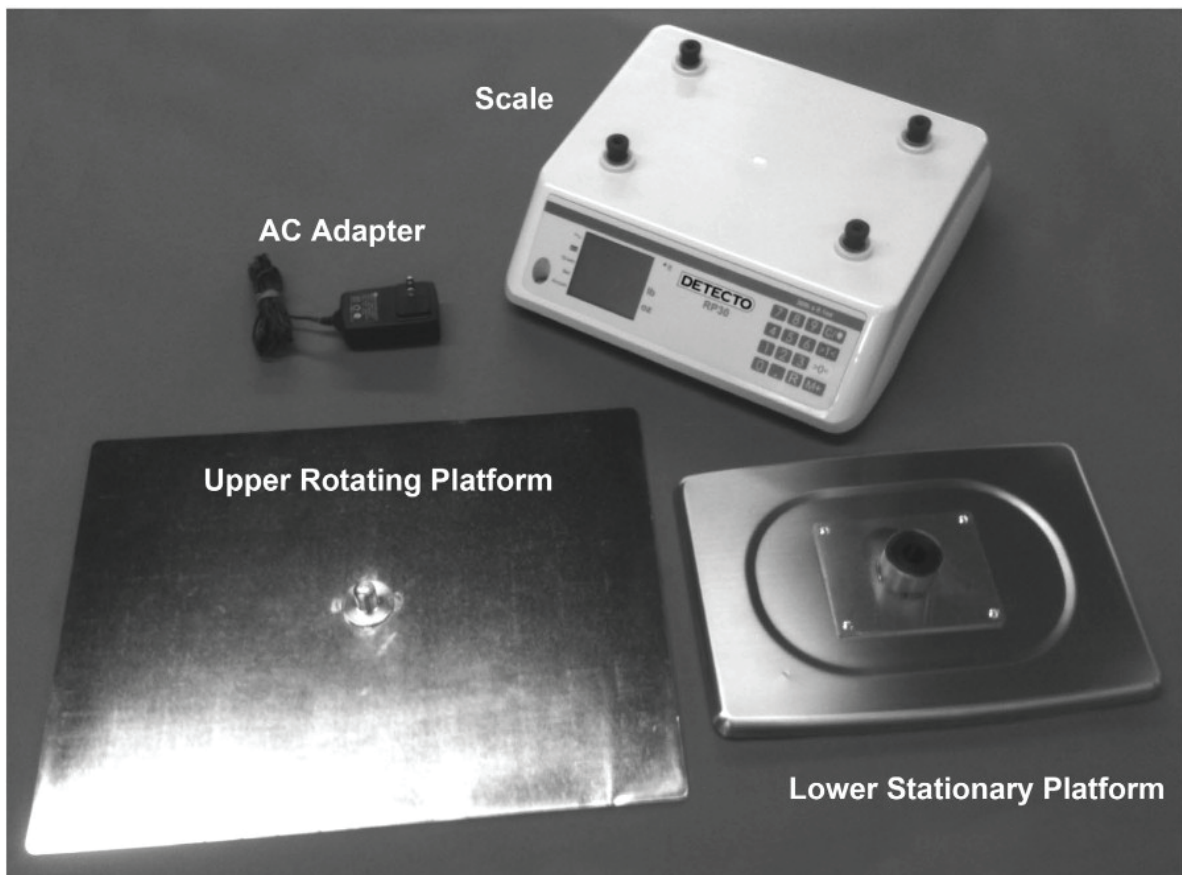
# UNPACKING AND ASSEMBLY

## Unpacking

Before beginning the installation of your scale, make certain it 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. You should have the following items:

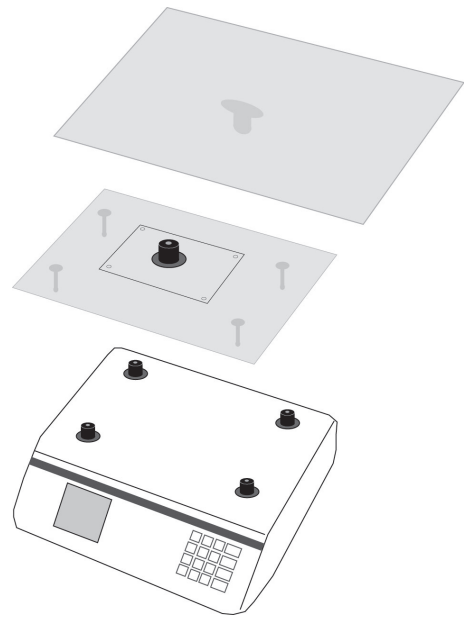
- (1) Scale
- (1) Lower Stationary Platform
- (1) Upper Rotating Platform
- (1) AC Adapter

## Assembly



1. Turn the scale upside down and insert the plug from the AC adapter cable into the power jack in the recessed area on the bottom of the scale near the ON/OFF switch.
2. Set the scale on a stable, vibration-free level surface away from direct sunlight and any rapidly moving air source (heating/cooling vents, fans, etc.). This will prevent sudden temperature changes and air currents that may result in unstable weight readings.

3. Place the lower stationary platform on the scale, inserting the four studs on the bottom of the platform into the holes of the scale platform supports.
4. Place the upper rotating platform onto the lower stationary platform, inserting the single stud on the bottom of the rotating platform in the hole of the support on the stationary platform.
5. Level the scale using the leveling bubble at the front of the scale and the adjustable feet.
6. Make certain the cord from the AC adapter is routed out of the way of normal traffic, and plug the AC adapter into the wall outlet. Note the battery indicator on the front of the scale - red is charging, green is fully charged.



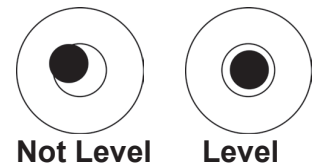
## Quick Operation

Although it is recommended that you read this manual before attempting to operate the scale, this section is included to provide a condensed set of instructions on using the scale.

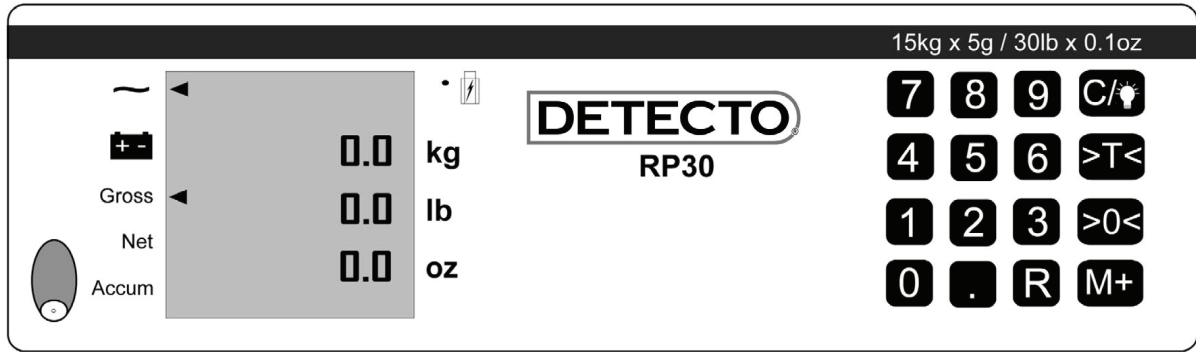
1. Turn the scale ON using the switch on the lower right side of the scale.
2. Place the cake/product on the scale. The scale will display weight. Press the **TARE** (>T<) key.
3. Begin icing the cake/adding ingredients. When the icing/ingredient layer reaches the desired weight, press the **TARE** (>T<) key.
4. Continue icing cake/adding ingredients, repeating Step 3 for each layer.
5. When the cake/product is complete, remove the cake/product from the scale.
6. The display will show the total weight of the cake with icing/product with all ingredients.
7. Press the **ZERO** (>0<) key to clear the tare weight for the next cake/product.

## Level Adjustment

The level indicator is located at the front of the scale. If the scale is not level (the bubble will not be centered), level the scale by turning the adjustable feet on the bottom of the scale until the bubble indicator is in the center of the circle. All four feet must touch the surface to make sure the scale does not rock.



# OPERATOR DISPLAY



## KEY FUNCTION

Key	Name	Function
<b>0 ~ 9</b>	Numeric Keys	Ten numerical keys to enter the price
<b>C/W</b>	Clear/Backlight	The total accumulator will be cleared when the <b>C/W</b> key is pressed.
<b>&gt;T&lt;</b>	Tare Key	Subtracts unwanted weight. Such as the weight of a container, from weight calculations.
<b>&gt;0&lt;</b>	Zero Key	Zeroes the weight display when no weight is on the tray, to provide accurate calculations.
<b>M+</b>	Accumulation Key	Add the current weight on display to the accumulator.
<b>P</b>	Recall	The R (recall) key will display the value of the total accumulator.

## ANNUNCIATOR DESCRIPTION

Annunciator	Detail
<b>~</b>	This annunciator is turned on when the weight display is stable.
<b>+ -</b>	This annunciator is turned on to indicate that the battery voltage is low and the battery will soon need to be recharged.
<b>Gross</b>	This annunciator is turned on to show that gross weight is displayed. Gross weight will be displayed when no tare weight is stored.
<b>Net</b>	This annunciator is turned on when the displayed weight is Net weight (Gross weight less Tare weight).
<b>Accum</b>	This annunciator is turned on when there is an accumulation in memory.
<b>• [Battery Icon]</b>	Red light: The battery is charging. Green light: The battery is fully charged.

# OPERATING INSTRUCTIONS

## Power Switch

The Power Switch is located on the bottom right side panel towards the front of the scale. Place the power switch in the on position. The scale will perform a brief lamp test. This test consists of illuminating all display segments and annunciator LEDs to allow the operator to make a visual verification that the display is operational. After completion of the lamp test, the scale will display the model number, the software revision level, and then the WEIGHT display will show zero weight, indicating the scale is ready for use.

*Before using the scale, it should be allowed to “warm up” (turned on and unloaded for approximately 5 to 10 minutes).*

## Display Backlight

### Auto Backlight

The RP30 is equipped with a back-lit display. When enabled, the display backlight will be turned on during weighing and will automatically turn off 5 seconds after the weight has been removed from the scale. Note that the Backlight uses additional energy and will shorten battery usage between charges.

To turn the backlight ON, press the **C/W** key and hold for 3 seconds. The scale will beep, indicating the backlight has been turned ON.

### Backlight Off

Press the **C/W** key and hold for 3 seconds. The scale will beep, indicating the backlight has been turned OFF.

**NOTE!** The backlight mode is stored in memory and will be restored when the scale is switched off and back on again.

### Sleep Mode/Auto Off (Battery Powered Use)

The Sleep Mode feature conserves battery power when the scale remains unused for a period of approximately 30 seconds to 1 minute (depending on the setting selected in the configuration procedure). The display will be blank except for a flashing cursor. To activate the scale, press any key or add/remove weight from the scale. Note that the sleep mode feature may be disabled by selecting OFF during the configuration procedure.

The Auto Off (automatic shut-off) feature helps prolong battery life by turning the scale off after a predetermined period of inactivity. To turn the scale back on, you must use the ON/OFF switch.

During the configuration procedure, the Auto Off feature can be set for 2, 3, 4, 5, or 10 minutes of inactivity before the scale will automatically shut off. Note that the Auto Off feature may be disabled by selecting OFF during the configuration procedure.

## Weighing Units

The DETECTO RP30 is shipped configured to weigh in Pounds / Ounces. If weighing in Kilograms is required, follow the simple instructions below.

1. With the scale turned OFF, press and hold the **M+** key and turn the scale ON.
2. The display will show *SEtUP* and the software revision level.
3. Release the **M+** key. The display will change to show *SEtUP, Unit*.
4. Press the **>T<** key to toggle between (*Lb* = Lb) and (*KG* = kg).
5. Press the **M+** key to save the selection.
6. Press the **C/W** key. The display will change to show *SEtUP, SRAE*.
7. Press the **M+** key to save setup changes and restart the scale.

## Weight Display

### Zero the Weight Display

If the display shows a positive or negative weight, the scale must be re-zeroed.

1. Make sure that nothing is on the scale platform.
2. Press the **ZERO (>0<)** key once.
3. *0.0* should appear on the weight display.

## Tare-Operation

### Push Button Tare

1. With the scale in the Weight mode (*0.0* is displayed on all displays), place the empty container on the scale platform.
2. Press the **TARE (>T<)** key. The display will change to zero, and the Net annunciator will be turned on, indicating net weight is being displayed. The empty container's weight has been entered as "tare weight".

### Pre-Tare Function

If you know the weight of an item, such as a food container or wrapping that you use to contain or pack items on the scale, and you want to use this as a tare weight, you can manually enter the tare weight into the scale.

1. Make sure that nothing is on the scale platform and press the **TARE (>T<)** key once to enter the pre-tare setting mode.
2. The display will change to show *PREtR* and prompt for the tare weight.
3. Using the numeric keypad, enter the desired tare weight. EX: Pre-tare value is "1lb 12.5oz; you will enter "01125".
4. After the desired tare value has been entered, press the **TARE (>T<)** key.
5. The display will show a negative weight (to represent the tare weight), and the NET annunciator will be turned on. Note that this is the Net weight (Gross minus tare).
6. Proceed with the weighing operation.

### To Clear the Tare

To return to a zero tare, simply remove all material from the scale platform and press the **TARE (>T<)** key, which will reset the tare weight to zero and return the scale to a center-of-zero gross weight condition.

## Accumulator

### Adding to the Weight Accumulator

1. With the scale in the Weight mode (0.0 is displayed on all displays), place the first item on the scale platform.
2. Press the **M+** key to add to the value of the Weight Accumulator.
3. The display will show accumulator values (to indicate that the addition to the accumulator has taken place). After 1 second, the scale will return to the weight mode.
4. Remove the item from the scale or press the **ZERO** (>0<) key.
5. The scale is ready for the next weigh operation.
6. Repeat steps 1 to 5 until all items are weighed.

### Displaying the Accumulator

With the scale in the Weight mode, press the **R** key to display the content of the accumulator.

### Zero Display and Return to the Weight Accumulator



With the total accumulator weight displayed, pressing the **ZERO** (>0<) key will return the scale to zero in the gross weight accumulator mode for additional weight accumulations.

### Return to the Weight Mode



With the total accumulator weight displayed, pressing the **R** key again will return the scale to the Weight mode. This will not affect the accumulator.

### Clearing the Accumulator

With the scale in the Weight mode, press the **R** key to display the content of the accumulator.



With the total accumulator weight displayed, press the **C/W** key to clear (reset) the total accumulator. The display will return to the Weight mode.





# CONFIGURATION

The RP30 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. With the scale turned OFF, press and hold the **M+** key and then turn the scale ON.
2. The display will show *SEtUP* and the software revision level.
3. Release the **M+** key.
4. The display will change to show *SEtUP, Unit*.

**NOTE!** During the configuration process, it is necessary to enter operational parameter values using the scale's keypad. The following keys are used to input the values.

-  Press the **M+** key to save the parameter value displayed and advance to the next parameter.
-  Press the **>T<** key to toggle between (or step through) the option values for the displayed parameter.
-  Press the **>0<** key to back up to the previous parameter.
-  Press the **C/W** key at any time to advance to the Save Setting parameter.

## *Unit* – Weighing Units

With *SEtUP, Unit* displayed the current setting for the Weighing Units parameter will be shown. If the setting displayed is acceptable, press the **M+** key to proceed to the next parameter.

Otherwise, use the **>T<** key to toggle between the selections and then press the **M+** key to save it and proceed to the next parameter. Allowable values are:

- KG* = kg (kilograms)
- Lb* = Lb (pounds)

## *beep* – Beeper

With *SEtUP, beep* displayed the current setting for the Beeper parameter will be shown. If the setting displayed is acceptable, press the **M+** key to proceed to the next parameter.

Otherwise, use the **>T<** key to toggle between the selections and then press the **M+** key to save it and proceed to the next parameter. Allowable values are:

- YES* = Enable Beeper
- no* = Disable Beeper

**NOTE! The Sleep Mode/Auto-Off functions apply only during battery-powered use.**

### **SLEEP – Sleep Mode**

With *SETUP*, *SLEEP* displayed, the current setting for the Sleep Mode function parameter will be shown. If the setting displayed is acceptable, press the **M+** key to proceed to the next parameter.

Otherwise, use the **>T<** key to toggle between the selections and then press the **M+** key to save it and proceed to the next parameter. Allowable values are:

- 305* = If no activity occurs on the scale for **30** seconds, the scale will enter Sleep Mode. The display will be blank except for a flashing cursor. To activate the scale, press any key or add/remove weight from the scale.
- 605* = If no activity occurs on the scale for **60** seconds, the scale will enter Sleep Mode. The display will be blank except for a flashing cursor. To activate the scale, press any key or add/remove weight from the scale.
- OFF* = The Sleep Mode function is disabled.

### **ROFF – Auto-Off**

With *SETUP*, *ROFF* displayed the current setting for the Automatic Shut-Off function parameter will be shown. If the setting displayed is acceptable, press the **M+** key to proceed to the next parameter.

Otherwise, use the **>T<** key to toggle between the selections and then press the **M+** key to save it and proceed to the next parameter. Allowable values are:

- 1205* = After 120 seconds ( 2 minutes) of no activity, the scale will shut off and must be turned on using the ON/OFF switch.
- 1805* = After 180 seconds (3 minutes) of no activity, the scale will shut off and must be turned on using the ON/OFF switch.
- 2405* = After 240 seconds (4 minutes) of no activity, the scale will shut off and must be turned on using the ON/OFF switch.
- 3005* = After 300 seconds (5 minutes) of no activity, the scale will shut off and must be turned on using the ON/OFF switch.
- 6005* = After 600 seconds (10 minutes) of no activity, the scale will shut off and must be turned on using the ON/OFF switch.
- OFF* = The Auto Shut-Off function is disabled.

### *SAVE* – Save Setting

With *SETUP*, *SAVE* displayed the current setting for the Save Setting parameter will be shown. If the setting displayed is acceptable, press the **M+** key to proceed to the next parameter.

Otherwise, use the **>T<** key to toggle between the selections and then press the **M+** key to save it and proceed to the next parameter. Allowable values are:

- YES* = Save the settings
- no* = Do not save the settings

The scale display will reset and perform a brief lamp test. After completion of the lamp test, the scale will display the model number, the software revision level, and then the WEIGHT display will show zero weight.

- If *YES* (YES) was selected for the Save Setting parameter, the scale is ready for use with the new parameters.
- If *no* (no) was selected for the Save Setting parameter, the scale will continue to operate with the *previous* parameters.

## ERROR AND STATUS MESSAGES

When the scale shows an error message, always first turn off the scale, wait approximately 5 seconds, and turn on the scale. Refer to the error message list when the error message is still on the display.

ERROR MESSAGE	DESCRIPTION
<i>Err</i>	Over capacity
<i>Lo bAt</i>	Low battery
<span style="border: 1px solid black; padding: 2px;"><i>00000</i></span>	Zero value is too low when starting.
<span style="border: 1px solid black; padding: 2px;"><i>00000</i></span>	Zero value is too high when starting.
<i>ErrH</i>	Zero value is too high.
<i>ErrL</i>	Zero value is too low.
<i>ErrE</i>	E <sup>2</sup> prom Error
<i>ErrS</i>	Keypad Error

# RECHARGEABLE BATTERY

## Battery Charging


The scale can charge the battery (lead-acid rechargeable battery, 6V/4Ah). Just connect the scale to the external power supply to charge it. The battery will be charged regardless of whether the scale is on or off. It takes approximately 12 hours to charge the battery to full capacity, depending on the voltage of the battery. If the battery has been discharged, a prolonged charging time is required to bring the battery back to full capacity.



Red light: The battery is charging.

Green light: The battery is fully charged.

## Low Battery

When the battery voltage falls below 5.8V, the low battery annunciator  will be turned on. Continued use (approximately 15 minutes later), the display will show *bAt L* in the weight field. 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.

## Notice

The battery should be recharged at least every 5 months, regardless of whether it is used or not. After a long time of storage, e.g., over 3 months, it is desired to cycle (charge/discharge) the battery 3 times to let it restore to full capacity.

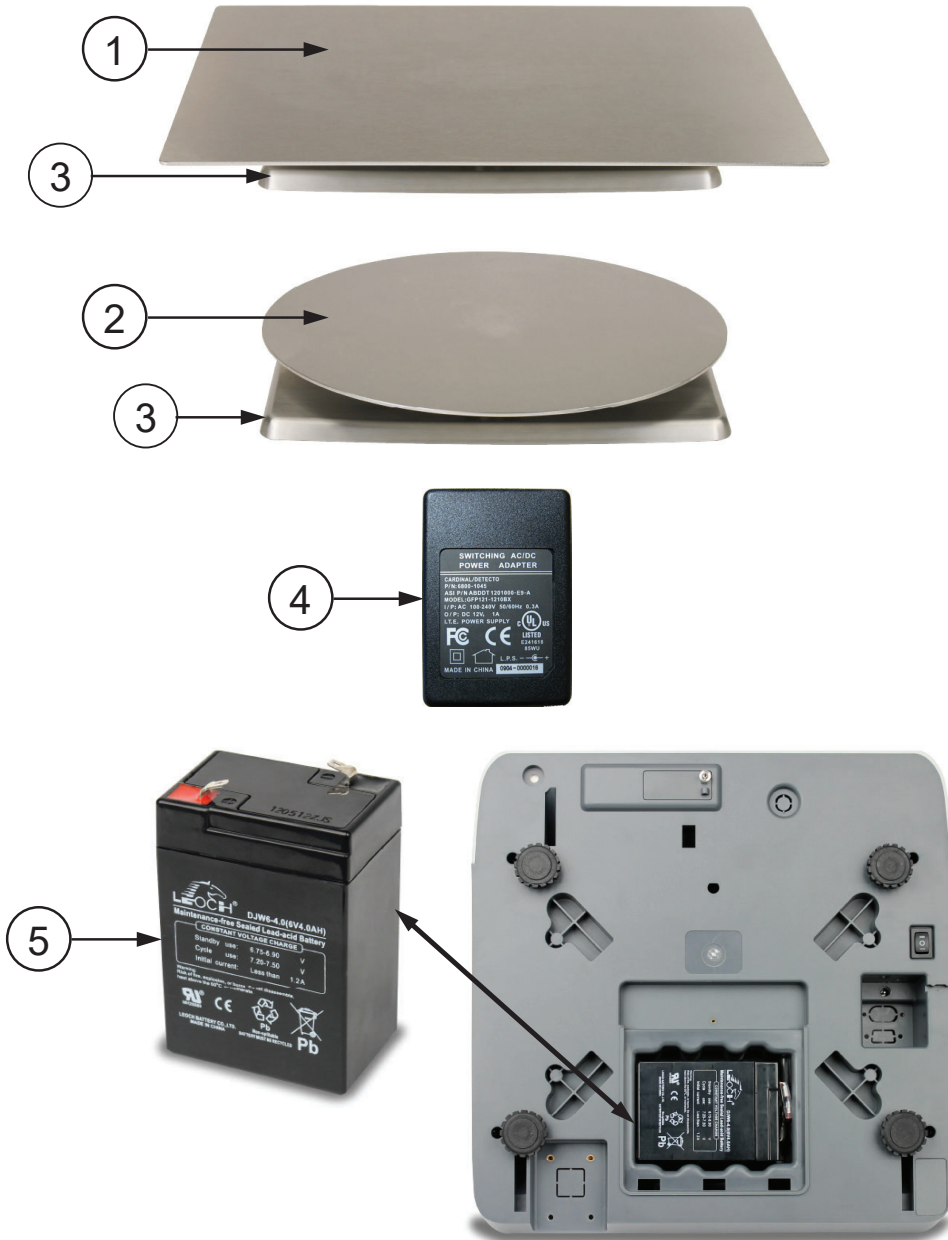
When replacing the battery, pay close attention to the poles. The positive (+) terminal must be connected to the red connector, and the negative (-) terminal must be connected to the black connector. If connected incorrectly, the battery will be damaged.

**NOTE!** The battery cover can be removed by loosening a single captive screw. This screw remains attached to the cover, which prevents it from falling out of the cover or being dropped and lost.

The capacity of the batteries will reduce over the years, and therefore also the total operation time of the scale. This is not an error of the scale, but it is normal behavior for rechargeable batteries.

# REPLACEMENT PARTS

Item	Part Number	Description
1	8535-B223-0A	Rectangular Tray with Locating Pin (Upper Rotating Platform for RP30S)
2	8535-B222-0A	Round Tray with Locating Pin (Upper Rotating Platform for RP30R)
3	<i>Not Available</i>	Loading Tray with Mounting Plate Assembly (Lower Stationary Platform for RP30S and RP30R)
4	6800-1045	AC Adapter 100-240 VAC / 12 VDC @ 1A
5	6800-1068	Battery, Lead Acid, 6V 4.5 AH, RP-30



# 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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