Cardinal® DETECTO

PZ3000 Series
Ingredient Scale
Owner's Manual

ISO REGISTERED 9001

INTRODUCTION

We wish to thank you for your purchase of our PZ3000 Ingredient scale. It has been designed and manufactured at our factory in Webb City, MO U.S.A. with quality and reliability.

This manual will instruct you in the proper installation, operation and maintenance of your new 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 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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SPECIFICATIONS

Weight Display	6 Digit, 0.7" LCD Digital Display
Dimensions **Display** **Scale Base** **PZ3015** **PZ3015L** **PZ3030** **PZ3060**	7.5" W x 1.5" D x 4.5" H 8" W x 8" D x 1.75" H 12" W x 12" D x 1.75" H 12" W x 12" D x 1.75" H 14" W x 12" D x 3" H
Zero	Established on power up routine and maintained by auto-zero circuitry.
Power Requirements	100 to 240 VAC 50/60Hz 12 VDC 1A wall plug-in UL/CSA listed AC power adapter (Cardinal part number 6800-1045) OR optional 6 "AA" NiMH batteries (1.2v/2700 mAh). **NOTE!** *On PZ3060, the batteries (Cardinal part number 6800-0020) ARE included.*
Tare	**ZERO** key on keypad, Lite Way Sensor or optional Foot Switch or Piezo Button
Operation Temperature	30 to 110 °F (-1 to 43 °C)
Humidity	75% without condensation
Capacity	15lb x 0.005 30lb x 0.01 60lb x 0.02
Certifications	NOT LEGAL FOR TRADE

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

1. Carefully remove the scale base and display from the shipping carton and inspect them for any evidence of damage (such as exterior dents and scratches) that may have taken place during shipment. Remove the packing material from the scale base and on the PZ3030, the shipping screw on the bottom of the scale base. Next, remove the protective covering from the display and keypad. *Keep the carton, packing material and shipping screw (on the PZ3030) for return shipment if it should become necessary.* NOTE! It is the responsibility of the purchaser to file all claims for any damages or loss incurred during transit.

2. To mount the display on the scale base, locate the two mounting screws on the display and the two slotted holes in the scale base bracket.

3. Lift the scale (by the bracket) high enough to allow you to align the two screws on the display with the large end of the two slotted holes in the bracket. Place the screws on the display in the bracket and gently pull forward to secure the display to the bracket.

4. Plug the AC power supply into the power jack, located on the bottom side of the display (refer to Figure 1) and then connect the AC power adapter into the proper electrical outlet.

5. If it is desired to use the scale remotely (no AC power), with the exception of the PZ3060, you must first obtain and install 6 NiMH batteries (2300mAh minimum). The batteries should then be allowed to charge approximately 8 hours. Charging the batteries for more than 8 hours *will not* harm them. The scale may be operated while the batteries are charging.

6. Place the scale on a stable, vibration-free, level surface away from direct sunlight and any rapidly moving air source (heating and cooling vents).

7. Place commodity tray on the scale. The scale is now ready to use.

⚠ **DO NOT place the scale on an unstable cart, stand or table. The scale may fall causing injury or damaging the scale, or proper operation may be inhibited.**
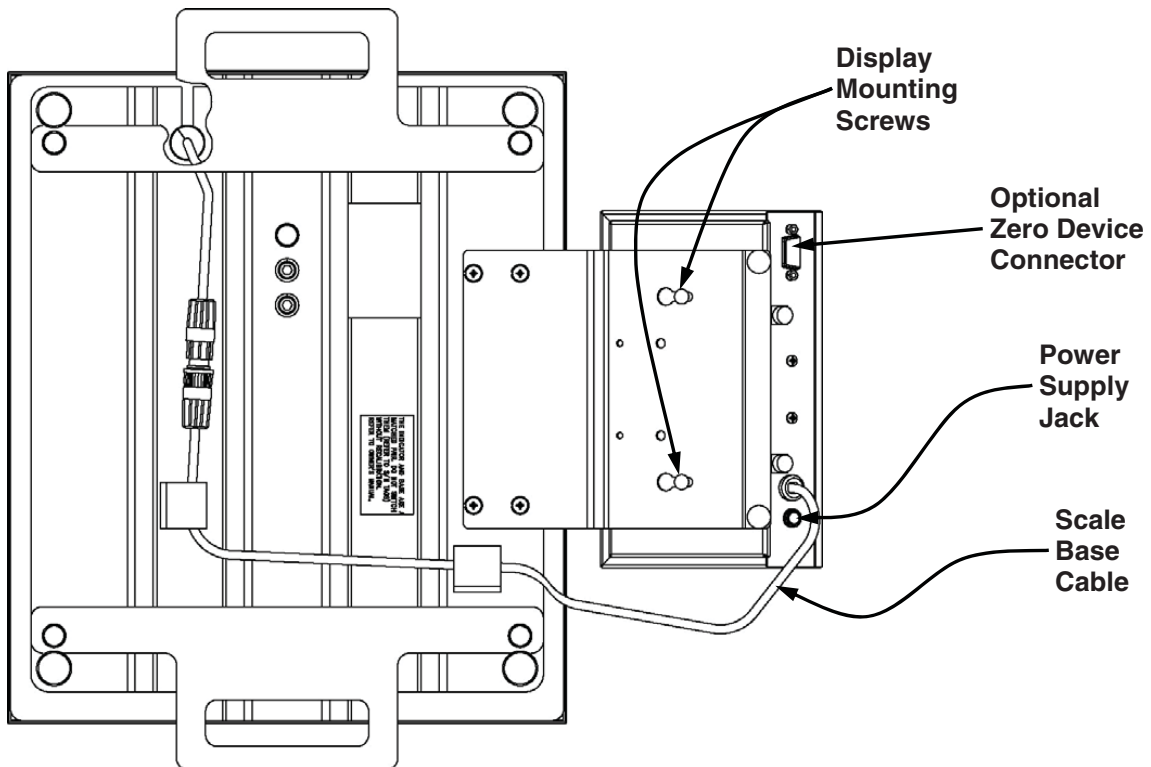

Display Mounting Screws

Optional Zero Device Connector

Power Supply Jack

Scale Base Cable

Figure No. 1

POWER CONNECTION

NOTE! The PZ3000 can be operated from a power supply or from 6 "AA" size, (2300mAh minimum) NiMH batteries. The power supply is also used to recharge the NiMH batteries. Batteries are available by ordering Cardinal part number, 6800-0020.

Power Supply

To power the PZ3000 using the power supply, connect the power supply's connector into the power jack on the bottom side of the display and then connect the 12 VDC, 1 Amp power adapter into the proper electrical outlet. See Figure 1. On models requiring 220 VAC, it is the customer's responsibility to obtain the correct power adapter plug. The scale is now ready for operation.

Battery Operation

Battery operation is a standard feature of the PZ3000 Series Ingredient Scale, although the batteries are optional (not included, except on model PZ3060). The scale will operate for up to 50 hours on fully charged batteries depending on the condition of the batteries (from new to about 500 recharges). The battery bar graph indicates the battery capacity in 4 steps:
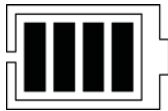
4 segments - the full battery capacity is available,
3 segments - the battery is at 75% of capacity,
2 segments - the battery is at 50% of capacity,
1 segment: - the battery is at 25% capacity.

When the battery voltage drops too low for accurate weighing, the display will show $LobAt$ and then shut off. You will be unable to turn the display back on until the AC power supply is connected to the display to operate it and recharge the batteries.

Battery Charging

To recharge the NiMH batteries, the AC power supply must be connected to a power outlet and plugged into the display. It will take approximately 4 to 8 hours to fully recharge the batteries in the display. Charging the batteries for more than 8 hours *will not* damage them. **NOTE!** The scale may be operated while the batteries are charging.

Battery Installation/Replacement

To install or remove the batteries, the following steps should be followed:

1. Remove the indicator from the scale, wall or table stand.

2. Turn the indicator so that the display is facing away from you and place it face down on a table or bench.

3. Referring to Figure No.2, locate the two screws on the angled edge of indicator. **NOTE!** The PZ3015 and PZ3030 use two thumbscrews and the PZ3060 uses two socket head cap screws instead of thumbscrews.

4. Remove the screws and washers under them.

5. Lift the battery door exposing the battery holder.

6. Referring to Figure No. 3, locate and remove the connector on the end of the battery holder.
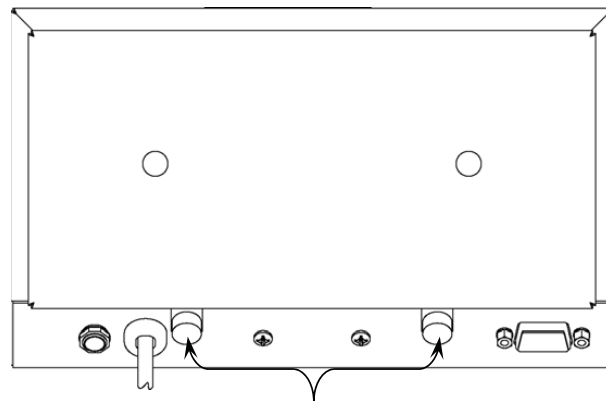
Remove these Screws

Figure No. 2

POWER CONNECTION, CONT.

7. Slide one side of the battery door so that it clears the edge of the indicator enclosure and then remove the battery door.

8. Place the battery door on a table or bench with the battery holder and battery strap up.

9. Referring to Figure No. 3, remove the 2 Philips screws securing the battery strap to the battery door and remove the strap.
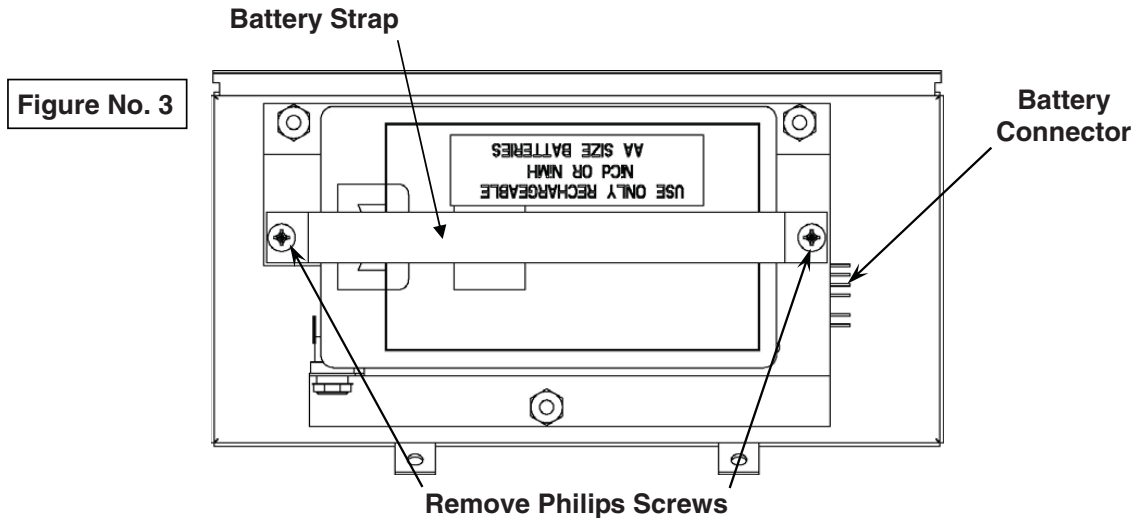
Battery Strap

Figure No. 3

Battery Connector

USE ONLY RECHARGEABLE
NiCd OR NiMH
AA SIZE BATTERIES

Remove Philips Screws

10. To install or replace the batteries, first remove the battery holder cover by pushing in on the tab and lifting it up. Refer to Figure No. 4.

11. If replacing the batteries, remove all 6 batteries from the battery holder. If installing new batteries, proceed to step 12.

> **NOTE!** To insure optimum performance of your PZ3000 when powered by the internal battery, replace <u>all</u> 6 batteries with new "AA" size, NiMH batteries (2300mAh minimum). DO NOT mix new and used batteries.

Figure No. 4

Battery Cover

USE ONLY RECHARGEABLE
NiCd OR NiMH
AA SIZE BATTERIES

Push in and lift here
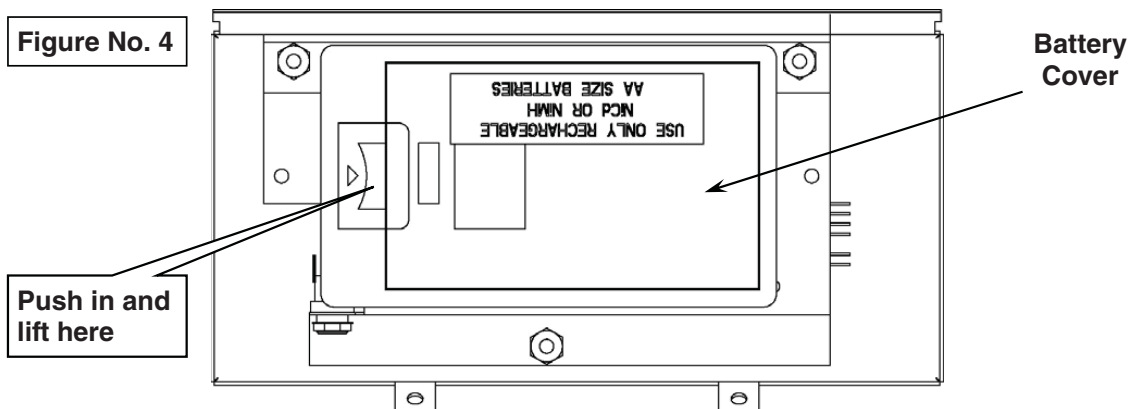
12. Install the 6 new "AA" size batteries in the battery holder, noting the polarity markings located in the battery holder. Refer to Figure No. 5.

13. After placing all 6 batteries in the holder, replace the battery cover and battery strap. Secure the battery strap with the 2 Philips screws removed earlier.

14. Replace the battery door on the indicator and then re-connect the connector on the end of the battery holder.

POWER CONNECTION, CONT.

Figure No. 5
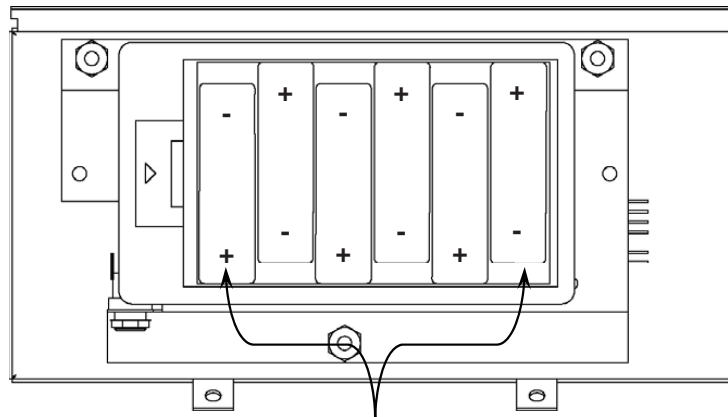
6 "AA" Size NiMH Batteries
(2300mAh minimum)

15. Insuring no wires are between the battery door and the back of the indicator, lower the battery door.

16. Install the two screws and washers removed in step 4. **NOTE!** The PZ3015 and PZ3030 use thumbscrews and should be finger-tightened only.

17. Return the indicator to the scale, wall or table stand.

18. Apply power to the PZ3000 using the power supply, to begin charging the new batteries.

19. The scale is now ready for operation.

Extended Battery Operation

In operations that require the remote use (no AC power) of the scale beyond the approximately 50 hours of continuous use, an auxiliary battery door assembly (CPN 8528-C365-0A) and 6 "AA" size, 2300 mAh minimum batteries (CPN 6800-0020) can be purchased to easily accommodate your operation.

The following steps describe how to remove the battery door and re-charge the batteries externally using the AC power adapter (battery charger).

1. Remove the indicator from the scale, wall or table stand.

2. Turn the indicator so that the display is facing away from you and place it face down on a table or bench.

3. Referring to Figure No.2, locate the two screws on the angled edge of the indicator and remove the screws and washers under them. **NOTE!** The PZ3015 and PZ3030 use two thumbscrews and the PZ3060 uses two socket head cap screws.

4. Referring to Figure No. 6 remove the connector from the end of the battery holder and then remove the battery door and set it aside.

5. Place the auxiliary battery door *with fully recharged batteries* on the indicator and then re-connect the connector to the end of the battery holder. See Figure No. 6.

6. Insuring no wires are between the battery door and the back of the indicator, lower the battery door and install the two screws and washers removed in step 3. **NOTE!** The PZ3015 and PZ3030 use thumbscrews and should be finger-tightened only.

7. Return the indicator to the scale, wall or table stand. The scale is ready for operation.

8. Place the battery door removed in step 5 on a table or bench with the battery holder and battery strap up.

POWER CONNECTION, CONT.

9. Referring to Figure No. 6, locate the battery charger jack on the battery door.

10. Plug the AC power adapter (battery charger) into the jack on the battery door and then connect the AC power adapter (battery charger) into the proper electrical outlet.

11. Allow approximately 4 to 8 hours to fully recharge the batteries.

Figure No. 6

Battery Connector

Battery Charger Jack

USE ONLY RECHARGEABLE
NiCd OR NiMH
AA SIZE BATTERIES
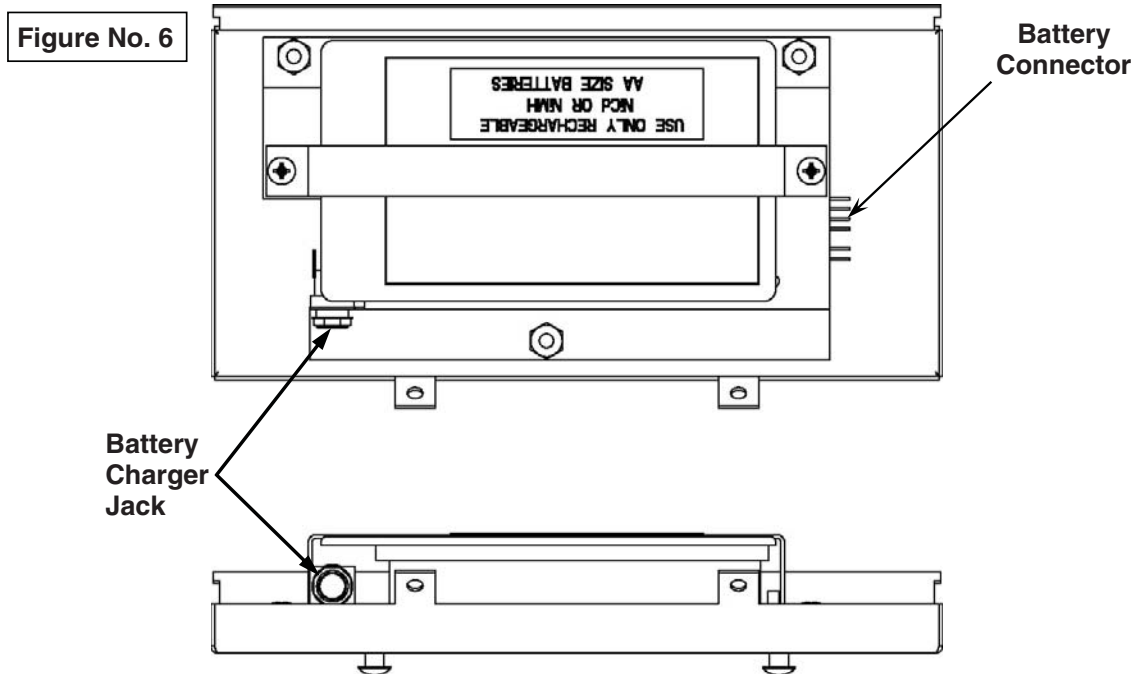
OPTIONAL ZERO DEVICES

In addition to the standard display pushbutton and "Lite Way" hands-free methods to zero the weight, the PZ3000 Series has an optional Foot Pedal or Mountable Pushbutton available. The model numbers for the optional zero devices are:

- PZFS for the foot pedal and
- PZPB for the mountable pushbutton.

Figure No. 7

Power Supply Jack

Scale Base Cable

Optional Zero Device Plugs in Here
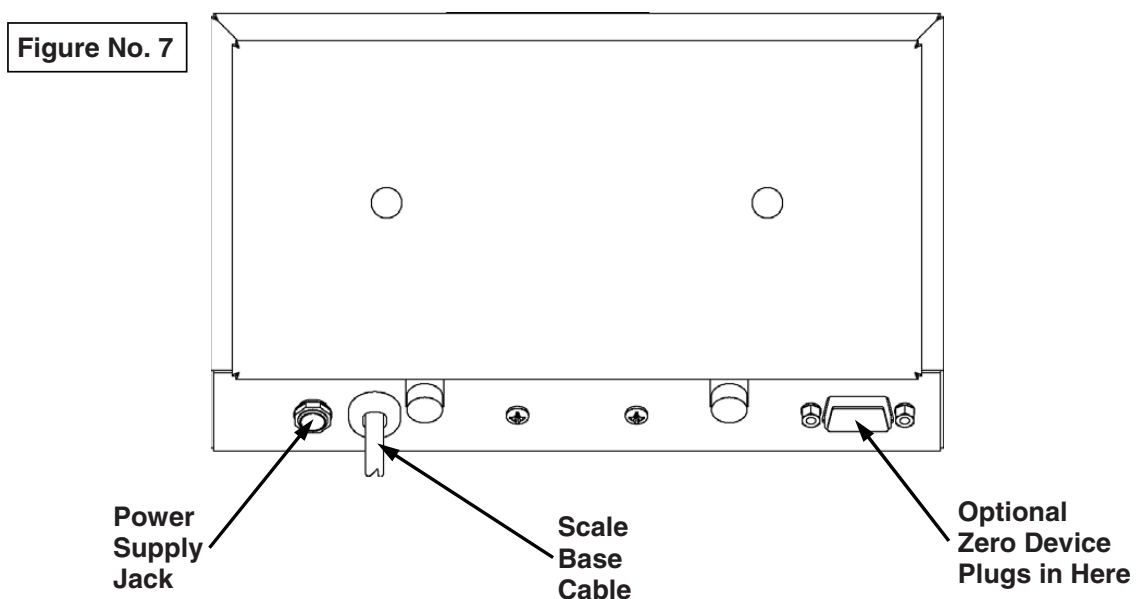
KEYPAD DESCRIPTION

The PZ3000 display is equipped with a membrane keypad containing 3 keys and the LITE-WAY photo-eye sensor. The keypad is shown in detail in Figure 8.
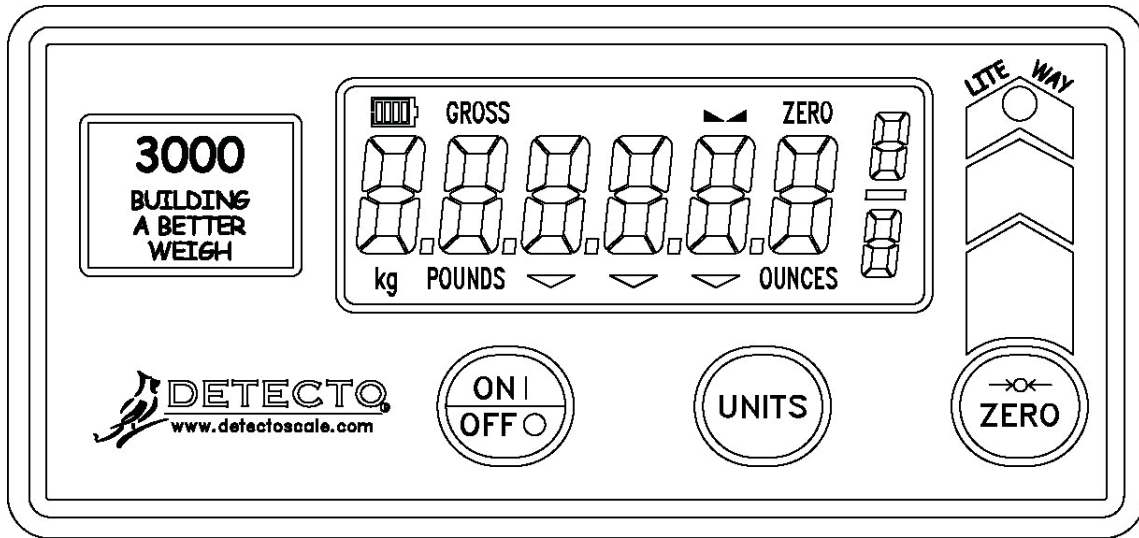
Figure No. 8

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

The following describes the use of each key.

Pressing this key will apply power to the instrument and turn on the scale. Note that you must press and hold the key for approximately 2 seconds for the scale to power up. If the scale is already on, pressing this key quickly will turn the scale off.

This key is also used to lock the weighing units. Refer to the "Operation" section of this manual for instructions on locking the weighing units.

This key is used to select the units in which the weight is to be displayed. The available units include pounds only, ounces only, pound-ounces with fraction, kilograms, pound-ounces with decimal point and grams.

Pressing this key when the scale is on will zero the scale.

With the LITE WAY photo eye enable in setup (*Photo 1 = 1* or *2*), passing your hand over the photo eye sensor will cause the scale to zero.

ANNUNCIATORS

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

▐▌▌▌▌▌

The low battery annunciator is located in the upper left corner of the display. It is used to indicate the battery status. Refer to the Power Connection section of this manual for more details.

GROSS

This annunciator is turned on to show that gross weight is displayed. Gross weight will be displayed when no tare weight is stored.

◣◢ (STABLE)

This annunciator is turned on when the weight display is stable. When off, it means that the change in successive weight samples is greater than the motion limits selected during setup.

ZERO

This annunciator is turned on to indicate that the weight displayed is within +/- 1/4 division of the center of zero.

kg

This annunciator is turned on to indicate the weight displayed is in kg (kilograms).

POUNDS

This annunciator is turned on to indicate the weight displayed is in pounds.

OUNCES

This annunciator is turned on to indicate the weight displayed is in ounces.

3/4

This annunciator is turned on to indicate the weight displayed is to the nearest 3/4 ounce.
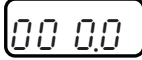
1/2

This annunciator is turned on to indicate the weight displayed is to the nearest 1/2 ounce.

1/4

This annunciator is turned on to indicate the weight displayed is to the nearest 1/4 ounce.

OPERATION

1. Press and hold (approximately 2 seconds) the **ON/OFF** key until the scale is powered up.

2. With no weight on the scale, press the **ZERO** key. [1]

3. After a brief moment, the display will show $\boxed{00 \; 0.0}$

4. The scale is now "zeroed" and ready for use.

5. Place container on the scale, the weight of the container will be displayed.

6. Press the **ZERO** key to return the scale to zero.

7. Add your first ingredient to the desired weight; re-zero the scale for the second ingredient by pressing the **ZERO** key.

8. Add the second ingredient to the desired weight and re-zero the scale for the next ingredient by pressing the **ZERO** key.

9. Continue adding ingredients in the same manner of operation.

10. After completion, remove the container and ingredients from the scale.

11. Press the **ZERO** key to re-zero the scale.

12. You are now ready to begin again.

[1] Instead of pressing the **ZERO** key, you can zero the scale by passing your hand over the "Lite Way" photo eye (if enabled) or with the optional Foot Switch (PZFS) or the mountable Pushbutton (PZPB).

Locking the Weighing Units

If desired, the weighing units can be locked to a specific unit. For example, if during Setup and Calibration, the scale was configured and calibrated in Pounds Only and you only want to weigh in Pounds/Ounces with the Fraction displayed, you would need to perform the following:

1. Press and hold (approximately 2 seconds) the **ON/OFF** key until the scale is powered up.

2. Press the **UNITS** key until the desired weighing units is shown on the display (the annunciators and/or fraction for the desired unit are turned on).

3. Press and hold the **ON/OFF** key for approximately 2 seconds. The scale will beep and the display will show Loc, indicating the selected weighing unit is now locked.

4. Once the weighing units are locked, the scale will always power up in the locked units and not in the units the scale was calibrated in. Note that even though the weighing units are locked, pressing the **UNITS** keys will still step through the alternate units.

5. To unlock the weighing units, press and hold the **ON/OFF** key for approximately 2 seconds. The scale will beep and the display will show $Unloc$.

CARE and MAINTENANCE

The heart of the PZ3000 Ingredient 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 submerge, pour or spray water directly on the scale base or weight display.
DO NOT expose the scale base or display to direct sunlight or temperature extremes.
DO NOT place the scale base or display in front of heating/cooling vents.
DO NOT use acetone, thinner or other volatile solvents for cleaning.
DO clean the scale base or 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 the surroundings clear to provide clean and adequate air circulation.

SETUP and CALIBRATION

Your PZ3000 Ingredient 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.

⚠ **IMPORTANT! The display and scale base are a matched pair. Do not switch them (refer to S/N tags) without recalibration.**

To Begin Setup and Calibration:

1. Press and hold the **ZERO** key.
2. Press and hold the **ON/OFF** key until the scale display shows *3000*.
3. Release the **ON/OFF** key.
4. The display will change to show *Photo 1=*.
5. Release the **ZERO** key to enter the setup mode.

> During setup and calibration it will be necessary to enter data using the scale's keyboard. Pressing the **ZERO** key will show the current value of a setting. Pressing the **ZERO** key again will save the displayed setting value and advance to the next prompt. To change a setting, press the **UNITS** key to "toggle" between the different available values. On settings with 2 digit values, press the **ON/OFF** key to advanced to the next position. Note that the blinking character is the cursor location of the value to be changed. To exit setup, press the **ON/OFF** key at any prompt.

Photo 1= **(LITE WAY Photo Eye)**
With the display showing *Photo 1=*, press the **ZERO** key to show the current setting. If the value displayed is acceptable, press the **ZERO** key again to save it. Otherwise, use the **UNITS** key to step through the selections for a new value. When the desired value is displayed, press the **ZERO** key to save it. Allowable values are:

> **0** = Wavy Zero Turned Off
>
> **1** = Wavy Zero intensity set to 0 to 2 inches
>
> **2** = Wavy Zero intensity set to 6 inches maximum

bAC Lt= **(Back Light)**
With the display showing *bAc Lt=*, press the **ZERO** key to show the current setting. If the value displayed is acceptable, press the **ZERO** key again to save it. Otherwise, use the **UNITS** key to step through the selections for a new value. When the desired value is displayed, press the **ZERO** key to save it. Allowable values are:

> **0** = Back Light Turned Off
>
> **1** = Back Light set to continuously on
>
> **2** = Back Light comes on after key press or change in weight

bEEP= **(Beeper)**
Press **ZERO** key to show current setting. If value displayed is acceptable, press **ZERO** key again to save it. Otherwise, use **UNITS** key to step through selections for a new value and then press **ZERO** key to save it. Allowable values are:

> **0** = Disable Beeper   **1** = Enable Beeper

SETUP and CALIBRATION, Cont.

FLt: **(Digital Filter Level Selection)**
Your scale will arrive with factory filter settings of 0 = Minimal (PZ3060 will be 2 = Heavy). *Please check with Tech Support before changing filter level, break range and sample rate.*

Press **ZERO** key to show current setting. If value displayed is acceptable, press **ZERO** key again to save it. Otherwise, use **UNITS** key to step through selections for a new value and then press **ZERO** key to save it. Allowable values are:

   0 = Minimal Filter   **2** = Heavy Filter   **1** = Moderate Filter   **3** = Custom Filter

NOTE! If 3 = Custom Filtering is selected, three additional prompts will be displayed.

FLtLUL: **(Filter Level)**
Press **ZERO** key to show current setting. If value displayed is acceptable, press **ZERO** key again to save it. Otherwise, use **UNITS** key to step through selections for a new value and then press **ZERO** key to save it. Allowable values are 1 (least amount of filtering) to 99 (greatest amount of filtering).

br: **(Break Range)**
Press **ZERO** key to show current setting. If value displayed is acceptable, press **ZERO** key again to save it. Otherwise, use **UNITS** key to step through selections for a new value and then press **ZERO** key to save it. Allowable values are 1 to 99 which correspond to the number of division changes to break out of filtering.

Sr: **(Sample Rate)**
Press **ZERO** key to show current setting. If value displayed is acceptable, press **ZERO** key again to save it. Otherwise, use **UNITS** key to step through selections for a new value and then press **ZERO** key to save it. Allowable values are a minimum of 1 sample per second to a maximum of 16 samples per second in one sample per second intervals.

UnItS: **(Weighing Units)**
Press **ZERO** key to show current setting. If value displayed is acceptable, press **ZERO** key again to save it. Otherwise, use **UNITS** key to step through selections for a new value and then press **ZERO** key to save it. Allowable values are:

1 = Pounds Only	**4** = Kilograms
2 = Ounces Only	**5** = Pounds/Ounces with Decimal Point
3 = Pounds/Ounces with Fraction	**6** = Grams

NOTE! If **3** = Pounds/Ounce with Fraction is selected, an additional prompt (*FrAct:*) will be displayed. In addition, the *int* (Interval Setting) and *dPP* (Decimal Point Position) will be skipped.

FrACt: **(Fraction Interval)**
Press **ZERO** key to show current setting. If value displayed is acceptable, press **ZERO** key again to save it. Otherwise, use **UNITS** key to step through selections for a new value and then press **ZERO** key to save it. Allowable values are:

   0 = No Fraction   **2** = 1/2   **4** = 1/4   **8** = 1/8

int: **(Interval Setting)**
With the display showing *int:*, press the **ZERO** key to show the current setting. If the value displayed is acceptable, press the **ZERO** key again to save it. Otherwise, use the **UNITS** key to step through the selections for a new value. When the desired value is displayed, press the **ZERO** key to save it. Allowable values are: 1, 2, or 5.

SETUP and CALIBRATION, Cont.

dPP= **(Decimal Point Position)**

With the display showing *dPP=*, press the **ZERO** key to show the current setting. If the value displayed is acceptable, press the **ZERO** key again to save it. Otherwise, use the **UNITS** key to step through the selections for a new value. When the desired value is displayed, press the **ZERO** key to save it. Allowable values are:

<div align="center">1= XXXXX.X   2 = XXXX.XX   3 = XXX.XXX</div>

CAP= **(Scale Capacity)**

With the display showing *CAP=*, press the **ZERO** key to show the current setting. If the value displayed is acceptable, press the **ZERO** key again to save it. Otherwise, use the **UNITS** key and the **ON/OFF** key to select the capacity. Note that the cursor location is identified by the blinking character and can be advanced to the next position (left) by pressing the **ON/OFF** key. Pressing the **UNITS** key will change the blinking character to the next value. Verify that the numbers selected are the same as the weight listed on the capacity label and then press the **ZERO** key to save it.

CAL= **(Calibration)**

With display showing *CAL=*, press **ZERO** key. The display will change to show current setting *0* (0 = NO, skip calibration). If scale has been previously calibrated and you wish to skip calibration and proceed to Store Setup and Calibration, press **ZERO** key again.

To begin calibration, press **UNITS** key to select 1 (YES, calibrate scale) and then press **ZERO** key. Display will change to *LOAd=*.

LOAd= **(Load Calibration Weight)**

The display will change to *LOAd=* which is a prompt for the entry of the calibration weight value and placement of this amount of test weights on the scale platform.

1. Make certain the scale platform is empty and free of debris, then place the desired amount of calibrated test weights on the scale platform. It is recommended that a minimum of 50% of the scale's capacity be used but 70% to 100% is preferred.
2. Press the **ZERO** key.
3. Determine the exact amount of test weights to be placed on the scale platform and then using the **UNITS** key and the **ON/OFF** key select this value. Note that the cursor location is identified by the blinking character and can be advanced to the next position (left) by pressing the **ON/OFF** key. Pressing the **UNITS** key will change the blinking character to the next value. Verify that the numbers selected are the same as the total weight of the test weights.
4. Press the **ZERO** key.
5. Starting at the left and proceeding right, a series of dashes will appear on the display. The dashes will disappear and the display will change to *UnLd*.

UnLd **(Unload Calibration Weight)**

1. With display showing *UnLd*, remove the test weights from the scale platform.
2. Press the **ZERO** key.
3. Starting at the left and proceeding right, a series of dashes will appear on the display. The dashes will disappear and the display will change to *oFF* and the scale will turn off.

STORE SETUP AND CALIBRATION

To complete setup and calibration and <u>store</u> setup and calibration data, perform the following:

1. Press and hold (approximately 2 seconds) **ON/OFF** key until scale is turned on.
2. The display will immediately change to *oFF* and the scale will turn off.
3. Setup and calibration data is now stored in scale's nonvolatile memory.
4. Press and hold (approximately 2 seconds) **ON/OFF** key until scale is turned on.
5. Scale is now ready for operation.

TROUBLESHOOTING

The following describes conditions you may encounter while operating this scale. Instructions are provide to help you correct the problem. If you are still unable to resume normal operating functions, please contact your nearest scale technician or our Technical Support Department.

Negative Weight Display

$$-9\ 15$$

The scale will display a negative weight when the scale base has been emptied or partially emptied without re-zeroing the scale. To re-zero the scale, press the **ON/ZERO** key, wait for the display to read zero, and start the procedure again.

No Weight Displayed

Is the power supply cable plugged into the PZ3000 display? Is the AC power adapter plugged into a wall receptacle? Check the wall receptacle for proper AC power. Try another electrical appliance in the same receptacle. Does it work? Check the circuit breaker. Has there been a power failure of any kind? Are the batteries discharged?

Incorrect Weight Reading

Insure that the scale platform isn't touching an adjacent object. The display will show an incorrect weight when there is a product buildup under the platter. Clean the platter and place on the scale platform securely. Test with a known amount of weight to see if the correct weight is displayed. Have proper operation procedures been followed? If problem persists, the scale may need re-calibration. Contact your scale serviceman.

Error Messages

| DISPLAY	POSSIBLE CAUSE	CORRECTIVE ACTION
UnSt	This message indicates that motion is present when attempting to perform one of the following operations: Power Up or Pressing the **ON/OFF** key on the keypad	Insure scale is on a stable, vibration-free, level surface away from any rapidly moving air source (such as heating and cooling vents). **NOTE!** When attempting to zero scale, wait for a stable weight display.
-oF-	This message indicates an attempt to display a negative weight greater than -9 lb 15 oz.	Insure the scale is at zero. If problem persists, contact your scale serviceman.
-oL-	This message indicates the weight on scale exceeds the scale capacity.	Remove the weight from the scale platform. Insure the scale is at zero. If problem persists, contact your scale serviceman.
CALb	This message indicates that the scale needs calibration.	Contact your scale serviceman.
ErrAL	The load cell input is below the range of the indicator.	Remove power, and then reapply power. If problem persists, contact your scale serviceman.
ErrAH	The load cell input is above the range of the indicator.	
ErrA	This message indicates the display is not receiving the signal from the scale base.	Inspect the scale cable and connector for damage. If problem persists, contact your scale serviceman.
oFF	This message is displayed to indicate the scale is turning off.	

PARTS IDENTIFICATION

(Display Assembly)
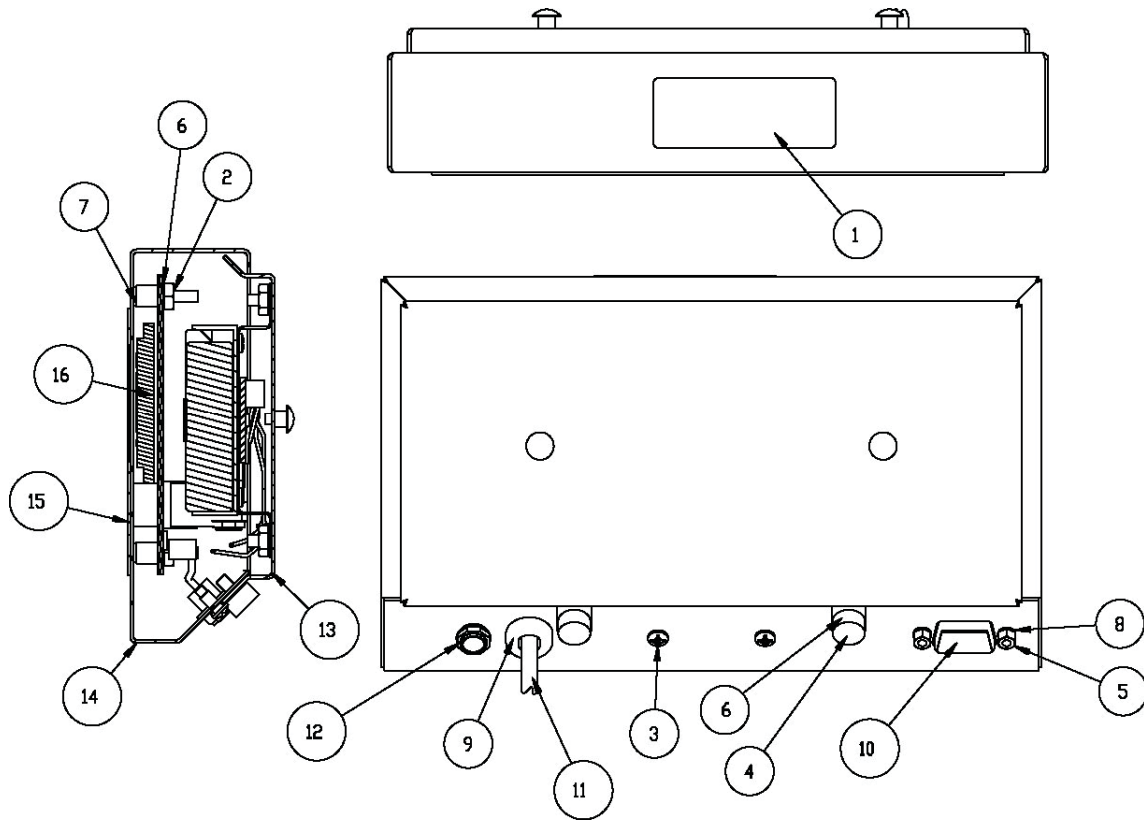
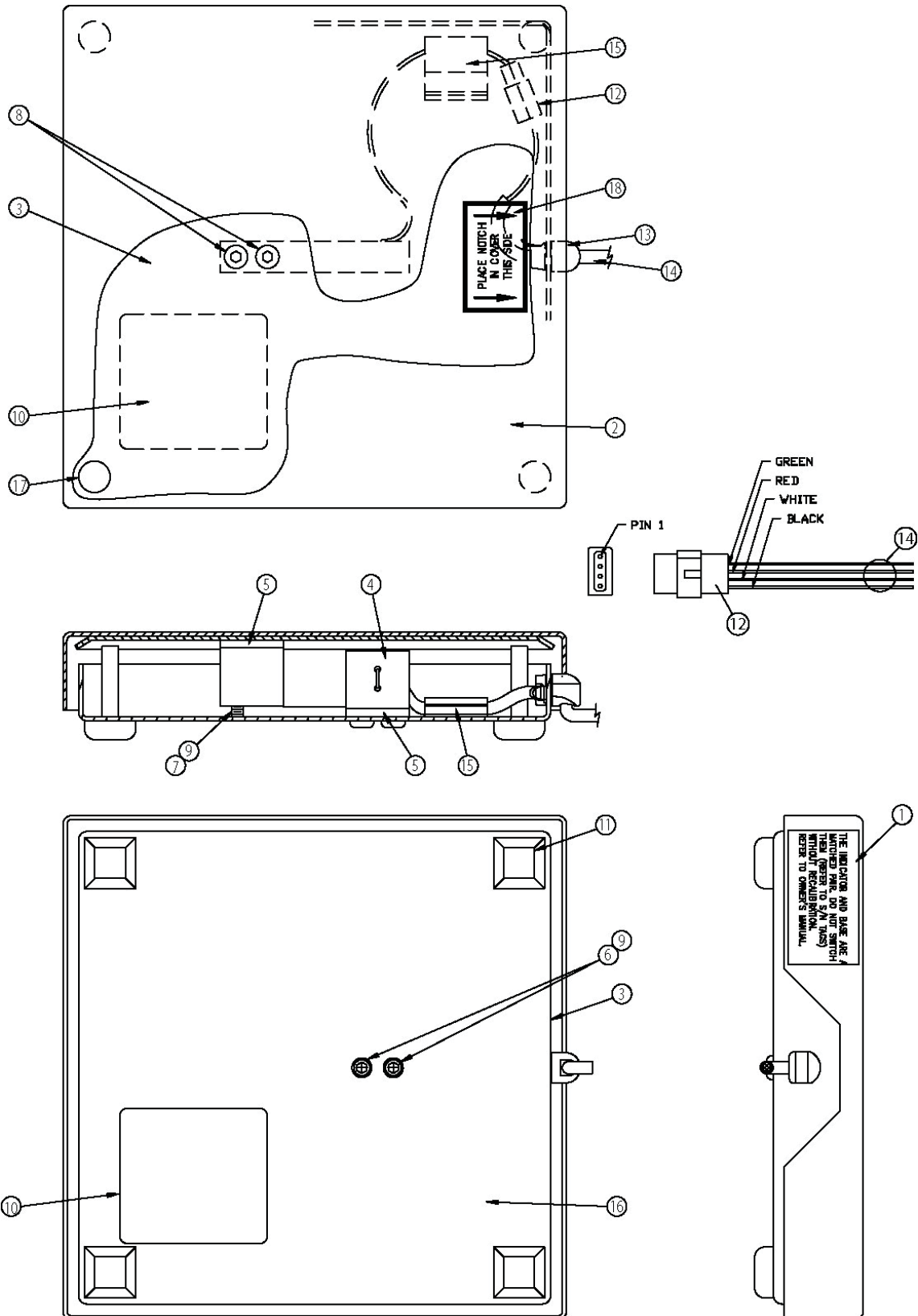| ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	593GR986	SERIAL TAG
2	4	6013-0039	NUT HEX #6-32
3	2	6021-0661	SCW PAN HEAD #6-32 X .25 X S.S.
4	2	6021-1032	THUMB SCRW, 6-32 X 0.25 (PZ3015, 3015L & 3030)
		6021-0300	SCW SOCKET HEAD CAP SCREW (PZ3060)
5	2	6610-2000	JACK SOCKET
6	6	6680-0004	WASHER LOCK INT. TOOTH #6 Z/P
7	4	6680-0045	SPACER (PCB) #6 X .250
8	2	6680-0052	WASHER LOCK #4 Z/P
9	1	6980-0015	STRAIN RELIEF BUSHING SR 5N-4 BLACK
10	1	8528-B377-0A	ZERO CABLE
11	1	8528-B378-0A	LOAD CELL CABLE
12	1	8528-B379-0A	DC POWER CABLE
13	1	8528-C365-0A	BATTERY DOOR ASSEMBLY
14	1	8528-C366-0A	ENCLOSURE WELDMENT
15	1	8528-D351-08	KEYPAD
16	1	8528-D359-0A	PCB ASSEMBLY

PARTS IDENTIFICATION
(Battery Door Assembly)
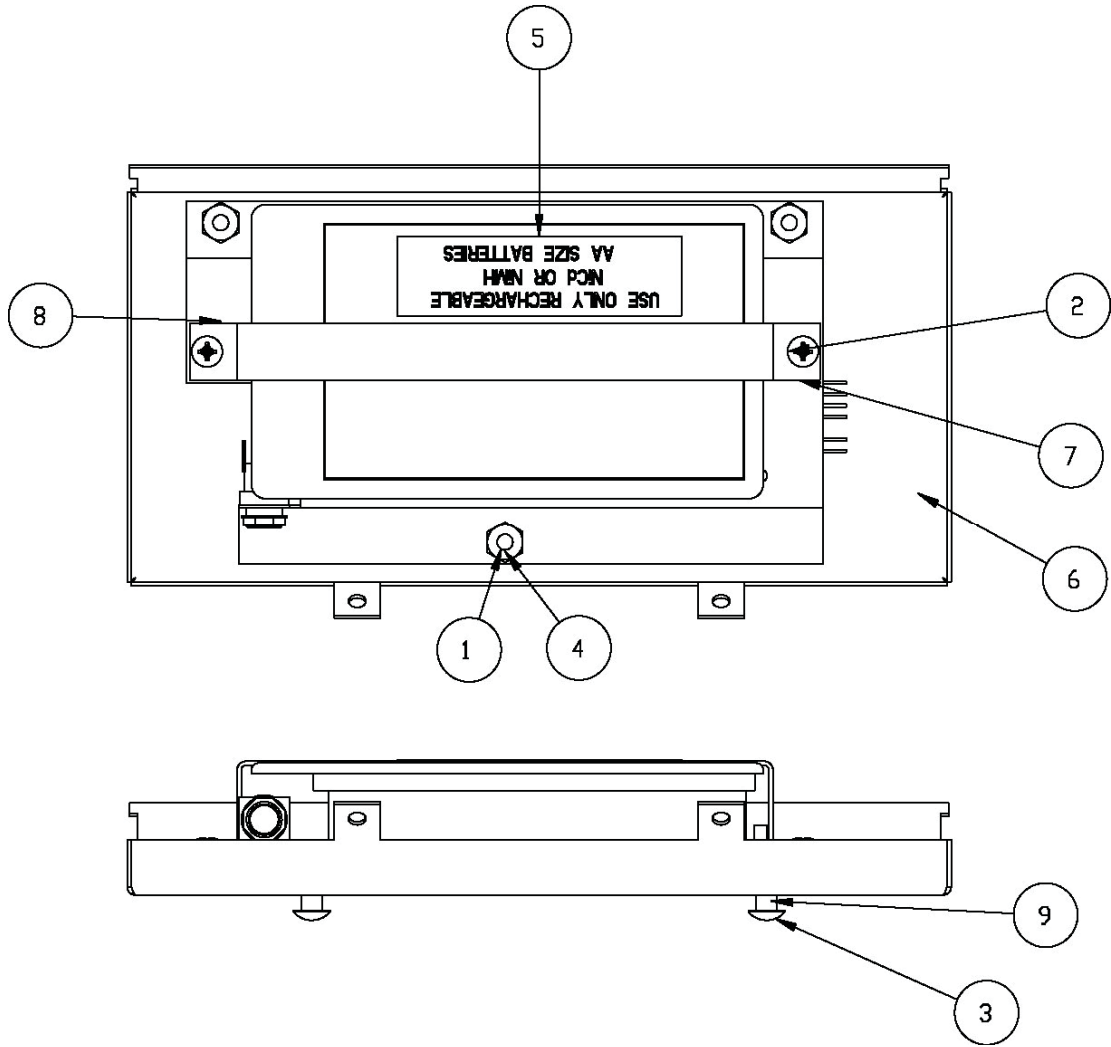
ITEM	QTY	PART NUMBER	DESCRIPTION
1	3	6013-0039	NUT HEX #6-32
2	2	6021-0654	SCW PAN HEAD #6-32 x .250 PDMS
3	2	6021-0687	SCW TRUSS HEAD #6-32 x .312 THMS
4	3	6680-0004	WASHER LOCK INT. TOOTH #6 Z/P
5	1	8528-B272-08	LABEL: BATTERY REQ. PZ2500
6	1	8528-B364-0A	BATTERY DOOR WELDMENT
7	1	8528-B391-08	BATTERY RETAINER
8	1	8528-C374-0A	BATTERY PACK ASSEMBLY
9	2	8555-B159-08	SPACER, 758C MOUNT
✶	1	6800-1045	AC ADAPTER, 100-240VAC/12VDC @ 1 AMP
✶	6	6800-0020	BATTERY, NiMH 1.2V/2700mAH, AA SIZE (Included on PZ3060) (Optional on PZ3015, PZ3015L & PZ3030)

✶ Not Shown
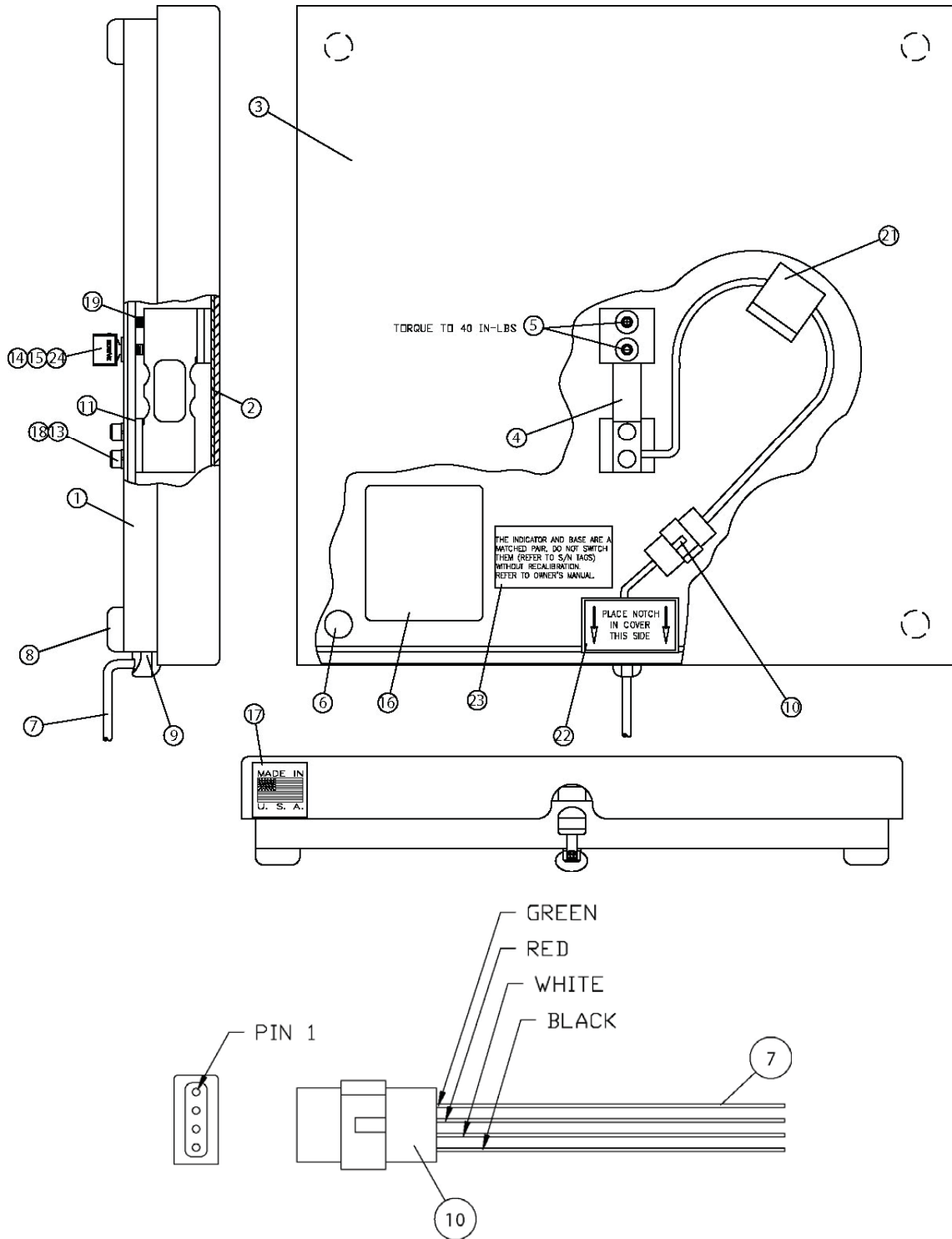
PARTS IDENTIFICATION

(PZ3015 Base Assembly)

PLACE NOTCH
IN COVER
THIS SIDE

GREEN
RED
WHITE
BLACK

PIN 1

THE INDICATOR AND BASE ARE A
MATCHED PAIR. DO NOT SWITCH
THEM (REFER TO S/N TAGS)
WITHOUT RECALIBRATION.
REFER TO OWNER'S MANUAL.

PARTS IDENTIFICATION

(PZ3015 Base Assembly)

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	428R1079	DECAL
2	1	427R1366	COMMODITY TRAY
3	1	427R1365	WEIGHBRIDGE
4	1	8528-B110-0A	LOAD CELL ASSY.
5	2	587R9378	LOAD CELL SPACER
6	2	6021-1124	#10-32 X .75 SOC HD S.S.
7	1	6021-1258	#10-32 X .375 SET SCW
8	2	6021-1074	#10-32 X .5 FHMS S.S.
9	1	6560-0021	LOCTITE
10	1	593GR986	SERIAL TAG
11	4	6540-1004	RUBBER FOOT
12	1	6610-3000	CONNECTOR HOUSING
13	1	6980-0004	STRAIN RELIEF
14	1	8528-B392-0A	CABLE: LOAD CELL (9 FT)
15	1	6610-5007	CABLE CLIP
16	1	8534-C623-0A	SCALE BASE
17	4	6540-1058	RUBBER PAD
18	1	593R1021	LABEL

PARTS IDENTIFICATION

(PZ3015L, PZ3030 Base Assembly)

TORQUE TO 40 IN-LBS ⑤

THE INDICATOR AND BASE ARE A MATCHED PAIR. DO NOT SWITCH THEM (REFER TO S/N TAGS) WITHOUT RECALIBRATION. REFER TO OWNER'S MANUAL.

PLACE NOTCH IN COVER THIS SIDE

MADE IN U. S. A.

GREEN
RED
WHITE
BLACK

PIN 1

PARTS IDENTIFICATION

(PZ3015L, PZ3030 Base Assembly)

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	8528-C262-0A	BASE PLATE WELDMENT
2	1	8528-D264-08	WEIGHBRIDGE
3	1	8528-D263-08	COMMODITY TRAY
4	1	8528-B110-0A	LOAD CELL ASSEMBLY DF-50T
5	2	6021-2003	FLAT HEAD SCREW .625 SOCKET HEAD
6	4	6540-1058	RUBBER PAD
7	1	8528-B392-0A	CABLE: LOAD CELL (9 FT)
8	4	6540-1004	RUBBER FEET STICK ON
9	1	6980-0004	STRAIN RELIEF
10	1	6610-3000	CONNECTOR PLUG
11	3	587R9378	SPACER LOAD CELL
13	2	6024-0037	LOCK WASHER #10 HELICAL
14	1	6021-2002	THUMB SCREW #10-32 X 3/4"
15	1	8529-B045-08	LABEL REMOVE
16	1	593GR986	SERIAL TAG
17	1	6650-0087	STICKER MADE IN USA
18	2	6021-2001	CAP SCREW #10-32 X 1" SOCKET HEAD S.S.
19	1	6021-1258	SET SCREW #10-32 X .375
21	1	6610-5007	CABLE CLIP
22	1	593R1021	LABEL "NOTCH THIS SIDE"
23	1	428R1079	LABEL PZ SCALE DECAL
24	1	6024-1484	FLAT WASHER #10 S.S.

PARTS IDENTIFICATION

(PZ3060 Base Assembly)

GREEN
RED
WHITE
BLACK

PIN 1
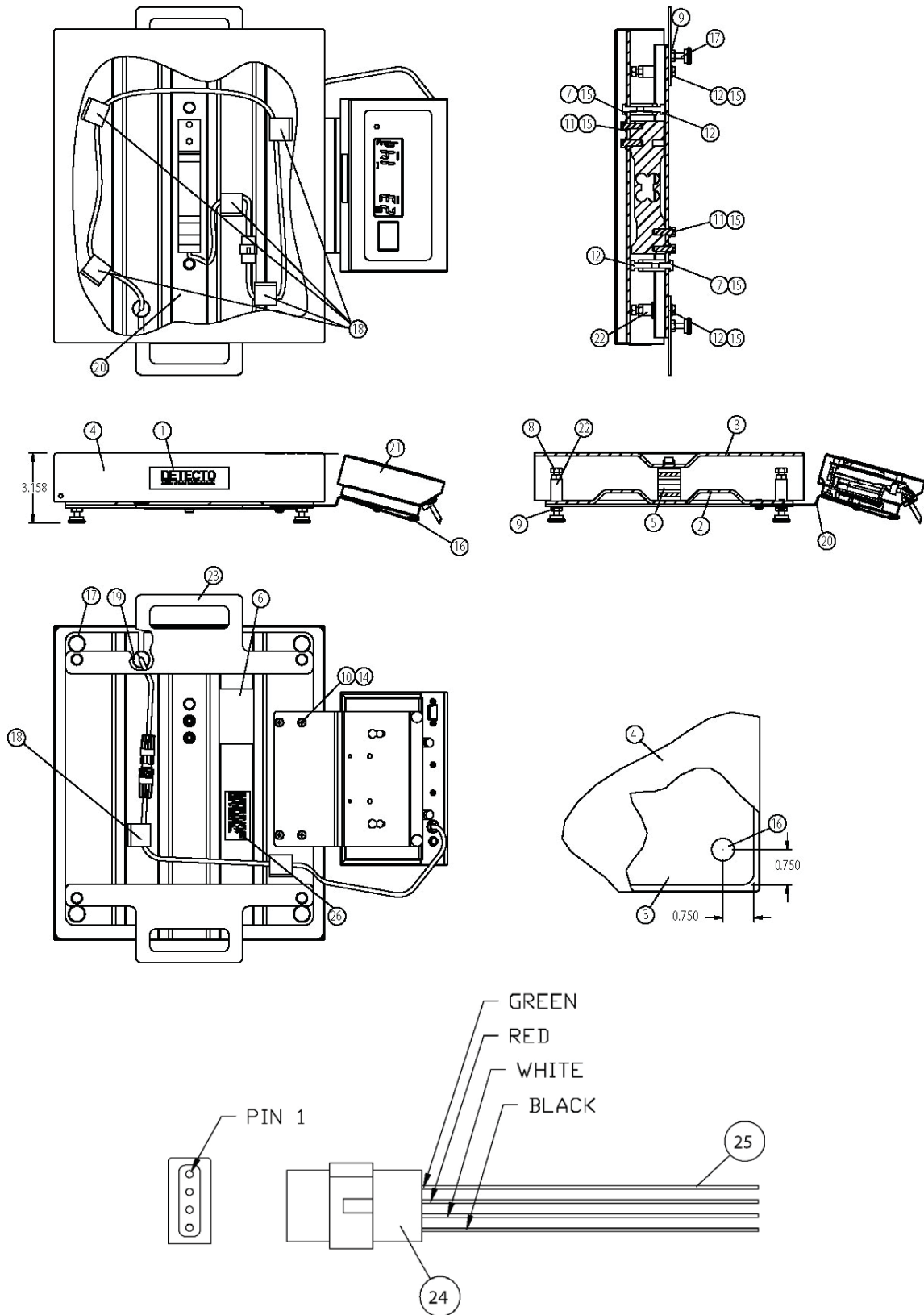
PARTS IDENTIFICATION
(PZ3060 Base Assembly)

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1961-B006-08	LABEL, DETECTO
2	1	1961-D002-08	BASE PLATE
3	1	1961-D004-08	WEIGHBRIDGE
4	1	1961-D005-08	COMMODITY TRAY
5	1	2950-C121-4A	LOAD CELL TSP-100KG
6	1	593GR986	SERIAL TAG ASSEMBLY
7	2	6007-0009	HEX HEAD BOLT 1/4-20 X 1/2" Z.P.
8	4	6007-0011	BOLT, HEX HEAD 1/4-20 X 1" Z.P.
9	10	6013-0045	NUT, HEX 1/4-20
10	4	6021-1013	#10-32 X .375 RHMS
11	4	6021-1429	1/4-20 X 0.75 SHCS
12	6	6021-1454	SCREW, HEX HEAD 1/4-20 X 0.75
13	2	6450-0001	RUBBER FOOT, 0.5 SQ X 0.23 HIGH, WHT, ADHES
14	4	6024-0037	WASHER, LOCK #10 HELICAL SPLIT
15	10	6024-0040	WASHER LOCK HELICAL 1/4 S.S.
16	4	6540-1058	RUBBER PAD
17	4	6540-1130	LEVELING FOOT
18	7	6610-5007	CABLE CLIP
19	1	6680-1091	RUBBER GROMMET
20	1	8528-C381-08	INDICATOR MOUNTING BRACKET, FRONT
21	0	8528-D367-1A	DISPLAY ASSEMBLY
22	6	8540-B454-08	1/4-20 SPACER X 1/2 O.D. X 1"
23	2	8528-B274-08	HANDLE
24	1	6610-3000	CONNECTOR PLUG #03-06-2042
25	1	8528-B392-1A	CABLE: LOAD CELL (9 FT)
26	1	428R1079	PZ SCALE DECAL

NOTES

STATEMENT OF LIMITED WARRANTY

Detecto Scale 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 one **(1) year** 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 supply all necessary replacement parts and service during normal weekday working hours at no charge to the buyer.

After the first ninety (90) days Detecto will supply parts and service at the job site provided the owner agrees to pay the Dealer for all travel time, including mileage and test equipment, as well as any expenses incurred over the direct labor of the technician at the job site. This limited warranty honors only labor performed by Detecto authorized dealers.

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 components be returned to the factory; they 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 loss or damage in transit.

STATEMENT OF LIMITED WARRANTY

Conditions Which Void Limited Warranty

This warranty shall not apply to equipment which:
A.) Has been tampered with, defaced, mishandled or have had repairs and modifications not authorized by Detecto.
B.) Has had serial number altered, defaced, or removed.
C.) Has not been 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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DETECTO®
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