



Cardinal[®]

DETECTO

VET-400

VETERINARY SCALE

Owner's Manual



1930-M352-O1 Rev D
11/06

CARDINAL SCALE MFG. CO.
PO BOX 151 • WEBB CITY, MO 64870
PH (417) 673-4631 • FAX (417) 673-5001
Web Site - www.detectoscale.com

Printed in USA

Technical Support: Ph: 866-254-8261 • techsupport@cardet.com

INTRODUCTION

Thank you for your purchase of our Detecto VET-400 Electronic Veterinary Scale. It was built with Detecto quality and reliability at our factory in Webb City, Missouri. 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

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.

All rights reserved. Reproduction or use, without expressed written permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. While every precaution has been taken in the preparation of this manual, the Seller assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from use of the information contained herein. All instructions and diagrams have been checked for accuracy and ease of application; however, success and safety in working with tools depend to a great extent upon the individual accuracy, skill and caution. For this reason the Seller is not able to guarantee the result of any procedure contained herein. Nor can they assume responsibility for any damage to property or injury to persons occasioned from the procedures. Persons engaging the procedures do so entirely at their own risk.

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

TABLE OF CONTENTS


- INTRODUCTION 1
- SPECIFICATIONS 1
- UNPACKING INSTRUCTIONS 2
- INSTALLATION 2
 - Installing the Deck or Rubber Mat 2
 - Interconnections 2
 - Scale Base Connection 2
 - Power Supply 3
 - Batteries 3
 - Battery Operation 3
 - Battery Charging 3
 - Battery Installation/Replacement 3
- OPERATION 5
- ERROR AND STATUS DISPLAYS 6
- BEFORE YOU CALL SERVICE 6
- CARE AND CLEANING 7
- PARTS IDENTIFICATION 8

SPECIFICATIONS


Power Requirements	6 "AA" size Alkaline, Ni-Cad or NiMH batteries (not included) OR an optional 100 to 240 VAC 50/60Hz 12 VDC 1A wall plug-in UL/CSA listed AC power supply.
Platform Size	22" x 42" x 2" Stainless Steel with Pad
Capacity	400 lb x .2 lb (180 kg x .1 kg)
Operating Temperature	14° to 104° F (-10° to +40° C)
Shipping Weight	73 lb

PRECAUTIONS

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



IMPORTANT



ELECTRICAL WARNING

UNPACKING INSTRUCTIONS

The VET-400 is shipped in two (2) cartons. One carton will contain the weight indicator and the other carton will house the scale base (with 15 ft. coiled cable), the Stainless Steel deck or optional Rubber mat, and the Desk Stand/Wall mount bracket for the indicator.

Before starting to assemble, please unpack carefully and remove all wrappings and fillers. Inspect the unit for any signs of damage due to shipping, such as exterior dents and scratches. It is the responsibility of the Purchaser to file all claims for any damages or loss in transit incurred. Retain packing and shipping carton for return of scale if necessary.

INSTALLATION

Installing the Deck or Rubber Mat

To install the Stainless Steel deck on the scale, place the scale base in front of you on a desk or table. Lower the deck onto the scale base. **NOTE:** If the optional Rubber Mat was substituted for the Stainless Steel deck, the mat is placed directly on the scale weighbridge.

Interconnections

Both the VET-400 scale base and power connections to the weight indicator are made at the bottom rear panel of the indicator. Refer to Figure No. 1 for the rear panel layout.

Scale Base Connection

The scale base connection to the weight indicator is made via a 15 ft. coiled cable with a modular type connector on one end and a 9-pin "D" type connector on the other. The modular connector of the coiled cable should be inserted into the mating connector socket on the scale base until it locks into place. The 9-pin connector plugs into a 9-pin "D" type jack located on the bottom rear panel of the indicator and is secured by two (2) screws.



Figure No. 1

INSTALLATION, Cont.

Power Supply

To power the weight indicator without batteries, connect the 12 VDC, 1 Amp power supply's connector into the power jack on the lower back of the indicator and then plug the power supply 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.

NOTE! The power supply is also used to recharge the batteries, when the weight indicator is operated from Ni-Cad or NiMH batteries.

Batteries

Battery operation is a standard feature of the weight indicator, although the batteries are optional (not included). The indicator can be operated from 6 "AA" size Alkaline, Ni-Cad or NiMH batteries. You must first obtain and install batteries before operations can begin. Batteries are contained in a battery holder inside the indicator. Access is via a removable panel on the back of the indicator.

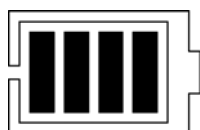
When using batteries, all 6 batteries must be of the same type. They must be all Alkaline, Ni-Cad or all NiMH. In addition, **DO NOT** mix Ni-Cad or NiMH batteries.



CAUTION! The weight indicator has internal circuitry that when used in conjunction with the external power supply, recharges the Ni-Cad or NiMH batteries. Because the indicator has this charging capability, **DO NOT** connect a power supply to the indicator if using Alkaline batteries.

Battery Operation

The weight indicator will operate for up to 250 hours on new Alkaline batteries or for up to 100 hours on fully charged Ni-Cad or NiMH batteries depending on the condition of the batteries (from new to about 500 recharges). The battery bar graph on the display 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 indicator will show *LoBAt* and then shut off. You will be unable to turn the indicator back on until the Alkaline batteries have been replaced or the AC power supply is connected to the display to operate it and recharge the Ni-Cad or NiMH batteries.

Battery Charging

To recharge the Ni-Cad or NiMH batteries, the AC power supply must be connected to a power outlet and plugged into the indicator. It will take approximately 8 to 10 hours to fully recharge the batteries in the display. Charging the batteries for more than 10 hours *will not* damage them. **NOTE!** The indicator may be operated while the batteries are charging.

INSTALLATION, Cont.

Battery Installation/Replacement

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

1. Remove indicator from desk stand/wall mount bracket if used.
2. Turn the indicator so that the display is facing away from you.
3. Locate the rectangular panel on back of indicator.
4. 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. 2.
5. If installing new batteries, proceed to step 6. If replacing the batteries, remove all 6 batteries from the battery holder and then proceed to step 6.
6. Install the 6 new “AA” size batteries in the battery holder, noting the polarity markings located in the battery holder. Refer to Figure No. 3.
7. After placing all 6 batteries in the holder, replace the battery cover.
8. Make sure power supply is unplugged, and then turn indicator over (display facing up) and press **ON / OFF** key.
9. If display turns on, batteries have been installed correctly. If not, remove panel and check for one or more improperly positioned batteries.
10. Return the indicator to desk stand/wall mount bracket if used.
11. The scale is now ready for operation.

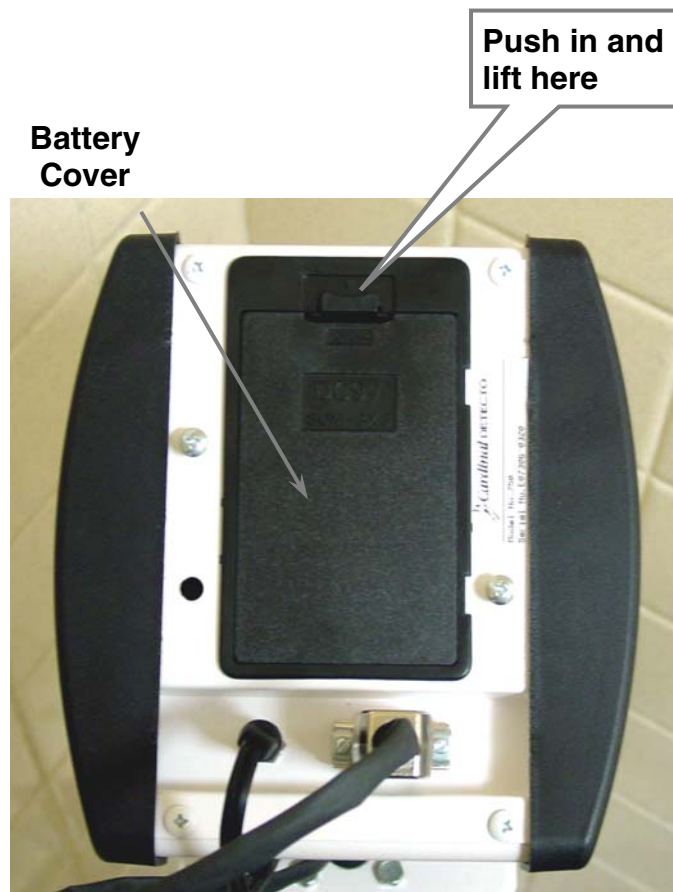


Figure No. 2



Figure No. 3

OPERATION

Basic Weighing Operation

To Weigh

1. Press **ON / OFF** key to turn on indicator.
2. Press **ZERO** key to zero weight display. The ZERO and lb or kg annunciator will turn on to show that scale is ready for use.
3. Place animal on scale and read weight display.
4. Remove animal from scale.

Zero Weight Display

1. If the indicator is not showing zero weight on the display, press **ZERO** key.
2. Weight display will return to zero. ZERO, STABLE $\blacktriangleleft\blacktriangleright$ and lb or kg annunciators will turn on to show a stable, center-of-zero weight condition.

Metric Conversion

Press **UNITS** key to toggle between pounds and kilograms. Note that lb or kg annunciator will turn on to show which weighing unit is active.

Zero Weight Display with Item on Scale

1. Place item (basket, box, etc...) on scale.
2. Display will show weight of item on scale.
3. Press **ZERO** key.
4. Weight display will return to zero. ZERO, STABLE $\blacktriangleleft\blacktriangleright$ and lb or kg annunciators will turn on. The item's weight has been "zeroed off".
5. Proceed with weighing operation.



Figure No. 4



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

ERROR AND STATUS DISPLAYS

Display	Meaning
-Err-	General error, invalid keypad entry was attempted.
-OF-	Attempting to display a negative number greater than -9,999 or a positive number greater than 99,999
-ErrL-	Indicates an attempt to zero a weight outside scale zero range. (See Four Percent Zero Tracking Range Limit).
-UnS-	Motion is present when indicator is attempting to perform one of the following operations: Power Up Zero or Zero Weight Display
CALib	Indicates calibration is necessary.
AdErr	} Consult your scale service representative.
ErrAL	
ErrRH	
OCAP	Scale weight exceeds scale capacity
OFF	Displayed to indicate indicator is turning off.

BEFORE YOU CALL FOR SERVICE

PROBLEM	POSSIBLE SOLUTIONS
Display does not turn on	<p>AC Operation:</p> <ul style="list-style-type: none"> • Is AC power supply fully inserted into wall receptacle? • Check wall receptacle for proper AC power. Try another electrical appliance in same receptacle, does it work? • Check circuit breaker. • Has there been power failure? <p>Battery operation:</p> <ul style="list-style-type: none"> • Check if batteries are installed and correctly. • Are batteries discharged? <p>If Alkaline, remove old batteries and replace with new ones.</p> <p>If NI-CAD or NiMH, connect the 12 VDC, 1 Amp power supply's connector into the power jack on the back of the indicator and then plug the power supply into the proper electrical outlet to operate the indicator and recharge the batteries.</p>
Incorrect weight displayed	Insure that scale platform isn't touching an adjacent object. Have proper operation procedures been followed?
Indicator will not display weight	Refer to Error and Status Displays section.

CARE AND CLEANING

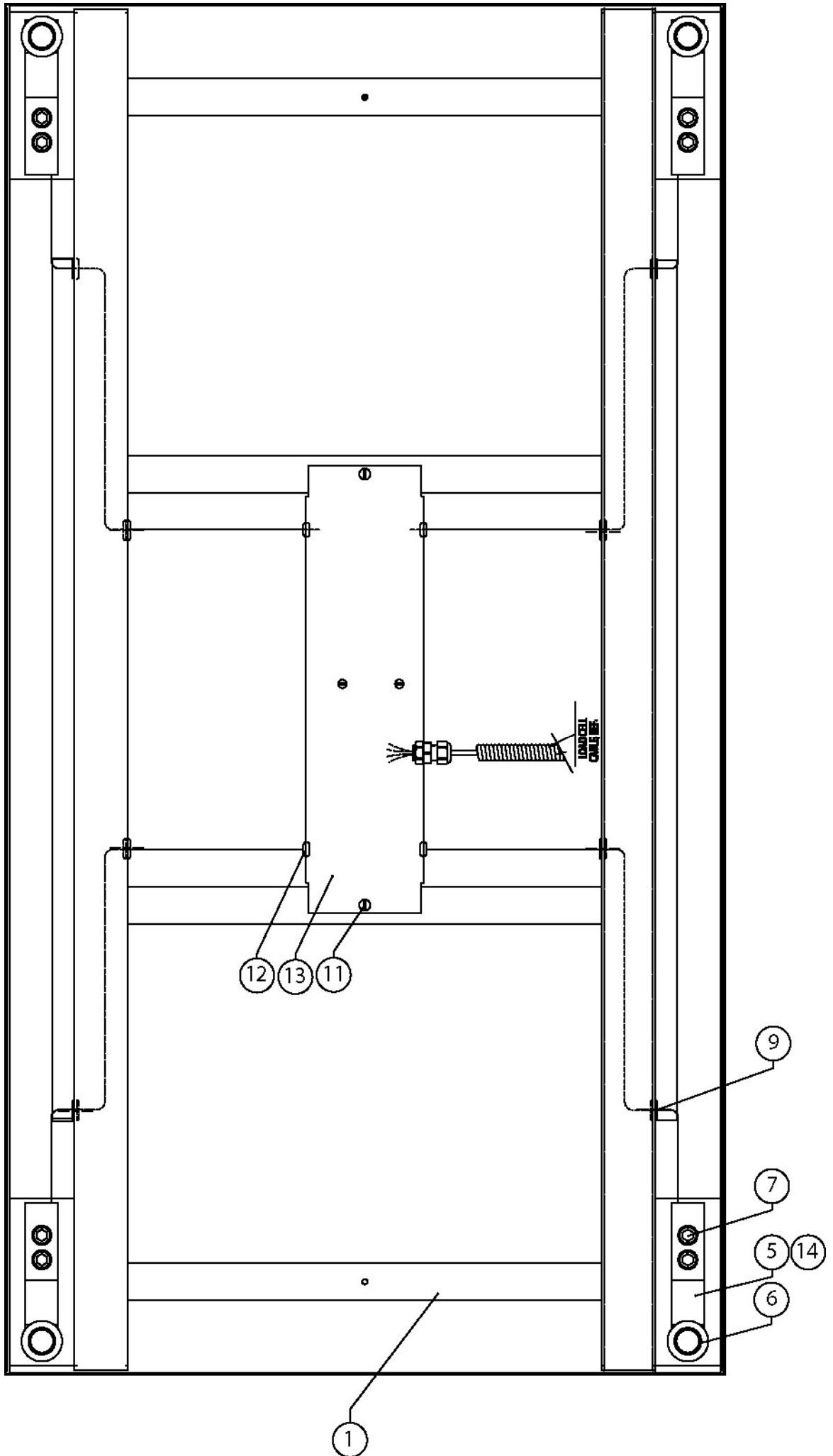
The VET-400 scale base contains precision load cells and will provide accurate operation indefinitely if protected against overload of scale capacity, dropping items on the scale, or other extreme shock.

- **DO NOT** submerge indicator or scale base in water.
- **DO NOT** pour or spray water directly on indicator or scale base.
- **DO NOT** use an abrasive cleaner, acetone or other volatile solvents for cleaning indicator or scale base.
- **DO NOT** expose equipment to temperature extremes.
- **DO NOT** place equipment in front of heating/cooling vents.
- **DO** clean the indicator with a damp soft cloth and mild non-abrasive detergent.
- **DO** clean the scale deck with a soft cloth dampened with a mild detergent. The scale deck may be removed and washed with a mild 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.

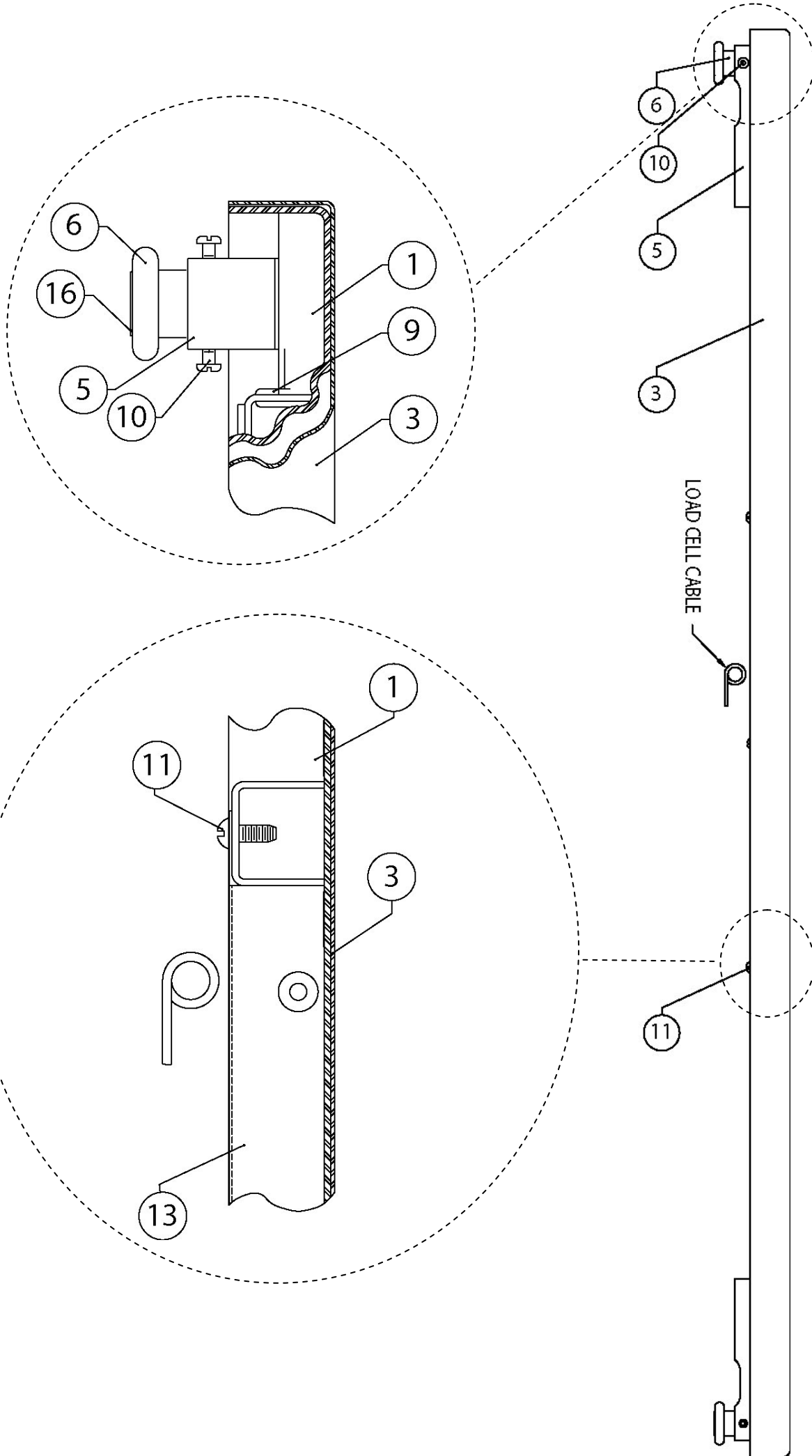
PARTS IDENTIFICATION

ITEM	QTY.	PART NUMBER	DESCRIPTION
1	1	1930-D232-0A	WEIGHBRIDGE
3	1	1930-D164-08	STAINLESS STEEL DECK
5	4	LFB-250M	LOAD CELL ASSY
6	4	0065-B108-08	ALFB FOOT
7	8	6021-2063	SHCS (3/8" -24 UNF-2A x 1")
9	8	6680-1043	GROMMET
10	4	6021-0106	SCW PAN HEAD (#6-32x3/8 S.S. TYPE F PHIL DR)
11	2	6021-1006	RHMS SELF-TAP (#10-32 UNC-2A x 1/2")
12	4	6680-0068	GROMMET
13	1	3502-C331-0A	J-BOX ASSEMBLY
14	4	6020-0011	ROLL PIN (1/8" DIA. x 3/4" LONG)
16	4	6540-1122	RUBBER FOOT (0.81 DIA.)

PARTS IDENTIFICATION



PARTS IDENTIFICATION



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.



Ph. (800) 641-2008
E-mail: detecto@cardet.com
203 E. Daugherty
Webb City, MO 64870

02/06
Printed in USA
D268-WARRANTY-DET

