



**Floor Hugger**  
**Series FHN**  
**Low Profile Electronic**  
**Platform Scale**  
**Owner's Manual**

1932-M033-O1  
REV C  
05/01

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Your low profile platform scale is designed and manufactured with quality and reliability at our factory in Webb City, Missouri. Optional inclined ramps may be installed for easy approach and exit of scale. Four electronic load cells support the scale platform and are connected at a centrally located junction box where calibration adjustments may be made. These load cells are self checking and environmentally sealed.

A lifting eye bolt is shipped with your scale and should be conveniently stored, along with the shipping bolts, after completion of scale installation. The shipping bolts and lifting eye bolt will need to be reinstalled if scale is relocated in the future

Your low profile platform scale has been factory calibrated to perform within the specifications set forth in Handbook #44 issued by the United States Department of Commerce, National Institute of Standards & Technology, as a "legal for trade" weighing device. If re-calibration is required upon completion of installation, such procedures should be performed by a scale technician familiar with calibration and performance requirements of Handbook #44.

This manual provides instruction for unpacking, installing and calibration of your scale. A Trouble Shooting Guide was written so you may isolate or correct a problem before calling a scale technician.

Please read this manual thoroughly and pay special attention to these warning symbols:



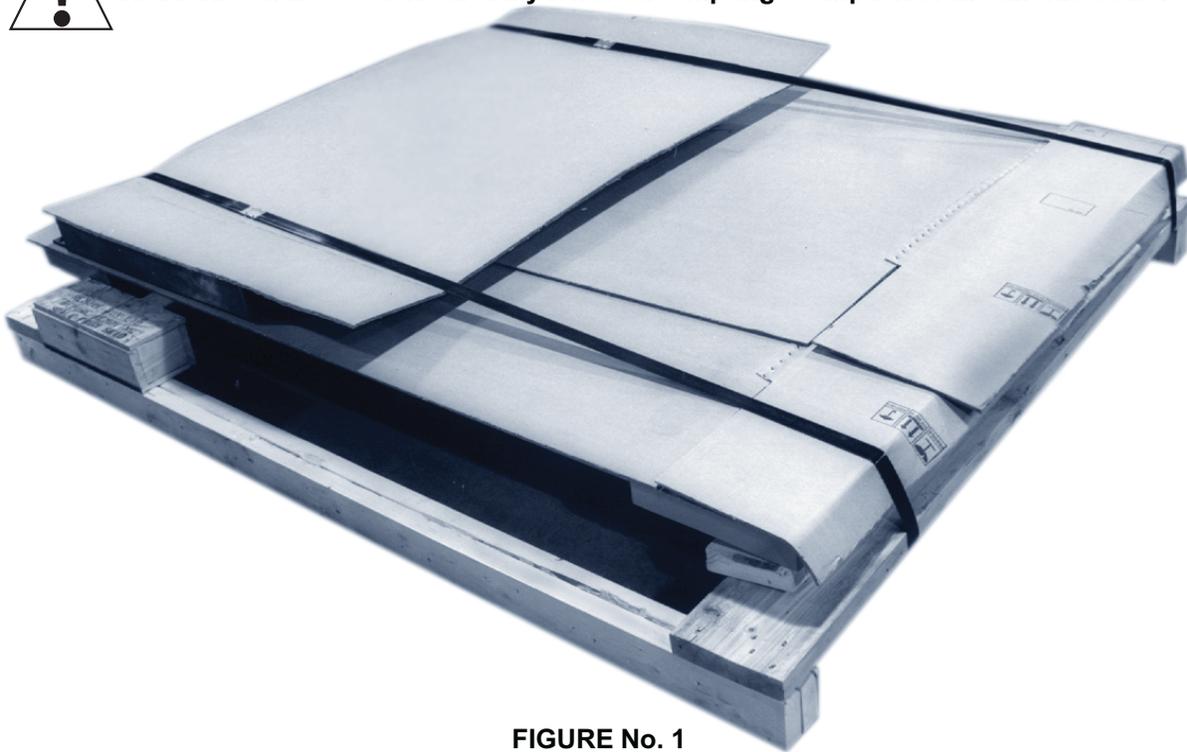
All rights reserved. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. While every precaution has been taken in the preparation of this book, the Seller assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the 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.

## INSTALLATION

The following section outlines procedures for unpacking and installation of your scale.



**Read this entire section carefully before attempting to unpack or install this scale.**



**FIGURE No. 1**

Inspect the shipping container for any signs of damage such as exterior dents and scratches. It is the responsibility of the purchaser to file all claims with the shipping company for damages or loss incurred during transit, unless this responsibility has been accepted by the Seller in its proposal. Scale should remain packed until you are ready to install it, protecting it while being stored.

Remove shipping bands and packing material. Make certain "all" packing material is removed. Remove wooden box containing load cell cable from pallet. Place on scale platform until further instructions are given.



**BE CERTAIN scale location is level and free of debris.**

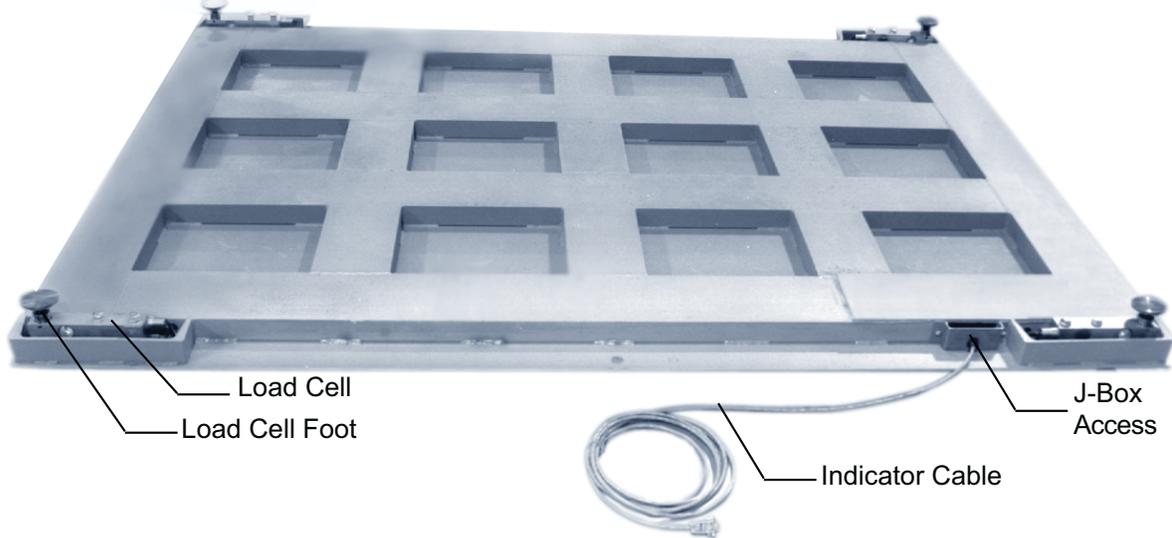
Using the lifting eye bolt provided, move scale to final location.



**DO NOT push or slide scale, damage to load cells may result.**

Once you have positioned the scale in its final location, adjust feet to level scale. Make certain weight is evenly distributed over each of the four corner plates.

## INSTALLATION Continued



**FIGURE No. 2**

If ramps are to be installed, we recommend raising the scale and positioning the ramps where the foot capture plates are located directly beneath the feet and then gently lowering the scale.



**MAKE CERTAIN that the feet are captured properly inside the foot plates and that the scale platform does not come in contact with the ramp(s) as this can interfere with weighments taken.**

Remove load cell cable from wooden box, connect cable to weight indicating instrument, following instructions provided in instrument manual.



**Make certain cable is not placed near heating or cooling ducts, relay panels, ovens or other types of electrical equipment. All cables should be routed out of the way of normal traffic and secured to prevent accidental damage to operator and/or instruments.**

After connection has been made, power-up and zero weight indicator according to indicator manual directions.

## CALIBRATION PROCEDURE

Your scale was factory adjusted to  $\pm .05$  percent accuracy at the factory. Minor changes in calibration due to shock and vibration encountered during shipping may necessitate re-calibration.



**The following procedures require a known test weight, make certain test weight is accurate.**

Place test weight or weights equal to 10 percent of the scales capacity on scale platform. Record the weight displayed. If displayed weight does not fall within this  $\pm .05$  percent value of test weight, scale may need re-calibrated.

## CALIBRATION PROCEDURE Continued



It should be noted that in addition to the  $\pm .05\%$  tolerance  $\pm 1/2$  graduation is added when connected to digital display.

Please check the following before proceeding:

Make certain proper installation procedures were followed.

Is debris near or under scale deck (such as packing material) restricting proper scale operation?



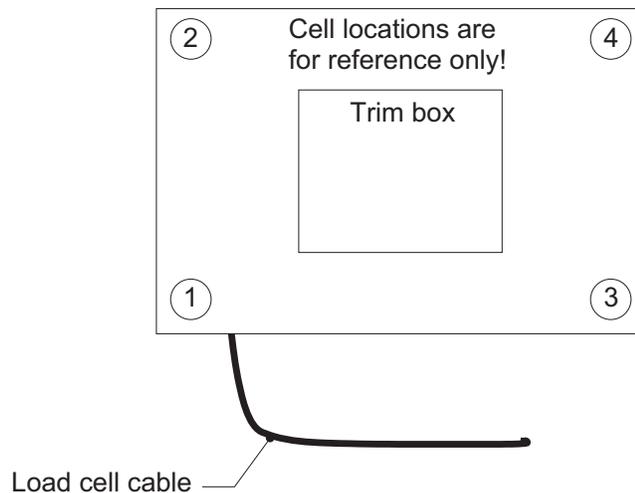
**Calibration procedures should be performed by a qualified scale technician or someone familiar with scale calibration procedures.**

Place test weight equal to ten percent of the scales capacity over each of the four load cells, one at a time. Record each displayed weight. If difference in displayed weight exceeds  $\pm .05$  percent of the test weight, trimming adjustments for your load cells must be performed. Refer to TRIM ADJUSTMENT Section for further instruction. If all four weight readings are within the allowable tolerance ( $\pm .05$  percent of test weight), weight indicator should be re-calibrated in accordance with the indicator manual.

## TRIM ADJUSTMENT

The purpose of adjusting trim is so the same weight reading will be displayed regardless of where the load is placed on the scale deck. All scales are corner trimmed before leaving the factory. In the event of re-calibration or load cell replacement, follow instructions below to re-trim corners. It is assumed the other three load cells are already corner sealed to agree with each other. If not, please refer to next page for further instruction.

1. Remove junction box cover access plate located on the side of the scale.
2. Remove junction box access cover.
3. Refer to Figure No. 3 for load cell location reference.
4. Turn trim potentiometer for the load cell needing re-calibration clockwise 25 turns, or until a click is heard indicating the end of the potentiometer adjustment.
5. Place a test weight on each corner, one at a time, and record the displayed weight for each corner.
6. Place test weight on the corner with the highest reading and adjust the appropriate trim potentiometer until the weight reading agrees with the lowest reading obtained in Step 5.
7. Repeat Step 6 until all corners have the same weight reading.
8. Replace screws securing the junction box cover and access plate.



## TRIM ADJUSTMENT Continued

If two or more load cells must be replaced or scale needs an overall resealing of each corner, these procedures should be followed.

1. Remove the junction box access plate located on the side of the scale deck. Remove junction box access cover.
2. Turn all potentiometers clockwise 25 turns or until a click is heard. Now turn all potentiometers counterclockwise 1 (one) turn.
3. Place test weight of at least 10 percent of scales capacity on each corner , one at a time, and record each displayed weight.
4. Place test weight on corner with the highest displayed weight and adjust appropriate trim potentiometer counterclock until corner reading agrees with lowest weight reading.
5. Repeat Step No. 4 until all corners are equal.
6. Re-calibrate weight indicator following procedures in indicator manual.
7. Replace screws securing the junction box cover and access plate.

**EXAMPLE:**

	CORNER #			
1000# TEST WEIGHT	1	2	3	4
DISPLAYED WEIGHT READING	1020	1016	1017	1021

1. Place test weight on each corner, one at a time, and record each displayed weight.
2. Place test weight on corner no. 1 and adjust no. 1 trim potentiometer to reduce displayed weight to the lowest corner reading (No. 2 in example).
3. Repeat step 2 with corners no. 3 and 4 until all corners are in agreement.
4. Calibrate weight indicator following instructions provided in its manual.

## TROUBLE SHOOTING GUIDE

If difficulty is encountered with the operation of the scale a visual check of the scale platform should be made to make certain operation is not restricted by foreign material, such as packing material, etc.

The trouble shooting guide, on the following page, should prove useful in isolating and correcting a problem with the scale. If problem cannot be resolved with the use of this trouble shooting guide, contact a qualified scale technician for service.

Problem	Cause	Solution
1. Scale reads accurate weight to a point, but will not register beyond that point.	Obstruction between floor and bridge.	Remove obstruction.
2. Cannot obtain repeatable readings.	A. Scale not level B. Bad or improper wiring C. Bad load cell D. Bad trim circuit board	A. Level Scale B. Check wiring & solder connections C. Replace load cell D. Replace trim circuit board

**FIGURE No. 4**

