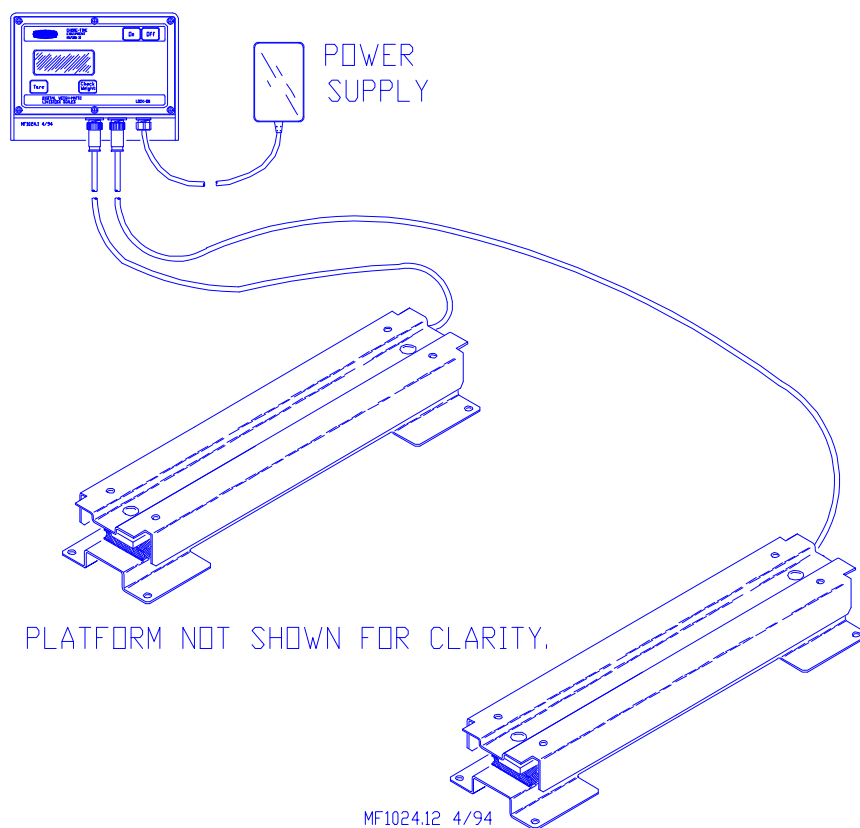


# *Livestock Scale* *Installation, Operation,* *&* *Troubleshooting Guide*

*for*

*2000 lb and 6000 lb Scale*

*(907 kg and 2721 kg)*



## WARRANTY INFORMATION

Chore-Time Equipment warrants each new product manufactured by it to be free from defects in material or workmanship for one year from the date of initial installation by the original purchaser. If such a defect is found by Chore-Time to exist within the one year period, Chore-Time will, at its option, (a) repair or replace such product free of charge, F.O.B. the factory of manufacture, or (b) refund to the original purchaser the original purchase price, in lieu of such repair or replacement.

Additional extended warranties are herewith provided to the original purchaser as follows:

1. RLX Fans, less motors, for three years from date of installation.
- \*2. Poultry feeder pans that become unusable within five years from date of installation. Warranty prorated after three years usage.
3. MEAL-TIME® Hog Feeder pans that become unusable within five years of installation.
4. Rotating centerless augers, excluding applications involving High Moisture Corn (exceeding 18%), for ten years from date of installation. Note: MULTIFLO® and applications involving High Moisture Corn are subject to a one year warranty.
5. Chore-Time manufactured roll-formed steel auger tubes for ten years from date of installation.
- \*6. Laying cages that become unusable within ten years. Warranty prorated after three years usage.
- \*7. ULTRAFLO® Auger and ULTRAFLO® Feed Trough (except ULTRAFLO® Trough Liners) are warranted for a period of five (5) years from date of original purchase against repeated breakage of the auger or wear-through of the feed trough.

### Conditions and limitations:

1. The product must be installed and operated in accordance with instructions published by Chore-Time or warranty will be void.
2. Warranty is void if all components of a system are not supplied by Chore-Time.
3. This product must be purchased from and installed by an authorized Chore-Time dealer or certified representative thereof, or the warranty will be void.
4. Malfunctions or failure resulting from misuse, abuse, negligence, alteration, accident, or lack of proper maintenance shall not be considered defects under this warranty.
5. This warranty applies only to systems for the care of poultry and livestock. Other applications in industry or commerce are not covered by this warranty.

Chore-Time shall not be liable for any consequential or special damage which any purchaser may suffer or claim to have suffered as a result of any defect in the product. "Consequential" or "special damages" as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs and operational inefficiencies.

THIS WARRANTY CONSTITUTES CHORE-TIME'S ENTIRE AND SOLE WARRANTY AND CHORE-TIME EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE SOLD AND DESCRIPTION OR QUALITY OF THE PRODUCT FURNISHED HEREUNDER.

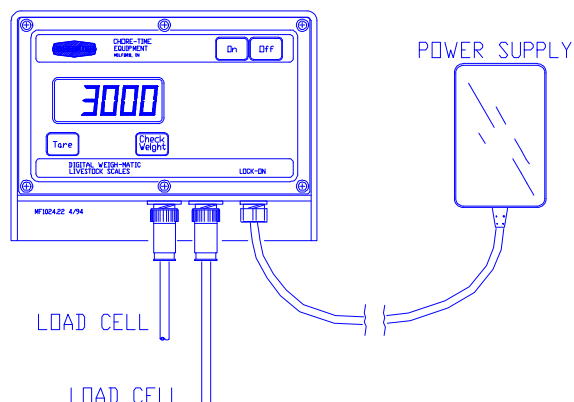
Any exceptions to this warranty must be authorized in writing by an officer of the company. Chore-Time reserves the right to change models and specifications at any time without notice or obligation to improve previous models.

\*See separate "WARRANTY ADDITION" as to these products

CHORE-TIME EQUIPMENT, A Division of CTB, Inc.  
P.O. Box 2000, Milford, Indiana 46542-2000 U.S.A.

## WEIGHT INDICATOR FEATURES

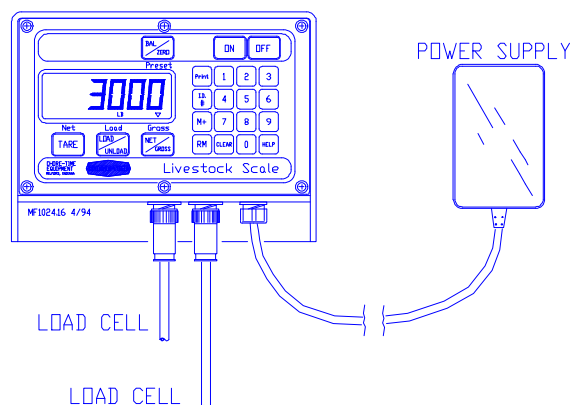
### Model 100 series



The Model 100 Indicators;

- are available in 110V and 220 V versions.
- must be ordered to read/display pounds or kilograms (choose one).
- have a Lock-On feature that locks the Indicator on a restless animals weight to  $\pm 1\%$  of actual weight.
- include a CHECK WEIGHT feature that causes the scales to re-weigh an animal already on the platform.
- may be used with your choice of Load Cells, 2000 lb (907 kg) or 6000 lb (2721 kg) maximum.

### Model 200 series



The Model 200 Indicators;

- are available in 110V and 220 V versions.
- may be field programmed to read/display pounds or kilograms.
- include a ZERO/BALANCE feature that causes the scales to re-weigh an animal already on the platform.
- have a Lock-On feature that locks the Indicator on a restless animals weight to  $\pm 1\%$  of actual weight.
- include M+ (memory plus) and RM (recall memory) keys for totalling the weight of several animals.
- include a PRINT key for sending individual or total weights to a remote printer (not supplied).
- may be used with your choice of Load Cells, 2000 lb (907 kg) or 6000 lb (2721 kg) maximum.

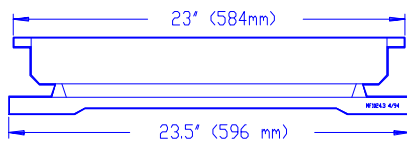
## Complete Scale System Packages

(including indicator, Load Cells, & Power Supply)

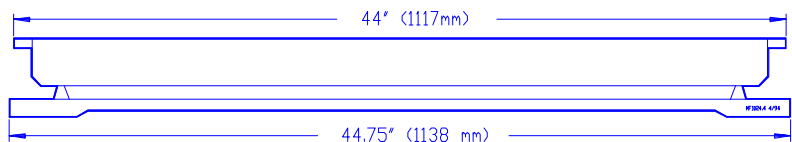
Part Number	Indicator	Max. Scale Weight	Power Supply
34431	Model 110	2,000 lb	110 V.
34432	Model 110	2,000 lb	220 V.
34815	Model 111	907 kg.	110 V.
34816	Model 111	907 kg.	220 V.
34590	Model 210	2,000 lb (907 kg)	110 V.
34591	Model 210	2,000 lb (907 kg)	220 V.
34433	Model 115	6,000 lb	110 V.
34434	Model 115	6,000 lb	220 V.
34820	Model 116	2,721 kg.	110 V.
34821	Model 116	2,721 kg.	220 V.
34592	Model 215	6,000 lb (2721 kg)	110 V.
34593	Model 215	6,000 lb (2721 kg)	220 V.

## Component Identification

### Load Cells

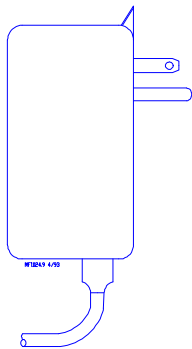


**2000 lb (907 kg)**

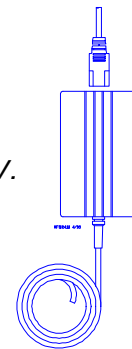


**6000 lb (2721 kg)**

### Power Supply/Converter AC/DC



**110 V.**



**220 V.**

## Scale Specifications

### Load Cell Gross Capacity

2000 lb (907 kg) Max.

6000 lb (2721 kg) Max..

**Accuracy**                      1%  $\pm$ 1 Display Increment

### Load Cell Mounting

2000 lb (907 kg)                      23.5 Inches (596 mm)

6000 lb (2721 kg)                      44.75 Inches (1138 mm)

**Load Cell Cable Length**                      14 Feet (4.26 m)

### Power

**Requirements**                      12-14 VDC @ Approx. 1 Amp

### AC to DC Converter

110 VAC to 13.8 VDC @ 1.2 Amps

220 VAC to 13.8 VDC @ 1.2 Amps

### Indicator Accuracy

#### Model 110 & 115 Indicators

Zero to 300 lb	1 lb Increment
301 to 600 lb	2 lb Increment
over 600 lb	5 lb Increment

#### Model 111 & 116 Indicators

Zero to 136 kg	.5 kg Increment
137 to 272 kg	1 kg Increment
over 272 kg	2 kg Increment

#### Model 210 & 215 Indicators

Zero to 6000 lb	1 lb Increment
Zero to 2721 kg	.5 kg Increment

## Livestock Scale Introduction

The Livestock Scale is designed to individually weigh livestock. Figure 1 shows an overview of a Livestock Scale installation.

The Livestock Scale is available with several options including 2,000 lb (907 kg) and 6,000 lb (2721 kg) Load Cells, Model 100 and Model 200 Indicators, and 115 V and 230 V Power Supply (AC to DC Converter).

The Model 100 Indicators are preset at the factory for pound or kilograms (and are not field programmable). The Model 200 Indicator are preset at the factory for pounds, but may field programmed for kilograms. See page 10.

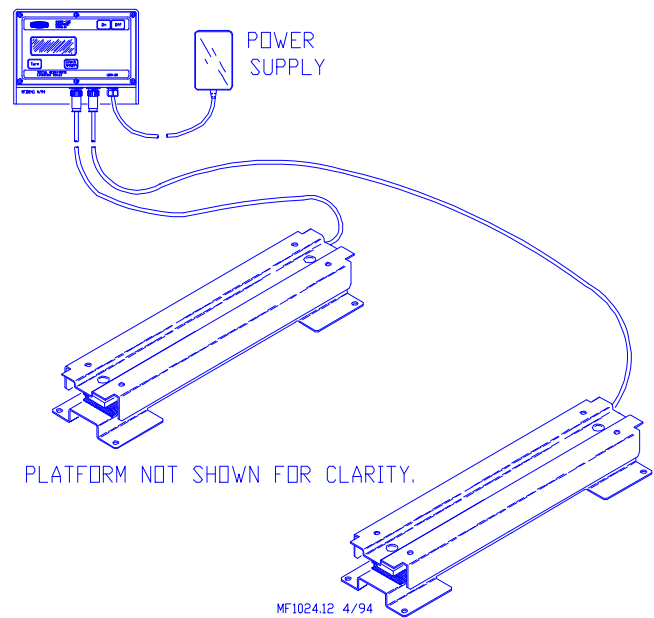
## Livestock Scale Platform Diagram

The scale platform may be constructed out of locally available materials. Treated lumber is recommended.

The following Figures reflect the recommended platform construction. However, plywood or steel grating, for example, may be used if properly supported.

NOTE: If alternate deck sizes and/or materials are to be used, be aware that deck deflection will affect weighing accuracy. The deck should be strong enough that it does not flex.

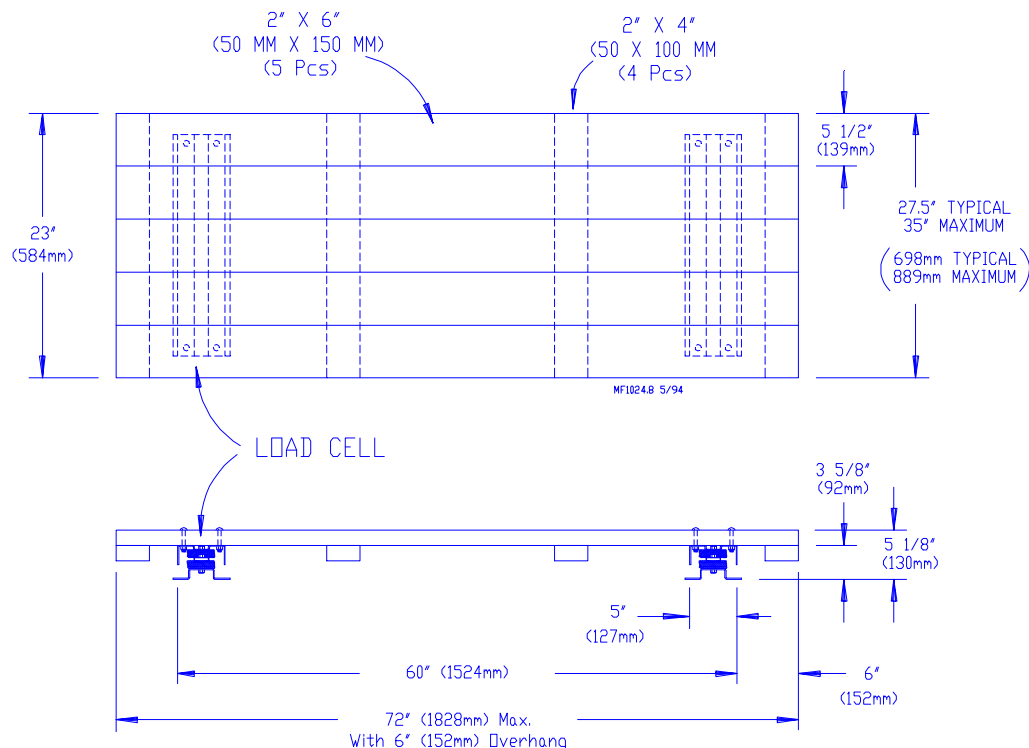
DO NOT WELD ON THE LOAD CELL FRAME WHEN THE LOAD CELL CABLES ARE ATTACHED TO THE INDICATOR. RETURN VOLTAGE FROM WELDER WILL DAMAGE THE INDICATOR, VOIDING THE WARRANTY.



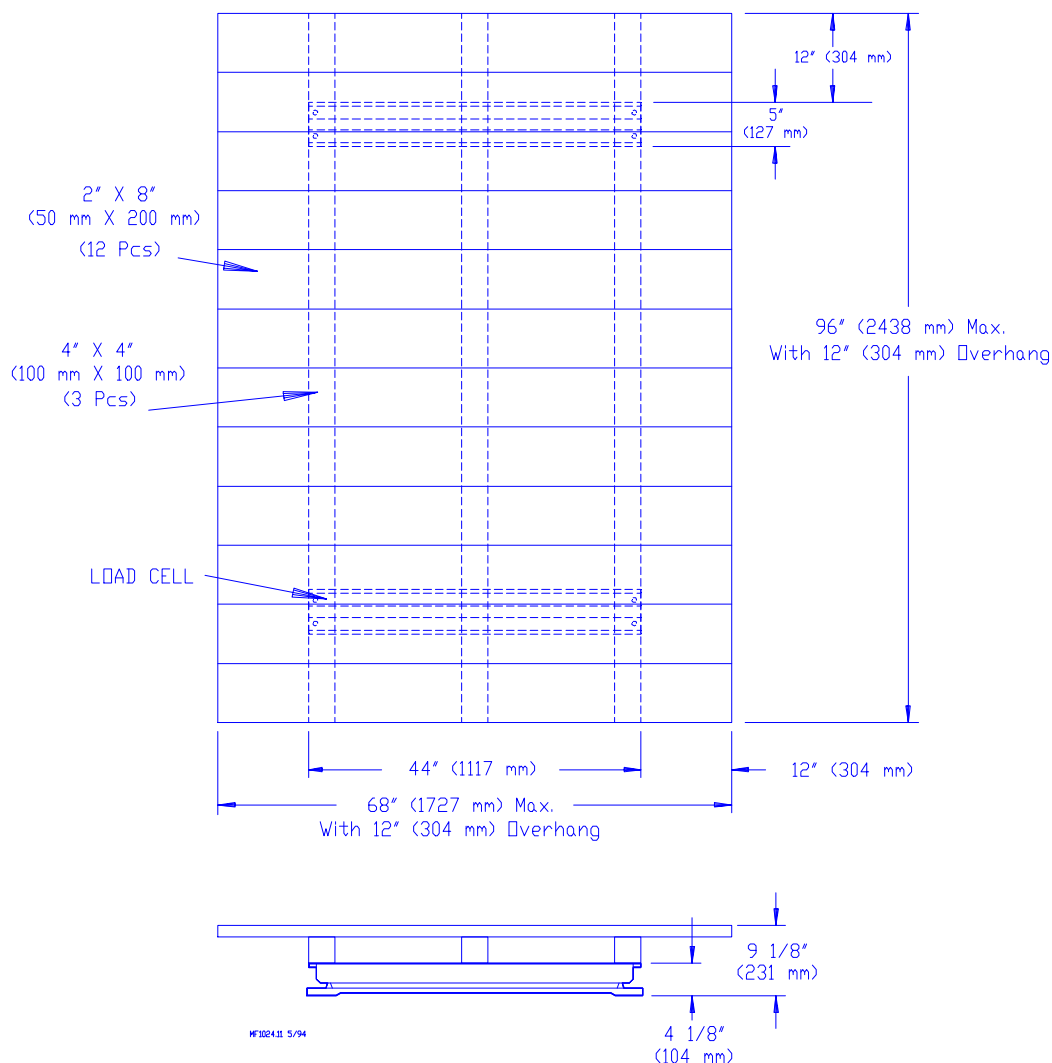
**Figure 1. Livestock Scale System**

Figure 2 shows the recommended deck for the 2,000 lb Livestock Scale. Do not allow the deck to overhang more than 6" (152 mm) past the edge of the load cell.

Figure 3 (page 5) shows the recommended deck for the 6,000 lb Livestock Scale. Do not allow the deck to overhang more than 12" (304 mm) past the edge of the load cell.



**Figure 2. Platform construction diagram for 2,000 lb Scale**



**Figure 3. Platform construction diagram for 6000 lb (2721 kg) Scale**

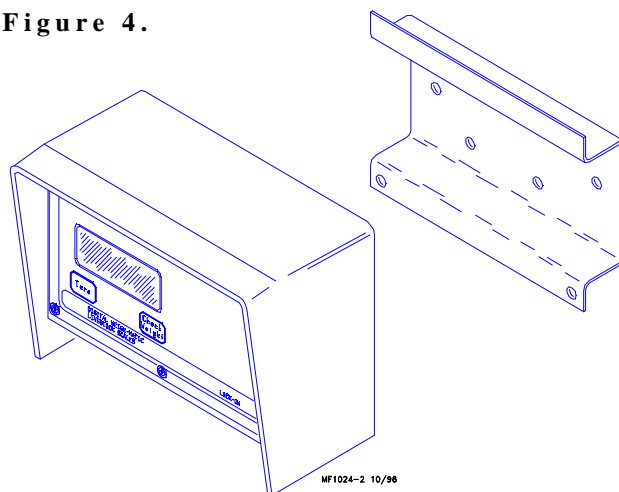
## Mounting the Indicator

The Indicator is shipped with a Mounting Bracket.

Use the hardware supplied to secure the Mounting Bracket to a post or wall near the platform. Locate the Indicator so that it may be conveniently read and adjusted while weighing livestock.

The Indicator box is designed to hang on the top flange of the Mounting Bracket. Use the hardware supplied to secure the Indicator to the Mount Bracket.

**Figure 4.**



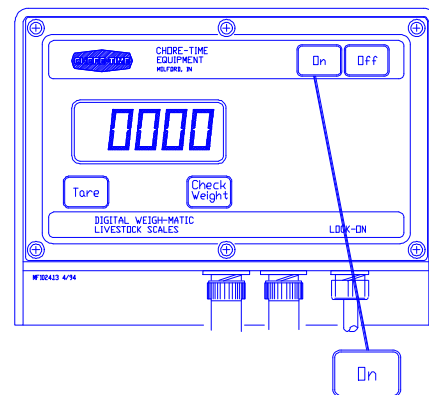
# Operation of the Scale

## - Model 100 -

**POWER ON:** With no load on the platform, press the indicator “ON” key. The indicator will execute a self-test. “0000” will appear on the display when the indicator passes the self-test. See Figure 5. The scale is now ready for use.

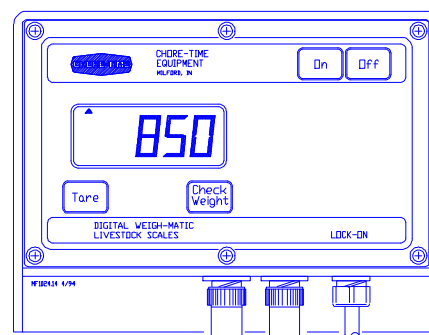
Each time the indicator is turned on, the scale runs a self-test. During the self-test, the scale’s “signature value” is briefly displayed on the indicator. This number should be close to the same value each time the scale is turned on (plus or minus a few pounds). Write this number down for future reference. If a problem is suspected with the scale, an incorrect “signature value” may verify that there is a problem.

Figure 5.



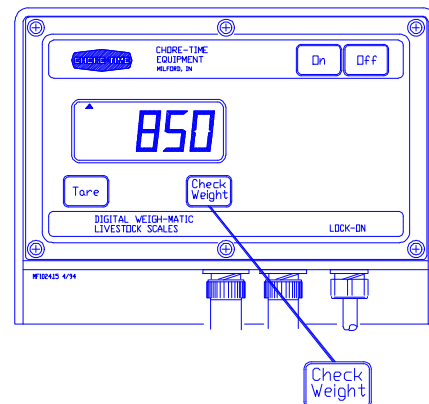
**WEIGH AN ANIMAL:** Put an animal on the platform. **Lock-On Feature:** In a few seconds a triangle will appear in the upper left corner of the display to indicate that the scale has locked onto the animal’s correct weight. See Figure 6. The scale will weigh a restless animal to within  $\pm 1\%$  of its actual weight.

Figure 6.



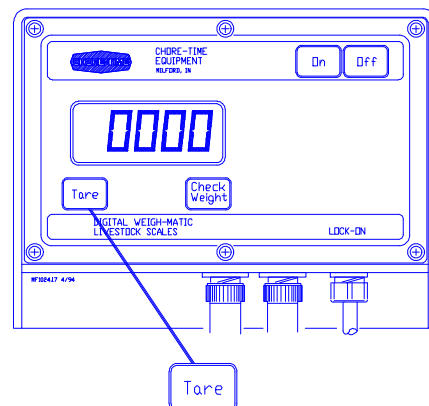
**RE-WEIGH AN ANIMAL:** Press the “CHECK WEIGHT” key. See Figure 7. The scale now re-weighs the animal and locks onto the weight of the animal again.

Figure 7.



**WEIGH ANIMALS WHILE UNLOADING:** With the animal loaded on the platform, push the “TARE” key. See Figure 8. The scale now indicates zero with the animal on the scale. Remove the animal from the platform and the scale shows the weight of that animal.

Figure 8.



**WEIGHING ADDITIONAL ANIMALS:** Once the scale locks onto a weight, the scale will re-activate and start weighing when another animal is added to the platform.

**AUTOMATIC ZERO SET:** When the scale locks onto a weight, it will automatically return to zero when the load is removed.

# Operation of the Scale

## - Model 200 Indicators -

Figure 9.

**POWER ON:** With no load on the platform, press the indicator “ON” key. The indicator will execute a self-test. “0000” will appear on the display when the indicator passes the self-test. See Figure 9. The scale is now ready for use.

Each time the indicator is turned on, the scale runs a self-test. During the self-test, the scale’s “signature value” is briefly displayed on the indicator. This number should be close to the same value each time the scale is turned on (plus or minus a few pounds). Write this number down for future reference. If a problem is suspected with the scale, an incorrect “signature value” may verify that there is a problem.

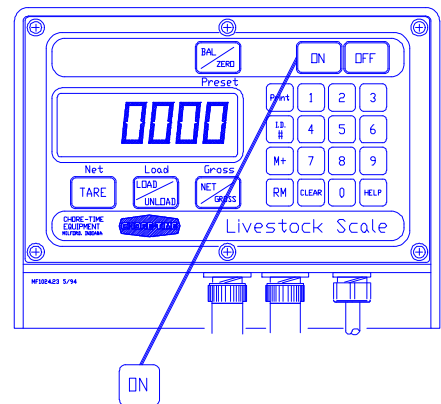


Figure 10.

**WEIGH AN ANIMAL:** Put an animal on the platform. **Lock-On Feature:** In a few seconds a triangle will appear in the upper left corner of the display to indicate that the scale has locked onto the animal’s correct weight. See Figure 10. The scale will weigh a restless animal to within  $\pm 1\%$  of its actual weight.

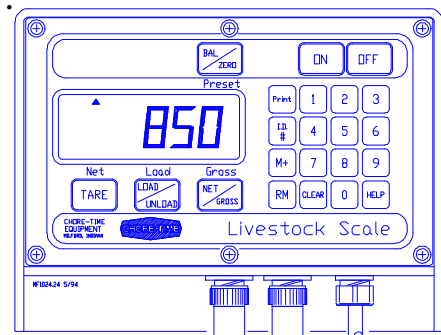


Figure 11.

**RE-WEIGH AN ANIMAL:** Press the “BALANCE/ZERO” key. See Figure 11. The scale now re-weighs the animal and locks onto the weight of the animal again.

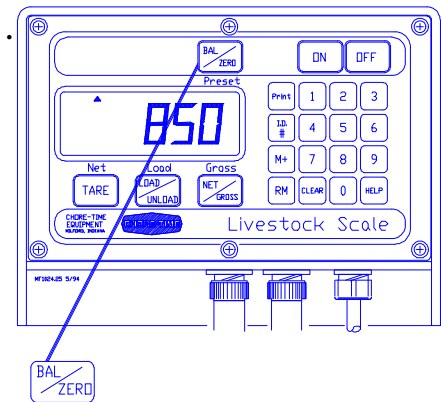
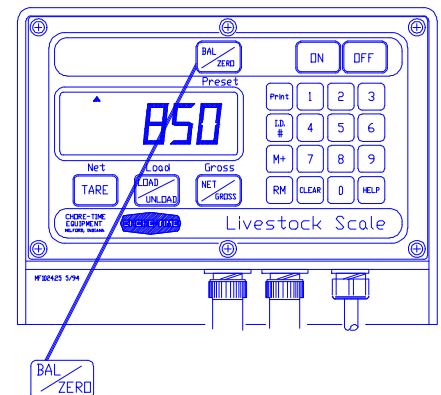


Figure 12.

**WEIGH ANIMALS WHILE UNLOADING:** With the animal loaded on the platform, push the “TARE” key. See Figure 12. The scale now indicates zero with the animal on the scale. Remove the animal from the platform and the scale shows the weight of that animal.

**WEIGHING ADDITIONAL ANIMALS:** Once the scale locks onto a weight, the scale will re-activate and start weighing when another animal is added to the platform.

**AUTOMATIC ZERO SET:** When the scale locks onto a weight, it will automatically return to zero when the load is removed.





## Operation of the Scale (continued)

### - Model 200 Indicators ONLY -

**ADD A WEIGHT TO MEMORY:** The displayed weight may be added to memory by pressing the “M+” (Memory plus) key. See Figure 13. The weight memory will be temporarily displayed.

If a weight was previously stored in memory, the displayed weight is added to the memory.

Figure 13.

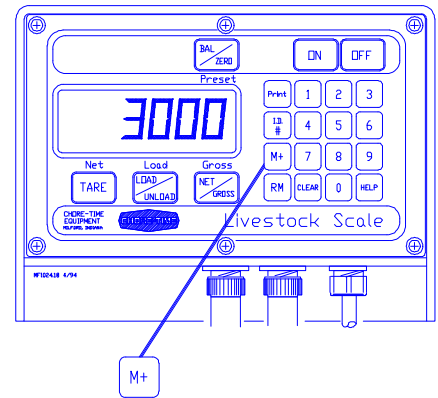


Figure 14.

**RECALL WEIGHT MEMORY:** The value of total weight in memory can be displayed by pressing the “RM” (Recall Memory) key. See Figure 14.

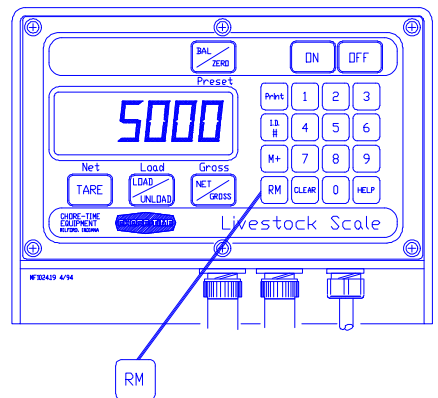


Figure 15.

**PRINT WEIGHT MEMORY:** The value of total weight in memory can be printed by pressing the “RM” key and then the “PRINT” key *while the weight memory is still displayed*. See Figure 15.

Pressing the “PRINT” key causes the unit to return to the normal weighing modes.

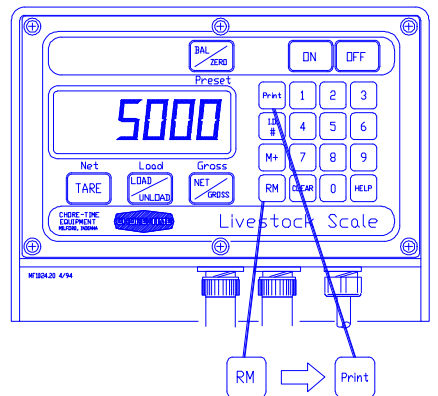
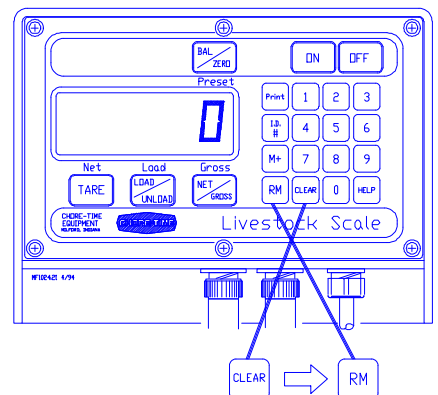


Figure 16.

**CLEAR THE WEIGHT MEMORY:** The weight memory is cleared by pressing the “CLEAR” key followed by pressing the “RM” key. See Figure 16.



# Setup & Calibration

(for pounds or kilograms)

The appropriate Model 100 Indicator must be ordered to read/display in kilograms or pounds.

Model 200 Indicators are shipped to read/display in pounds. The Model 200 Indicator may be programmed in the field to read/display in kilograms.

Carefully follow the instructions below. Improper setup & calibration will result in improper and/or inaccurate scale operation.

Determine maximum allowable weight of Load Cells for your scale. Note the appropriate Set Up and Calibration Numbers from the chart below.

## Changing the Indicator to Read/Display Kilograms

### Setup & Calibration Chart

1. Connect the Indicator to the 12 volt power supply.
2. Press "ON" to activate the Indicator.
3. Press and hold the "BAL/ZERO" key and the "ON" key until "SETUP" is displayed.

Note: Model 200 Indicators are factory set up and calibrated for pounds.

The first number to display will be the Set-Up Number. The flashing digit is ready to be set.

4. Use the NET/GROSS key to advance the number. When the correct number is displayed, press the "TARE" key to advance to the next digit. Repeat this procedure to set all the setup numbers if necessary.
5. Press the "ON" key to move to the calibration numbers.
6. Follow the procedure specified in steps 4 to set the Calibration numbers.

Note (Kilogram systems only): The Indicator automatically sets the correct Calibration Numbers when the correct Set Up Numbers (for Kilograms) are entered.

Load Cell Max. Weight	Set Up No. Lbs.	Cal No. Lbs.	Set Up No. Kilos	Cal No. Kilos
2,000 lb (907 kg)	433002	778	832001	These numbers are set automatically.
6,000 lb (2721 kg)	453006	5325	852003	

7. Press and hold the "TARE" key, then press the "ON" key to exit the Setup/Calibration mode.
8. To check the Setup & Calibration numbers, press the "ON" key.
9. After the setup review has been completed, press the NET/GROSS key then the BAL/ZERO key to zero out the Indicator. The display should show (0).

**The Indicator may be changed to read/display kilograms by simply changing the Set-Up Number. The Calibration Numbers (for kilograms) will be set automatically by the Indicator. Press and hold the "TARE" key, then press the "ON" key to exit the Setup/Calibration mode.**

## Computer Port (RS-232)

### System Specifications:

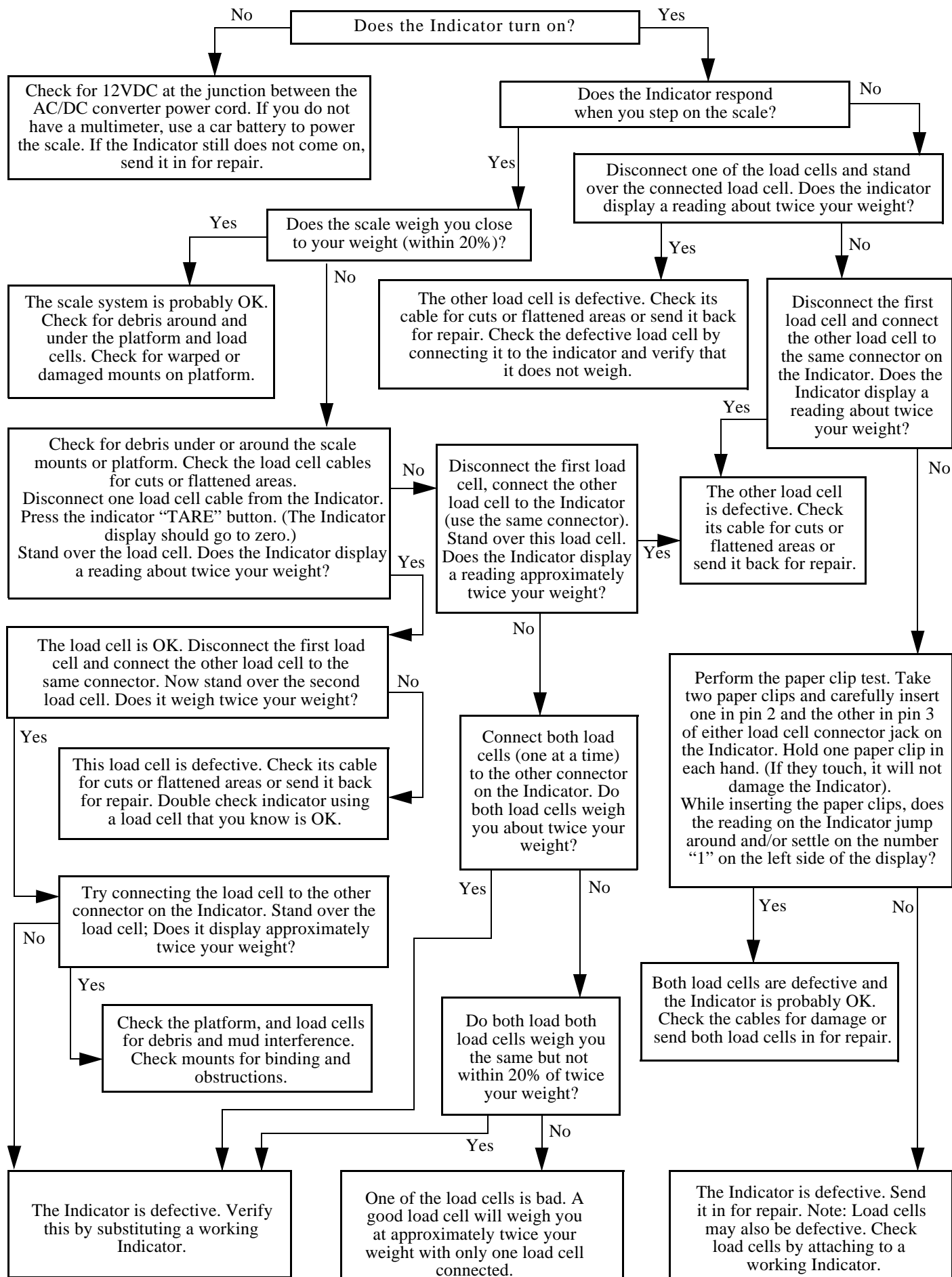
- The Livestock Scale is capable of communicating with a computer or printer using the RS-232 port provided. The signal levels move between +8 and -8 Volts.
- Data is transmitted and received in the ASCII format, which is allowed by most computers and printers.
- Port Configuration: 1200 BAUD, 1 Start Bit, 7 Data Bits, 1 EVEN Parity Bit, 1 Stop Bit. These parameters are not adjustable in the scale. Equipment interfacing to the scale must match this configuration.
- **Refer to your software supplier for additional information on interfacing your Digital WEIGH-MATIC and computer/printer.**

### Port Wire Connections:

- All serial communications use the J904 connector on the bottom panel of the Indicator.

To Printer:	RS-232 out	pin 1
	Printer ground	pin 6
From Computer:	RS-232 in	pin 3
	Computer ground	pin 5
To Score board:	RS-232 out	pin 4
	Score board ground	pin 7

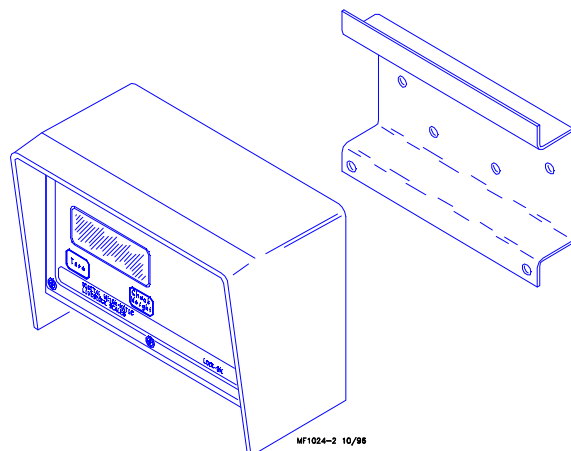
# Troubleshooting Guide



# Parts Lists for the Livestock Scales

## Livestock Scale Indicators

Description	Part No.
Model 110 Indicator (2,000 lb)	34435
Model 111 Indicator (907 kg)	34817
Model 210 Indicator (2,000 lb/907 kg)	34581
Model 115 Indicator (6,000 lb)	34436
Model 116 Indicator (2,721 kg)	34818
Model 215 Indicator (6,000 lb/2721 kg)	34582

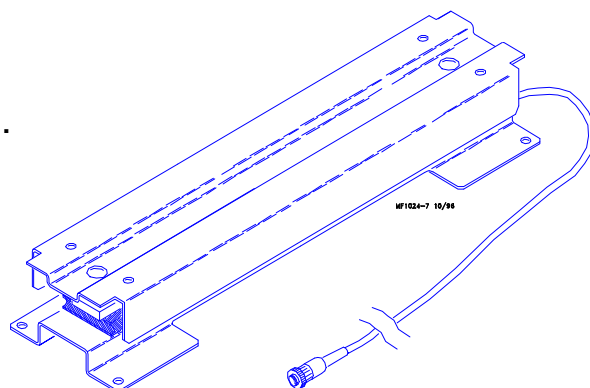


\*Model 100 series shown.

\*Mounting Bracket included w/Indicator.

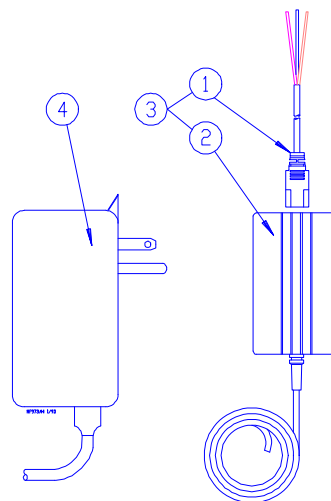
## Load Cells

Description	Part No.
2000 lb (907 kg) Load Cell (2 required)	34437
6000 lb (2721 kg) Load Cell (2 required)	34438



## Power Supply

Item	Description	Part No.
1	Power Cord (220 V)	20682
2	Power Supply (220 V)	20683
3	Power Supply (incl. cord)	30200
4	Power Supply (110 V)	30206



Contact your nearby CHORE-TIME distributor or representative for additional parts or information.  
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 Milford, Indiana 46542-2000

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