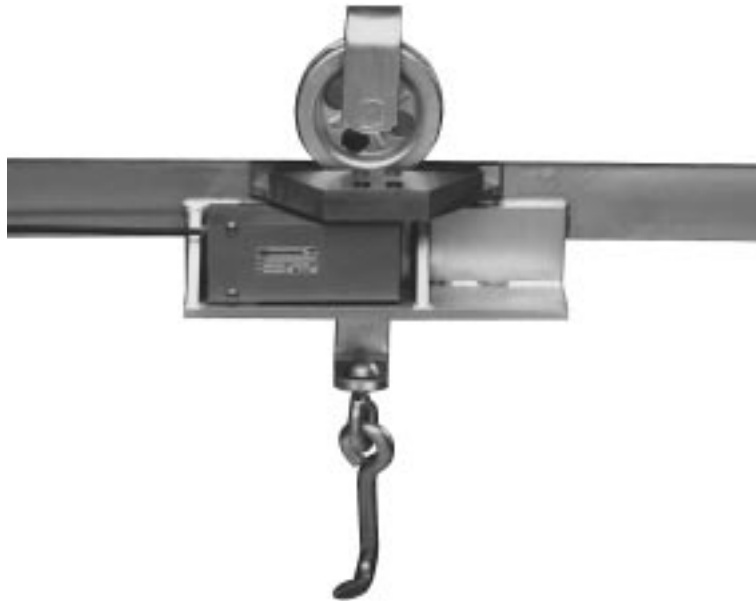


# MS200/202

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*Monorail Scale  
Version 3*

## Installation / Operation Manual



# Contents

- Introduction ..... 1**
- 1.0 Pre-Installation Checks ..... 1**
- 2.0 Portable Installation ..... 1**
- 3.0 Permanent Installation ..... 2**
- 4.0 Replacement Parts ..... 3**
- 5.0 MS200/202 Limited Warranty ..... 4**

## Introduction

The MS200 Monorail Scale is for portable use and is designed to bolt onto a straight section of either  $\frac{3}{8}$ " x  $2\frac{1}{2}$ " or  $\frac{1}{2}$ " x  $2\frac{1}{2}$ " rail. The overall length of straight rail required for the scale and ramps is 41". The scale body requires a 22" space between existing support hangers.

The MS202 Monorail Scale is for permanent use and comes with 52" of either  $\frac{3}{8}$ " or  $\frac{1}{2}$ " rail. To install, remove a straight section of rail, then cut the MS202 rail to replace the section removed. **Note:** You can remove a section as short as 14". Because the usual hanger spacing of many existing mechanical scales is 48", most often installers remove a 48" section of rail, and cut 48" of the MS202 rail to fit between the existing hangers. We recommend placing a new hanger near the scale to reduce flexing and twisting within the 48" span.

On both models, the live section of scale is 8" long with a slight concave dip so a trolley wheel will settle into the dip. Only one trolley at a time will fit on the 8" live portion of the scale.

## 1.0 Pre-Installation Checks

Before installing the portable monorail scale, check the trolleys used in the plant to ensure there is adequate clearance between the top of the swivel hook and the bottom of the scale. See Figure 1. Check with the plant operator to make sure all trolleys in use meet these requirements.

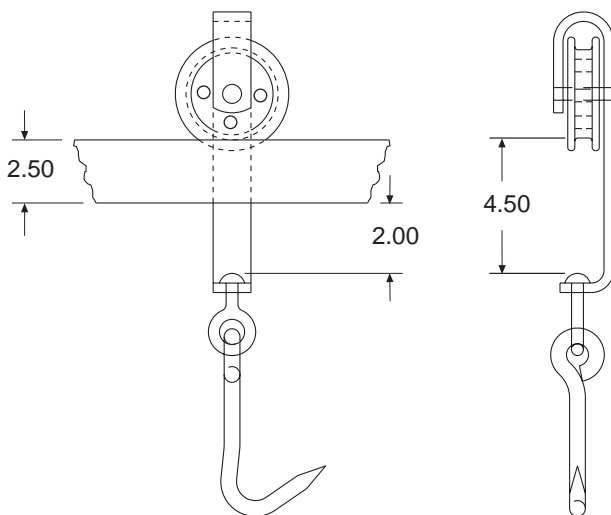


Figure 1: Minimum Clearances for Trolleys

## 2.0 Portable Installation

1. Select a location for installation with at least 41" of straight rail section. Avoid locating the approach ends of the scale close to bends or corners of the rail system. If the rail hangers have less than 22" of space between them, move one of the hangers to achieve the 41" clearance.

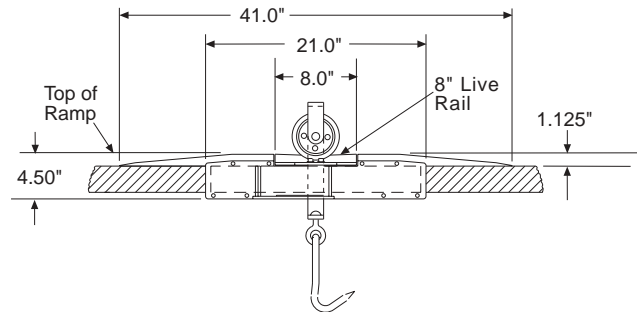


Figure 2: Portable Scale Dimensions

2. To begin installation, loosen, but do not remove, the four top bolts (Figure 3, A, top of next page) of the scale bracket. Remove the four lower bolts (Figure 3, B, top of next page) of the scale bracket. Slide the scale unit over the rail with the load cell bracket toward the rail-hanger side of the rail. At this point, move the scale left or right along the rail to the desired location.
3. The installation kit provides two  $\frac{1}{16}$ " shims,  $2\frac{1}{2}$ " x 20" long for use with portable monorail scales on rails that are  $\frac{3}{8}$ " thick. If the rail you are using is  $\frac{3}{8}$ ", place one shim on each side of the rail. If using a rail which is  $\frac{1}{2}$ " thick, you do not need the shims and may discard them.
4. Replace the four lower bolts when scale is in the desired position. Before tightening all eight bolts, be sure the scale body is contacting the rail evenly along the entire length of the scale.
5. After tightening the bolts, check the alignment of the ends of the approach ramps with the rail. If the rail is not straight and true, correct the alignment by loosening the bolts and inserting pieces of shim stock between the rail and the bracket. Do this on a "cut-and-try" basis until the alignment looks smooth. When satisfied, tighten all eight bolts.

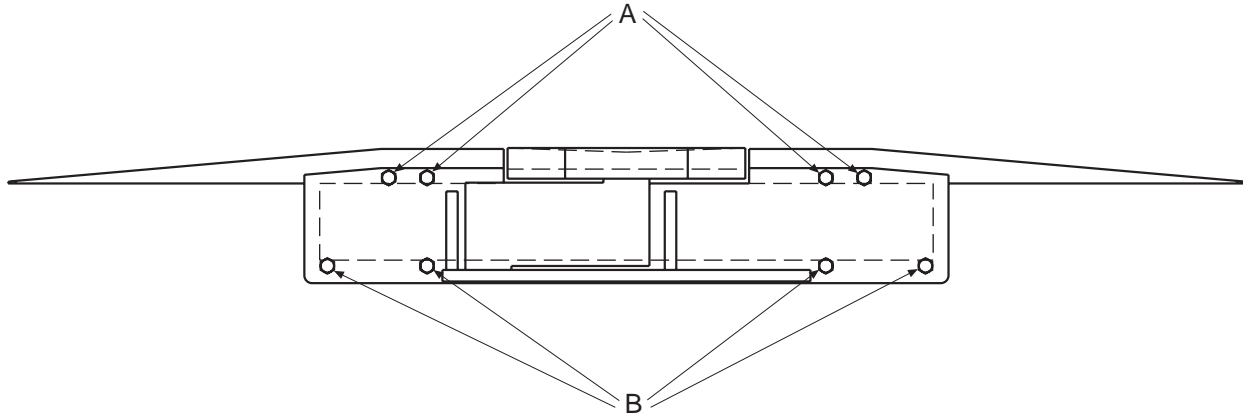


Figure 3: Top & Lower Bolts of Scale Mounting Brackets

### 3.0 Permanent Installation

6. Route the 25' load cell cable to the desired location for the digital weight indicator. **Do not cut the cable**, as the load cell is temperature-compensated for exactly 25' of cable. It is recommended that the cable be attached to the rail assembly to prevent the possibility of damage. See Figure 4.

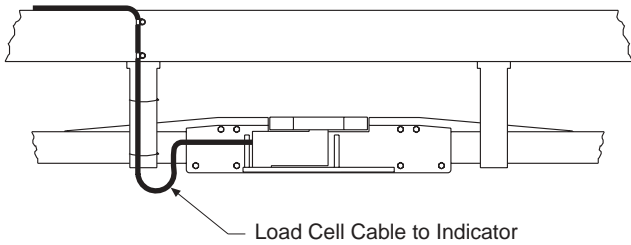


Figure 4: Suggested Load Cell Cable Attachment

7. Rail hangers and their beam supports usually provide a good place for attaching cable ties and cable clamps. When attaching cable clamps, be careful not to pierce the load cell cable.
8. Attach load cell cable to indicator.

1. Check that all trolleys using the scale have adequate clearance to fit on the scale. See Figure 1 for minimum clearance size.
2. Remove an existing section of straight rail, then cut the MS202 rail to fit the removed section. Note: You can remove as little as 14" or, as much as 52". To prevent having to weld in the new rail section, choose a section supported with hangers on each end. Bolt the new section to the inner bolt holes of each hanger, as the joint will lie at the hanger center lines. If the removed rail section spans more than 24" between hangers, install a new hanger close to the scale to prevent rail twist when the installation is complete.

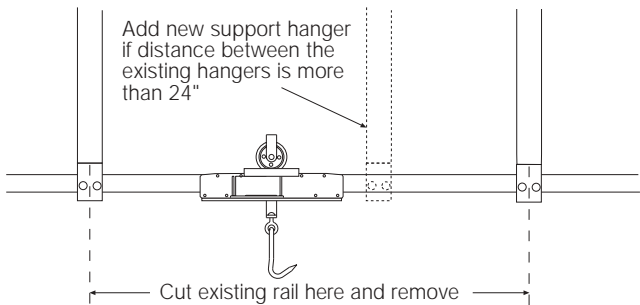


Figure 6: MS202 Rail Installation

3. Select a convenient location for mounting the indicator tilt stand within the 25' allowed by the load cell cable. If your location requires a location further than 25', consult an authorized Rice Lake Weighing Systems scale technician.
4. Before cutting and removing the planned section of rail, be certain that the MS202 rail section is the correct width ( $\frac{3}{8}$ " or  $\frac{1}{2}$ "). Remove the rail section, and cut the MS202 rail to the size of the section removed.
5. Temporarily position the MS202 section in place to match the alignment of the existing rail. Mark the MS202 rail for drilling bolt holes matching the inner holes of the rail hangers. Remove the MS202 rail and drill a hole in each rail end for the hanger bolts.
6. Bolt the MS202 rail section and scale to the supporting hangers, shimming where necessary to achieve good track alignment.
7. After properly routing and securing the load cell cable and positioning the indicator, connect the load cell cable to the indicator.
8. After you have made all cable connections, plug the power cord into a 110V grounded outlet. After power-up and lamp test, the display is ready for weighing.

If your state requires a "place in service" report for new equipment, a Rice Lake Weighing Systems certified scale service company should be contacted for assistance.

Both the MS200 and the MS202 are USDA approved for use in federally inspected meat processing plants. In addition, both models are NTEP type certified when used with any NTEP-certified weight indicator.



## 4.0 Replacement Parts

The table below lists the replacement parts for this monorail scale.

RLWS Part #	Description
19971	Side Rail Clamp
58AO13-1	Scale Body
58AO13-3	Live Rail
19997	Monorail Shim
17514	Load Cell, 60048-1K-SS (NTEP)

## 5.0 MS200/202 Limited Warranty

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Rice Lake Weighing Systems (RLWS) warrants that all RLWS equipment and systems properly installed by a Distributor or Original Equipment Manufacturer (OEM) will operate per written specifications as confirmed by the Distributor/OEM and accepted by RLWS. All systems and components are warranted against defects in materials and workmanship for one year.

RLWS warrants that the equipment sold hereunder will conform to the current written specifications authorized by RLWS. RLWS warrants the equipment against faulty workmanship and defective materials. If any equipment fails to conform to these warranties, RLWS will, at its option, repair or replace such goods returned within the warranty period subject to the following conditions:

- Upon discovery by Buyer of such nonconformity, RLWS will be given prompt written notice with a detailed explanation of the alleged deficiencies.
- Individual electronic components returned to RLWS for warranty purposes must be packaged to prevent electrostatic discharge (ESD) damage in shipment. Packaging requirements are listed in a publication, "Protecting Your Components From Static Damage in Shipment," available from RLWS Equipment Return Department.
- Examination of such equipment by RLWS confirms that the nonconformity actually exists, and was not caused by accident, misuse, neglect, alteration, improper installation, improper repair or improper testing; RLWS shall be the sole judge of all alleged non-conformities.
- Such equipment has not been modified, altered, or changed by any person other than RLWS or its duly authorized repair agents.
- RLWS will have a reasonable time to repair or replace the defective equipment. Buyer is responsible for shipping charges both ways.
- In no event will RLWS be responsible for travel time or on-location repairs, including assembly or disassembly of equipment, nor will RLWS be liable for the cost of any repairs made by others.

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**SHOULD THE SELLER BE OTHER THAN RLWS, THE BUYER AGREES TO LOOK ONLY TO THE SELLER FOR WARRANTY CLAIMS.**

No terms, conditions, understanding, or agreements purporting to modify the terms of this warranty shall have any legal effect unless made in writing and signed by a corporate officer of RLWS and the Buyer.

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