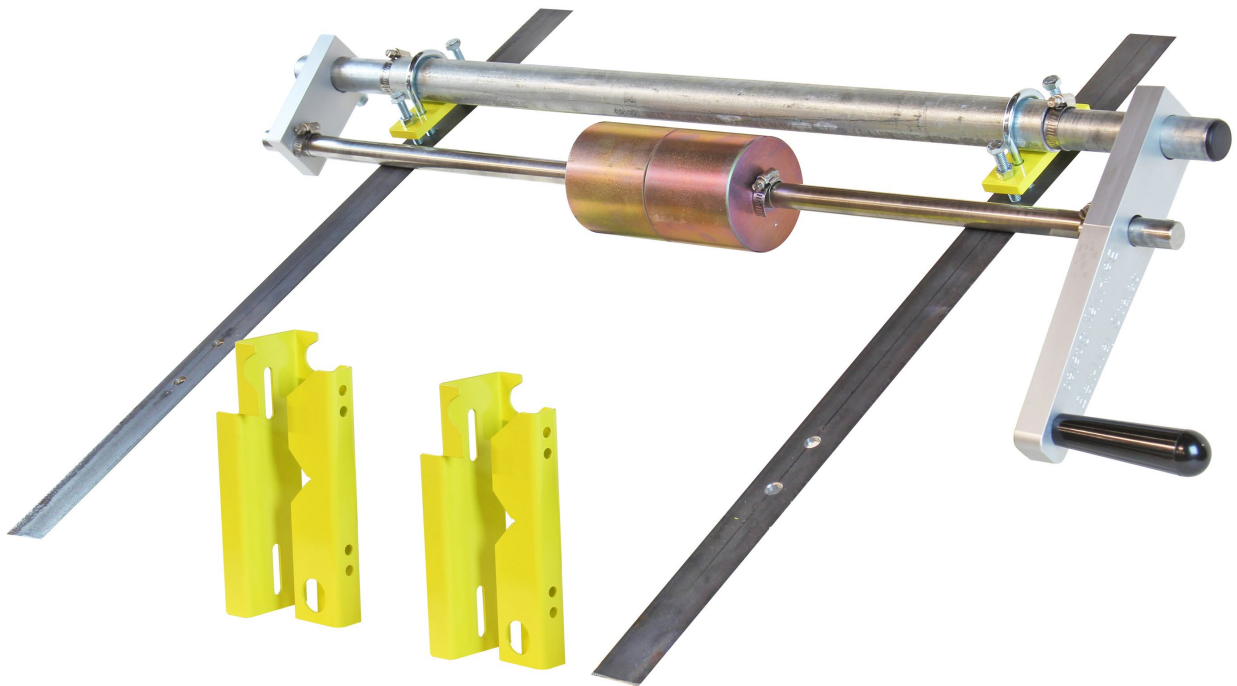




# ***Belt-Way Scales***

*In Motion Weighing Solutions*



## **Self-Storing Test Weight Kit Instructions**



# Self-Storing Test Weight Kit Instructions

## Introduction

The Belt-Way Self-Storing Test Weight Kit is designed to make calibration safe and easy. It is permanently installed on the conveyor eliminating the need to carry hand weights up to the scale. It can be activated from one side of the conveyor, so it is perfect for hard-to-reach scales. The test weight kit specifications depend on the capacity of the scale and conveyor width.

## Kit Contents

- Parts Kit
  - 1 Pivot Arm
  - 1 Pivot Block
  - 2 Cradle Covers
  - 2 Pipe Plugs
  - 6 Small Hose Clamps
  - 2 Large Hose Clamps
  - Anti-Seize Grease
  - Hardware Pack

- Test Weights

Scale Load Cell	Test Weight Kit	Number of Weights
45 KG	BW45TWKIT	2
100 KG	BW100TWKIT	3
200 KG	BW200TWKIT	4
350 KG	BW350TWKIT	5

- Pivot Pipe and Test Weight Bar

Scale Pipe Length	Test Weight Kit Length
48"	54"
60"	66"
72"	78"

## Tools Required

- 9/16 Wrench
- Blade Screwdriver
- Mallet
- Tape Measure

# Self-Storing Test Weight Kit Instructions, Cont.

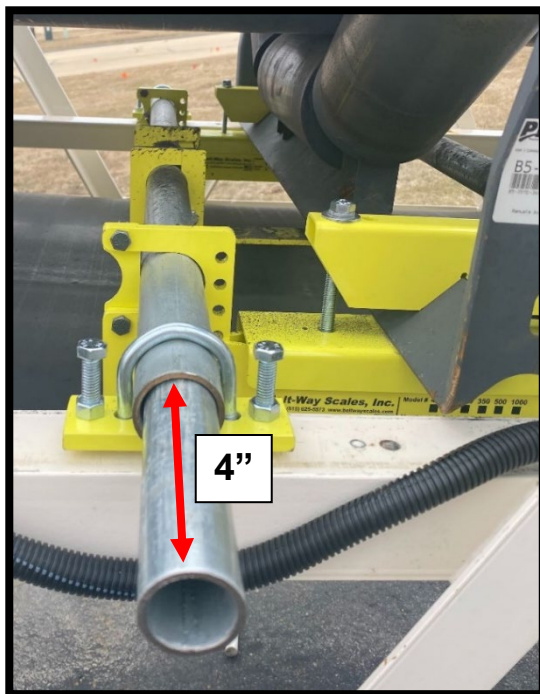
## Installation

**NOTE:** Before beginning check that the Pivot Pipe and Test Weight Bar are 6" longer than the scale mounting pipe.

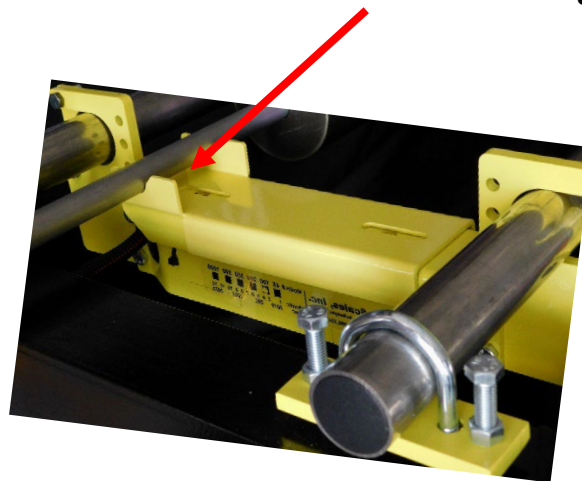
1. Insert the test weight pipe into the scale mounting pipe, extending it approximately 4" toward the catwalk side of the conveyor.
2. Remove the V-Blocks and idler from the load cell assemblies and install the Cradle Cover on top of the existing load cell cover.
3. Replace the idler and V-Block. Do not fully tighten the V-Block bolts until the end of the installation process.



**IMPORTANT!** The cover increases the height of the idler. If you are installing the test weight kit on an existing scale, you must string line the idlers again to make sure the scale idler is level with the other weighbridge idlers. Adjust the leveling plates as needed.



**Cradle Cover**  
Position cover to cradle the test weight bar.



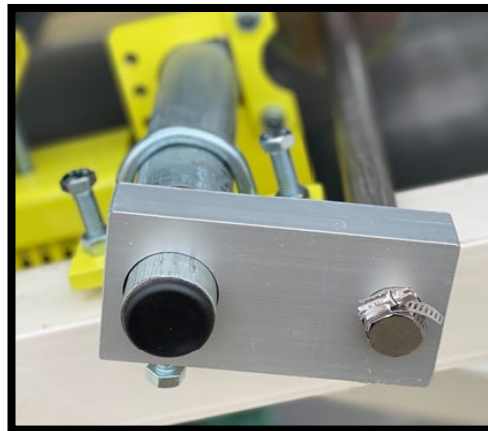
# Self-Storing Test Weight Kit Instructions, Cont.

## Installation, Cont.

4. Install a 7/8" test weight bar with test weights, using hose clamps on the bar to secure the weights in place.
5. Attach the Handle to the Pivot Arm.
6. Install the Pivot Arm / Handle assembly onto the Pivot Pipe and Test Weight Bar.
7. Secure the Pivot Arm to the Pivot Pipe with one 3/8" bolt and to the Test Weight Bar with one small hose clamp.



8. Install the Pivot Block on the other end of the Pivot Pipe and Test Weight Bar.
9. Secure the Pivot Block to the Pivot Pipe with one 3/8" bolt and to the Test Weight Bar with one small hose clamp.
10. Install a Pipe Plug on each end of the Pivot Pipe.



**IMPORTANT!** Apply anti-seize grease to the space between the larger scale pipe and the smaller weight pipe. Move the pipe back and forth a few times to force the grease farther inside the pipe. Reapply grease as needed to keep the pipe joints lubricated.

# Self-Storing Test Weight Kit Instructions, Cont.

## Installation, Cont.

11. Make final adjustments:

- A. Ensure the Test Weight Bar sits in the Cradle Cover on the load cell assembly in the calibration position.
- B. Ensure the Pivot Arm / Handle assembly lifts the Test Weight Bar and allows it to rotate freely from the stored position to the calibrate position.

## Stored Position



## Calibrate Position



**IMPORTANT!** If the conveyor is portable, drill 4 holes and use the included hardware (U-bolts, nuts, washers) to hold the weight bar to the frame in the stored position when moving.

**THE WEIGHT BAR MUST BE SECURED BEFORE TRANSPORTING THE CONVEYOR!**

# Self-Storing Test Weight Kit Instructions, Cont.

## Calibration

### Weights

- Test Weights – 13.00 lb. each
- Test Weight Bar – 0.171 lb. / inch
- Pivot Arm & Block – 2.00 lb.

### Calculate Calibration Weight

(Number of weights x 13.0) + (length of bar x 0.171) + 2 = Total Calibration Weight

**Example:** Model 100 with 3 weights and 54" weight bar.

$(3 \times 13.0) + (54 \times 0.171) + 2 = 50.234 \text{ lb.}$

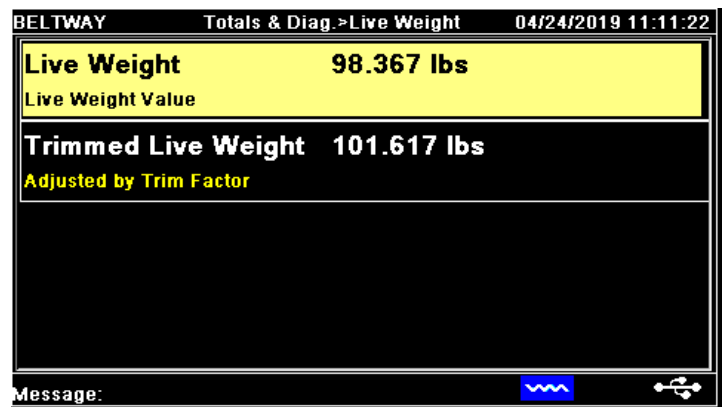
## Calibrate



**IMPORTANT!** Confirm the scale is displaying the correct weight before calibrating.

1. Move the weights to the calibration position.
2. Navigate to **Main Menu >Totals & Diag > Live Weight**

**NOTE:** The Live Weight should be close to the calculated calibration weight. If it is not, then check to make sure the weights are resting completely on the load cell covers. Make sure there is no material buildup interfering with the weight bar. If the Live Weight looks correct, then proceed with the calibration.



3. Navigate to **Main Menu >Calibration > Test Weight Calibration.**
4. Follow the instructions on the screen or refer to the Conveyor Belt Scale Manual.

**NOTE:** You can also perform a quick scale verification by putting the weights in the calibration position and running the belt empty. Calculate expected tons per hour with the following formula.

$((\text{Test Weight Amount} / \text{Idler Distance}) * \text{Belt Speed} * 60) / 2000 = \text{Tons Per Hour}$

**Example:**  $((50.234 \text{ lbs} / 4 \text{ ft.}) * 400 \text{ feet per minute} * 60) / 2000 = 151 \text{ TPH}$

## **Belt-Way Scales**

*A Division of Cardinal Scale Mfg. Co.  
102 E. Daugherty, Webb City, MO 64870  
USA Ph: 800-441-4237  
[www.beltwayscales.com](http://www.beltwayscales.com)*