

METTLER TOLEDO

Installation Instructions

BC-150 or PS90 Scale
Conveyor Scale Drop-In Kit

Model: BC-150 or PS90 Scale
Kit Number: 64058112
Description: Conveyor Scale Drop-In Kit

Document Number: 64058111
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Introduction

This kit allows a BC-150 or PS90 scale to be integrated into a standard gravity conveyor. The kit is designed for standard conveyors that use 1.9" diameter rollers on a frame that supports 1.5" spacing increments. The kit can be used with conveyors between 22" and 32" in width. The scale can be mounted lengthwise or transverse in the conveyor frame.



WARNING! DO NOT ATTEMPT TO INSTALL THIS KIT IN A POWERED CONVEYOR.

This kit supports both the ball-top and roller-top platter options for the BC-150 or PS90 scale. The ball-top platter allows packages to be rotated easily when on the scale. This option is commonly used when packages have labels that must be scanned at the shipping station. The roller-top platter is commonly used when packages are significantly larger than the scale. The BC-150 or PS90 should always be mounted lengthwise when used with the roller-top platter.



Length-wise Mounting, Roller-Top Platter



Transverse Mounting, Ball-Top Platter

Parts List

Included in this kit are:

- Two adjustable hanger assemblies
- Eight M10x20 screws, lock washers and nuts
- Four tall scale legs (for use with ball top platters)

Tools Required

The following tools are required to perform this installation procedure:

- One flat head screwdriver
- Two M17 wrenches or one wrench and one socket
- A tape measure
- A bubble level 24" or longer
- Gloves are recommended



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Preparation for Assembly

The scale must be mounted level and adequately elevated above the rollers so that the longest package will not rest on the conveyor on either side of the scale. Use particular care with gravity conveyors that are sloped slightly so that packages roll down the conveyor without assistance. The in-feed conveyor will be higher and interfere with longer packages. It is recommended that the in-feed side of the conveyor adjacent to the scale be level, or have a slope of no more than a 1 inch drop per 10 feet of conveyor.

- Identify a position in the conveyor to install the scale. If possible, the scale should be mounted no more than two feet from the legs that support the conveyor.
- For 10 foot conveyor sections, an extra set of legs should be installed so that the scale has support immediately on either side.
- When used with the CNS810 static dimensioner, make sure there is adequate space above and below the conveyor for the dimensioner and its stand.
- There should be no cross bars within the envelope of the scale.



Lengthwise Mounting(BC-150 shown)



Transverse Mounting (PS90 shown)

For **lengthwise** mounting of the scale (shown at left in the figure above) with roller-top or ball-top platters:

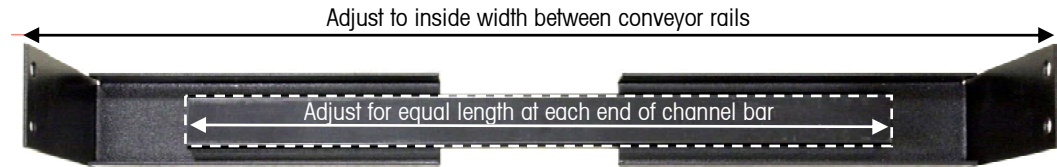
1. Remove the rollers in a 24" section of the conveyor.
2. Mark a hole at least 3" from the roller on the in-feed side.
3. Mark the hole that is 19.5" away from this hole. The two marked holes will be the outer mounting holes of the two hangers.

When the BC-150 or PS90 scale is used with a ball-top platter, the scale may be mounted **transverse** (width-wise) in the conveyor (at right in the figure above). For this orientation:

1. Remove rollers in a 20" section of the conveyor.
2. Mark a hole at least 3" from the roller on the in-feed side.
3. Mark the hole that is 16.5" down the conveyor from this hole. The two marked holes will be the outer mounting holes of the two hangers.

Hanger Installation

1. Place the adjustable hangers on a flat surface. If necessary, loosen the screws on the bottom of the hangers, and pull the sides apart until the bracket width is the same as the conveyor rail inside spacing. Adjust the center channel so that it is an equal distance from each end bracket.



Hanger Adjustment

2. Finger tighten the screws on the bottom of each hanger, but do not tighten them completely at this time.



Hanger Assembly Screws

3. Position each of the hangers into the conveyor opening with the outside hole of the hanger aligned with the mark previously placed on the conveyor rail.
4. Secure with (4) M10x20 screws, inserting the screws from the inside of the conveyor rails and installing the lock washer and nut from outside the rails, as seen in the photograph below. Make sure the hangers are vertical, and tighten the screws.



Hanger Mounted to Conveyor Rail

5. Verify that the channel bar is still centered between the hangers, and then tighten the four screws on the bottom of each of the hangers.

Scale Installation

1. Remove the platter from the BC-150 or PS90 scale.
2. If the ball-top platter is being used, the supplied set of four longer feet must be installed. Turn the scale frame upside down, remove the feet and install the new legs. (The photograph below shows one of the standard, shorter, feet installed.) Turn the scale over so that it is resting on its feet.



PS90 Shown

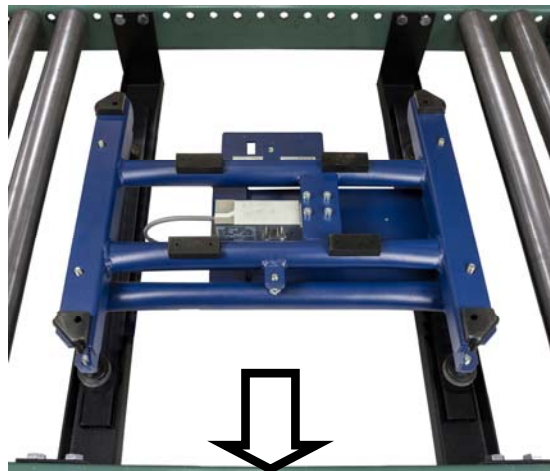
Scale Foot with Jam Nut



Scale Foot Resting on Hanger

3. Place the scale on the hangers in the conveyor. Normally the scale is centered between the rails. For wider conveyors, it is acceptable to position the scale off center, closer to the operator (indicated by the arrow in the photograph below). Push the scale toward the out-feed conveyor until the feet rest against the side of the hanger.

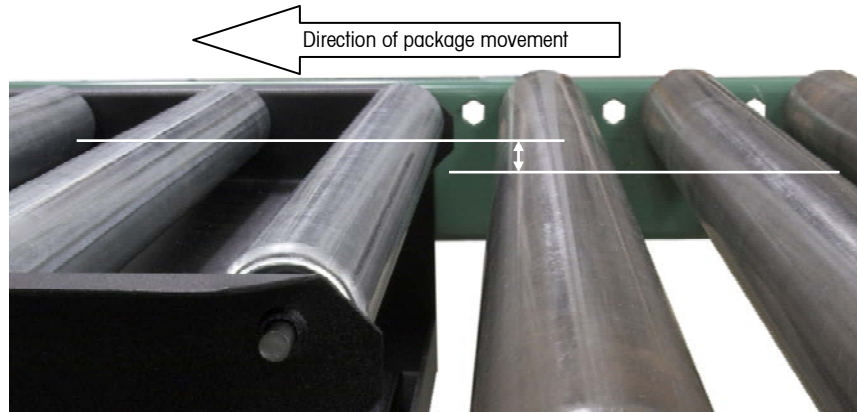
BC-150 Shown



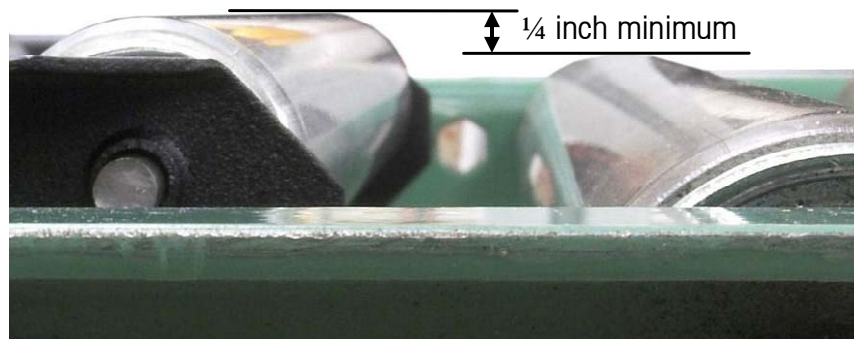
Scale Resting on Hangers, Direction of Lateral Adjustment Indicated

4. Place the platter on the scale and press down firmly on all four corners.

5. For the ball top platter, it will be necessary to place a piece of flat material on top of the scale to make the leveling adjustments. First, adjust the feet on the lead-in side of the scale so that the top is at least $\frac{1}{4}$ inch above the lead-in rollers – the dimension indicated in the figures below.



Lead-In Side Height Relative to Conveyor



Lead-In Side Height Relative to Conveyor, Side View

6. With the bubble level on top of the platter, adjust the feet on the downstream side of the scale until the scale is level.
7. Place the longest package to be measured on the scale and verify the package does not touch the conveyor. It may be necessary to adjust the scale height or reduce the slope of the conveyor. A typical lead-in slope would be 1 inch per 10 feet of conveyor.
8. When the adjustments are complete, verify the scale is stable by pressing down on all four corners, then lock the jam nuts on the feet.