Instruction
Manual

Hopper Scale
Weigh-A-Round
Scales

3/13/23
V2023.3

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Safety First

- **Please call a B-TEK-authorized service provider for service or repairs.**

- Ensure that the area used for this equipment is safe for this equipment.
- Allow only qualified personnel to work on electric/electronic components.
- Do not use this equipment for anything other than its intended use.
- Ensure equipment is plugged into stable power sources.
- Keep equipment away from high voltage, vibration, and high draft areas.
- Keep equipment cords and cables secured and protected.
- Perform periodic inspections to keep equipment in good working order.
- Never apply a load over the capacity of your scale.
- Keep the area around your scale free of debris.
- Ensure that weighments are performed on a level surface and within the black indicator on the bubble level to maintain NTEP standards.

NTEP Notes

- **Device must be used on a level surface and within the bubble level parameters to be used as a legal for trade device.**
- **The NTEP-approved capacity and division size should be marked on the NTEP-approved indicator used with the device.**

Introduction

The information provided in this manual is a guide to setting up the B-TEK, Inc. the NTEP-approved Weigh-A-Round (WAR) and Portable Hopper Scale. This document is intended as a guide only, and the actual installation and use should be performed by qualified personnel only.

All sales of goods are subject to the standard warranty and the standard terms and conditions published by B-TEK, Inc.

Should you have any questions regarding the Industrial series single-point bench scale, contact your local B-TEK, Inc. scale representative.

- WAR is available in 18” X 24” to 24” X 30” sizes.
- Portable hopper size 31.5” X 37.75”
- WAR is available in 250, 500, and 1000 capacities.
- Portable Hopper Scale is available in 1000lb capacity.
- Structure available in carbon and stainless steel.
- Single point aluminum brick IP67 load cell or optional stainless steel IP69 load cell.

Portable Hopper Scale Shown Above

Weigh-A-Round WAR Shown Above

Installation/Use Overview

Prior to the use of the scale, it is important to have a clear understanding of the scale including its limits and use.

No physical or electrical changes/alterations may be made to the scale during installation or use, which may void the warranty. This includes the removal, addition, or modification of any steel or components, as well as electrical or program-related items.

Prior to installation, it is the customer's responsibility to verify that the equipment meets the requirements of the application. Do not begin installation if this is unknown. It is the customer's responsibility to ensure that the scale equipment is operated within the manufacturer's specifications.

Any repairs must be performed by B-TEK Scales authorized service technicians. Failure to comply with this policy voids all implied and/or written warranties.

Installation Site Preparation

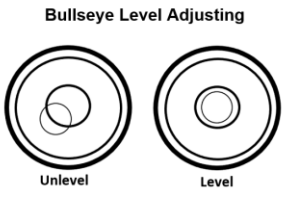
To ensure that the scale platform will not be loaded over its intended capacity, take care that the site of use will not allow unintended loads from being placed on the scale. Make sure that the scale location is not in a location where items heavier than the scale's capacity may accidentally be placed on the scale or in the vicinity of falling objects.

If the scale has not been designed for a washdown application, do not allow the scale to be placed in any area where water may exist.

Take care that the cable between the scale and the weight indicator is protected from being run over, cut, crushed, or susceptible to moisture.

The floor where the scale is being used should be a surface acceptable in allowing the scale to be maneuvered safely without causing injury or damage. Be mindful of slopes and ramps.

If the scale is equipped with a bubble level and is NTEP-approved the scale should only be used in areas that show the bubble within or touching the black circle as shown in the images below.



Unpacking

Caution: The scale platform is heavy and can be awkward to handle. Exercise extreme care when lifting the scale platform to avoid personal bodily harm or damage to the equipment.

Remove the packing material and inspect the scale for any visible damage that may have occurred during shipment.

The **Weigh-A-Round Portable Scale** and the **Portable Hopper Scale** will be shipped fully assembled, typically on a skid. The overload stops will have already been adjusted at the factory prior to shipping.

Connecting the indicator

Depending on the type of scale ordered, the cable from the load cell to the digital indicator will most likely need to be connected. Scales that are ordered pre-calibrated or typically Portable Hopper scales will have the connection already made.

Portable Hopper Scales are constructed with two load cells and require a junction box with a summing board which is included with the scale. The cable between the junction box and indicator will be prewired prior to shipping from the factory.

The load cell supplied will typically be a Tedea with a 10-foot cable. Do not cut the cable as the load cell is temperature compensated for an exact length of 10 feet.

Check the manual supplied with your indicator to determine the proper load cell cable input connections. Refer to the following chart for load cell wire codes:

Wire Color Code	**Function**
Green	+ Excitation (Input)
Black	- Excitation (Input)
Blue	+ Sense
Brown	- Sense
Red	+ Signal (Output)
White	- Signal (Output)

For alternate interchangeable load cell brands check the calibration certificate for wiring specifics. If supplied with a junction box, make certain that all the cord grip fittings are tightened with a wrench so that the internal rubber sleeve begins to protrude from the nut. Pull slightly on the cables to ensure they do not move.

Refer to your indicator's manual for specific calibration procedures. In general, you should place the indicator into "calibration" mode and perform a zero calibration with no weight on the scale. Then place test weights on the scale equal to 70%-80% of the scale's total capacity. If several test weights are being used, they should be spaced evenly around the platform.

Remove all test weights and check the zero reading on the indicator. If necessary, repeat the above procedure for calibration and then remove the indicator from its calibration model.

Trouble Shooting

- **The indicator does not operate (no display):** - *Check power source / plug*
  - *Fuse in indicator has blown*
  - *Connection cable is cut*
  - *Incorrect connection to scale*
- **The indicator display stays at zero:** - *Faulty indicator*
  - *Incorrect connection for load cell wires*
- **Varying weight indication:** - *Scale platform is not level*
  - *Check for items under platform (binding)*
  - *Load cell or cable water damage*
  - *vibration near scale (remove source)*
  - *Faulty indicator*
- **Consistently weighing incorrectly:** - *Scale platform / cover is binding*
  - *Overload stops are set too high*
  - *Indicator not calibrated correctly*
  - *Load cell is damaged*

Load Cell Replacement

If a load cell should need to be replaced, verify the part number with the spare parts list in this manual. Replacement cells should be of the same capacity as the cell that is being replaced.

Lift the scale's cover platter exposing the spider assembly and load cell. Unbolt the spider from the load cell, and then the load cell from the base.

Disconnect the wire leads from the indicator.

Prior to bolting the new load cell in place, route the cable back through the scale and reconnect the wire leads to the indicator.

Torque the mounting bolts per the following chart:

BOLT DIAMETER TORQUE
1/4"-20 14 FT. LBS.
5/16"-18 29 FT. LBS.

Recalibrate the scale per the previous instructions in this manual and per the indicator's

manual.

Replacement Parts

Part Number	Item	Notes
814-100077	100KG Tedea Load cell	Weigh-A-Round Load Cell
814-100078	150KG Tedea Load cell	Weigh-A-Round Load Cell
814-100079	1000KG Tedea Load cell	Weigh-A-Round Load Cell
814-100080	200KG Tedea Load cell	Weigh-A-Round Load Cell
814-100082	250KG Tedea Load cell	Weigh-A-Round Load Cell
814-100082	300KG Tedea Load cell	Weigh-A-Round Load Cell
814-100083	50KG Tedea Load cell	Weigh-A-Round Load Cell
814-100084	500KG Tedea Load cell	Weigh-A-Round Load Cell
814-100084	75KG Tedea Load cell	Weigh-A-Round Load Cell
812-500009	HBM PW12B Brick Load Cell	1K Weigh Buggy Load Cell