

# High Resolution Weighing Performance Check List



Follow these tips to get the best results out of your high resolution scale.

- Choose a quality base and indicator to handle the desired resolution.**  
Ensure both the scale base and indicator are capable of high resolution
- Six-wire active sensing configuration is required.**  
Using sense wires will compensate for the loss of voltage or amplify the return signal to compensate for the loss of power to the load cell helping to maintain more accurate readings.
- Use and properly terminate the shield wire.**  
Use and proper termination of the shield wire decreases interference from electromagnetic EMI, as well as radio frequencies.
- Ensure proper setup of the indicator.**  
Set the desired capacity and division size and adjust the filter to remove any flighty readings.
- Choose a location free of drafts, vibration and electrical interference.**  
As a scale resolution gets higher, so does its sensitivity to its environment. Eliminating vibration, draft and electrical interference will help keep the scale stable.
- Ensure that the floor/bench surface is solid.**  
Ensuring a solid surface will help minimize vibration and provide a solid foundation from which to work.
- Ensure that the scale is level and clear of any obstructions.**  
At higher resolutions, some of the smallest things can affect the accuracy of a scale, including its leveling and objects that may touch it.
- Ensure feet lock nuts are tight.**  
Tightening the feet lock nuts will keep the scale ridged and keep the feet from moving causing the scale to become unlevel.
- Adjust all base corners using the desired resolution as close to perfect as possible.**  
Chances are that your floor scale was factory-cornered at a lower resolution than what you want. Setting up the indicator to the desired resolution and performing a new corner adjustment will help match the electronics to your desired resolution.
- Ensure the interconnect cable is positioned properly.**  
Positioning the interconnect cable in a manner that allows it to work with the scale and not against it will help with repeatability and accuracy.
- Calibrate the scale with certified weights.**  
Calibrating your scale with certified weights ensures your scale is accurate and gives confidence that the scale is working properly.
- Periodically test the scale with a certified weight to ensure accuracy.**  
A scale that is set up in high resolution is more prone to needing adjustments vs a lower resolution scale because of the items mentioned previously. Testing the scale periodically will ensure your scale is performing as it should.

B-TEK's High-resolution recommended divisions are achieved based on capable indicating elements used with your B-TEK base and the scale environment. The recommended divisions are based on testing conducted using capable equipment in a controlled environment at ambient temperature without vibration or draft and had an accuracy of +/- 5 divisions at full capacity.