

Tips & Techniques:

Key Installation Tips: Sensor Mounting



As weight is added to an elevator car, the crosshead deflects under the strain. This is a measureable and repeatable deflection, which can be turned into a load weighing signal. This deflection occurs with virtually all traction elevator cab designs including hitch plate, single and double sheave ropings, non-isolated and isolated platforms (regardless of pad condition), and numerous other mechanical factors.

The K-Weigh™ Intelligent Load Weighing system uses an extremely sensitive crosshead mounted sensor to detect deflection in the crosshead. Proper preparation and mounting is critical to see reliable results. Taking care up front to be sure the sensor is mounted properly will save you a lot of time and effort, both in the initial setup and in future maintenance.

Keys to a successful K-Weigh™ installation:

1. The mounting of the sensor must be done with an empty car at the lowest landing.
2. The surface of the crosshead must be smooth and clean where the sensor will be mounted. This includes removing paint and other coatings from the surface of the C-channel.
3. The K-Weigh™ sensor must be positioned 1/2" to 3/4" (1.3 cm to 1.9 cm) in from and parallel to the open edge of the C-channel. **Use the included drill guide/sensor guard as a template to ensure proper sensor placement.**
4. The holes for the sensor mounting bolts must be drilled perpendicular to the top surface of the C-channel.
5. **All burrs and debris must be cleaned before final placement of the sensor.**
6. The bolts must insert easily into all of the holes without binding.
7. Bolts must be properly torqued:
 - 3/8" bolts: 30 ft-lbs (4 kg-m)
8. Once the bolts are tightened, shine a light behind the sensor to check that it is flush and tight to the C-channel. The center notch cut-out is the only place you should see light coming through.
9. Be sure that nothing is touching, resting on, or otherwise interfering with the sensor.
10. Pull excess sensor cable into and coil inside the box. (see *Radio Frequency Interference (RFI)*)

If you have any further questions or any difficulty with the calibration of the K-Weigh™ Intelligent Load Weighing system, please feel free to contact K-Tech Customer Service via e-mail or call 1-800-993-9399 or (860) 489-9399 for further assistance. Please have available the model number and serial number of the unit you are installing. Also, note the specific voltage readings you are seeing and any other information that may affect the installation.

Posted 1/8/2001

The included documents have been designed to provide helpful hints, further explanation, and solutions to common product issues. If you are unable to find an answer or a solution within these documents, please feel free to contact K-Tech Customer Service by e-mail at support@ktechonline.com or by telephone at 1-800-993-9399 or (860) 489-9399 for further assistance.



K-Tech International, Inc.

56 Ella Grasso Avenue • P.O. Box 1025
Torrington Connecticut 06790 USA

1-800-993-9399

(860) 489-9399 • Fax: (860) 489-4399

Internet: www.ktechonline.com

Sales: sales@ktechonline.com • Support: support@ktechonline.com