

What to Look for in Calibration of Your Video or Optical Equipment

The process of servicing and calibrating a video or optical measurement system is significantly different than a traditional calibration. When looking for a calibration provider there are some things that you should be aware of so you can ensure that your equipment is well taken care of and can provide you with the most accurate measurement data possible.

Manufacturer Training and Certification

Because of the nature of this equipment, using a factory-authorized and trained provider is critical. These systems are complex, delicate, and unique. You don't want someone who is untrained handling this valuable equipment. If a provider is factory trained and certified you can feel confident that their procedure meets or exceeds all the manufacturer's requirements.

Are they calibrating or just verifying your equipment?

While many providers can verify your measurement equipment, only select providers can also provide full calibration of your video or optical equipment and full compensation is something is found to be out of tolerance.

For a two-axis system, a full calibration includes:

- Linear of X and Y axis through the full travel of the device
- Squareness of X to Y-axis
- Squareness of Z-axis to X and Y plane
- Repeatability
- Magnification (optical only)
- Alignment of optics
- Alignment of light sources
- Alignment of drive assemblies

Full calibration of a three-axis system includes:

- Linear of X,Y, and Z-axis through the full travel of the device
- Squareness of X to Y-axis
- Squareness of Z-axis to X and Y-plane
- Repeatability
- Alignment of optics and camera
- Alignment of light sources
- Alignment of drive assemblies

Can they provide an accredited calibration?

Depending on your industry and quality system, you may need an accredited calibration of your video or optical equipment. If this is the case, you will want to make sure that your provider is ISO

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17025 accredited and that they are specifically accredited for your specific type of measurement. In addition to showing that your provider meets the specific requirements laid out by their accrediting body (A2LA, ANAB, etc.), your cert will include “as found” and “as left” data for your records. You can learn more about accredited vs. standard calibrations [here](#).

Can they update your software?

If you want to keep your equipment running at it's best, it's important that is not only calibrated but regularly serviced. Preventative maintenance for this type of equipment should include cleaning and lubricating all components, inspecting all cables, and verification that all parts of the machine are working properly. Doing this regularly can prevent much larger and more expensive issues down the road.

Are they also providing preventative maintenance?

If your equipment requires a software update when it's time for your annual service, some providers can update the software for you (depending on your service agreement). This helps you to make sure your equipment is operating properly at it's best and you are taking advantage of any new advancements and features. It's worth noting that these software updates are not always straightforward. Often you need to install the software in a very specific way to avoid malfunctions, lost data, and/or lost programming.

By asking the right questions when choosing a calibration provider you can reduce your risk of damaging your equipment or relying on less accurate measurement data. Cross Precision Measurement is a factory-authorized and trained service provider for Quality Vision International (QVI) products including the OGP and CCP lines. Our measurement professionals will make sure your equipment is properly serviced and calibrated to ensure it is working properly and providing reliable measurement data for you.