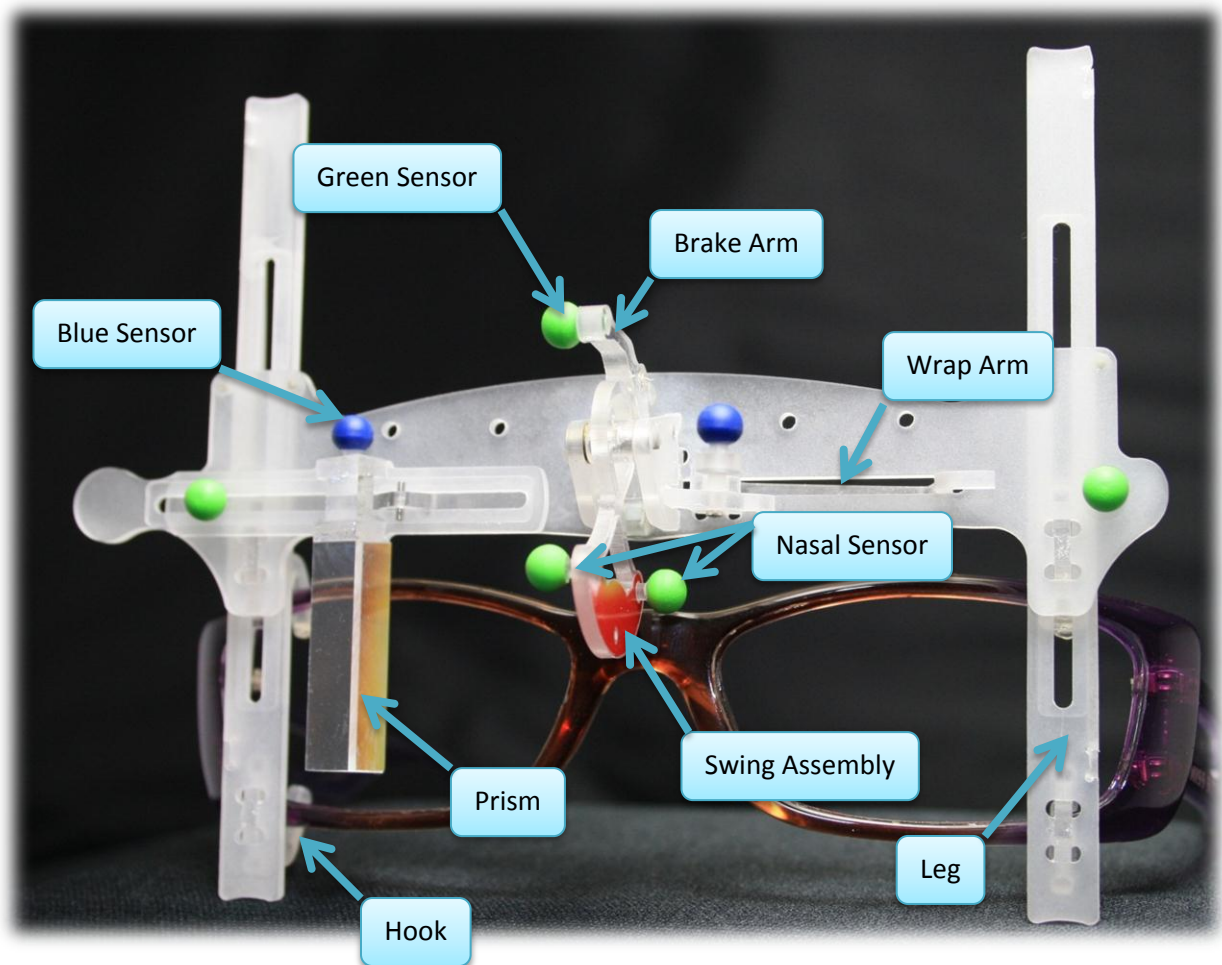


OPTIKAM ELECTRONIC CENTRATION GUIDE



The EY-Stick

The following EY-Stick components will be referred to throughout this document.



Pre-Fit

A proper pre-fit is the most critical step of the entire measurement process since all measurements will be based on one picture of the patient wearing their frames. To ensure correct results the frames must be fitted on the patient exactly as the patient will wear them.

Always fit and adjust the frame before making any measurements.



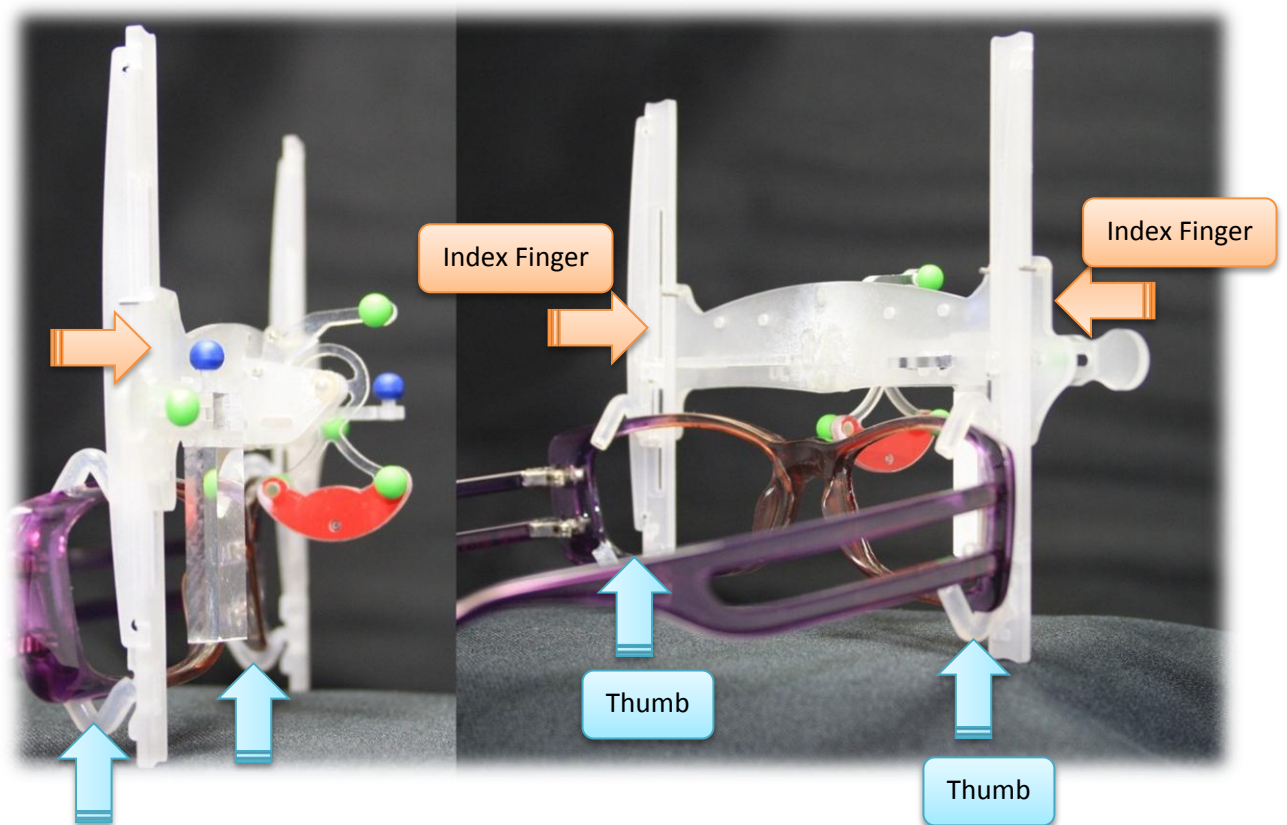
Clip-on the EY-Stick

The hooks hold the EY-Stick securely on the frame and assure that the device is placed in the correct plane in relation to the frame.

To properly clip the hooks:

1. Fully extend both legs.
2. To manipulate the EY-Stick place your index fingers on the sides of the EY-Stick and your thumbs at the bottom of the legs.
3. Place the top hooks over the top of the frame.
4. With your thumbs apply pressure to the bottom of the legs until both hooks are securely clipped around the frame.

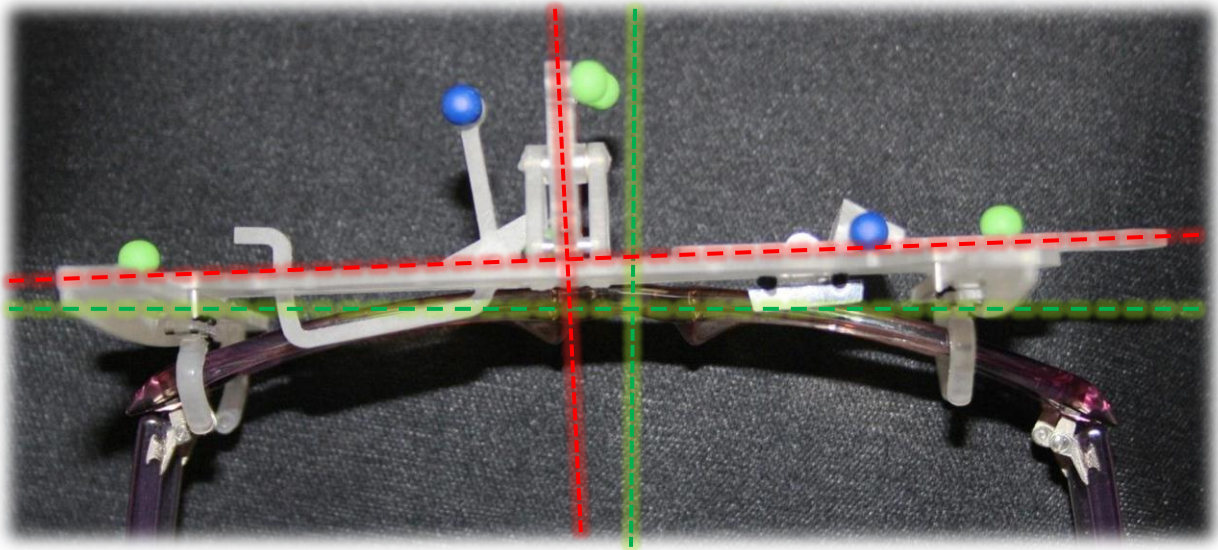
Applying excessive pressure will deform the EY-Stick and affect the measurements.





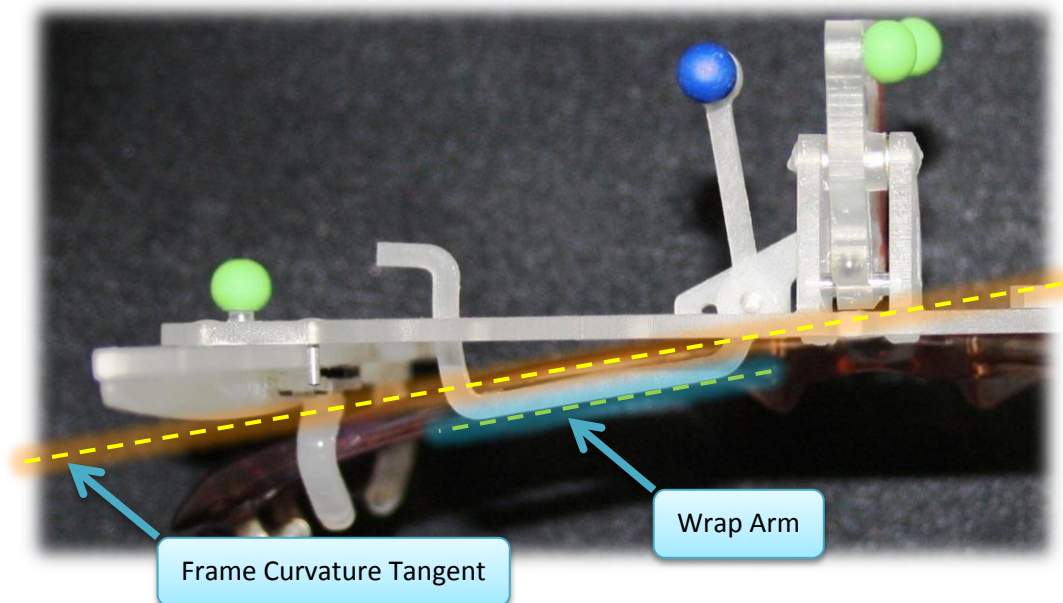
Position the EY-Stick

Centering the EY-stick on the frame ensures that the EY-stick and the frame are in the same plane. An EY-Stick that's incorrectly placed on a frame that has a large wrap will introduce a biased parallax which may impact the measurements. An easy way to see if the EY-stick is centered on the frame is to look at the Swing Assembly and visually make sure that it splits the bridge in two equal parts.



Position the Wrap Arm

The Wrap Sensor along with the Wrap Arm allows the Optikam system to measure the wrap angle. To attain proper measurement, the Wrap Arm must be positioned in parallel to the tangent of the frame's curvature. The Wrap Arm does not need to touch the frame or be placed over the frame.





Lock the natural posture (Swing Assembly)

The Swing Assembly is an essential element of the EY-Stick and the measurement process. It is used to capture patient's natural posture which will have a direct impact on seg. height measurements.

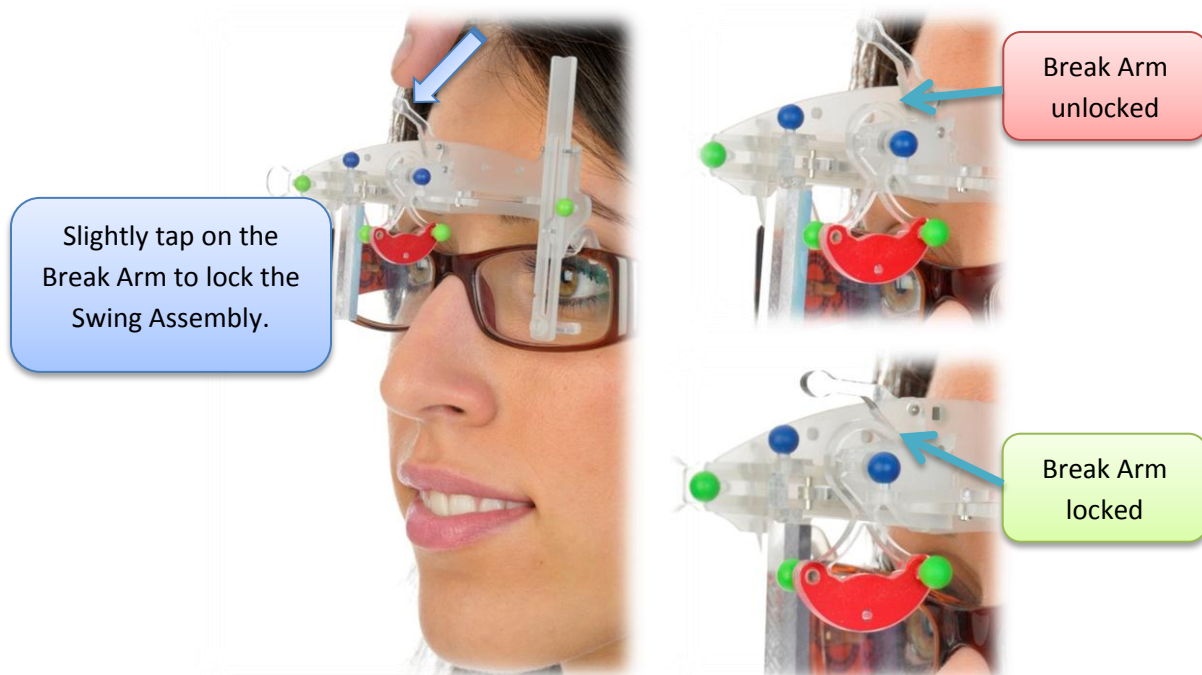
The ideal posture is that adopted by the patient for going about their daily tasks. In the case of progressive lenses the lens should work best for a patient when they are walking, taking in the view toward the horizon and the pathway (street / pavement) some 25-30 feet ahead without changing their posture. To see the pathway at closer range (say 7 feet) the patient would change their posture.

Challenges experienced when determining natural posture:

- **Not relaxed:** Many patients find it hard to relax and feel natural when standing in front of a camera. Instead they often stand to attention and assume the posture of a soldier on duty, rather than the way they would walk along the pavement. They look through a point in the glass which is TOO LOW.
- **Too relaxed:** Alternatively the patient is over relaxed and slouches in front of the camera. They look through a point in the glass which is TOO HIGH.

To properly lock the Swing Assembly: **(Must be performed AWAY from the camera)**

1. Unlock the Swing Assembly by lifting the Break Arm and ask the patient if they are comfortable with the way the frame is sitting on their face.
2. Make sure that the patient is in their natural posture. The patient can be sitting or standing (depending on patient's lifestyle), however the optician has to use his judgment in making sure that the patient is in their natural posture.
3. Once the optician is satisfied that the patient is in their natural posture, the optician should stand to the side of the patient and apply a slight pressure on the Break Arm to lock it.



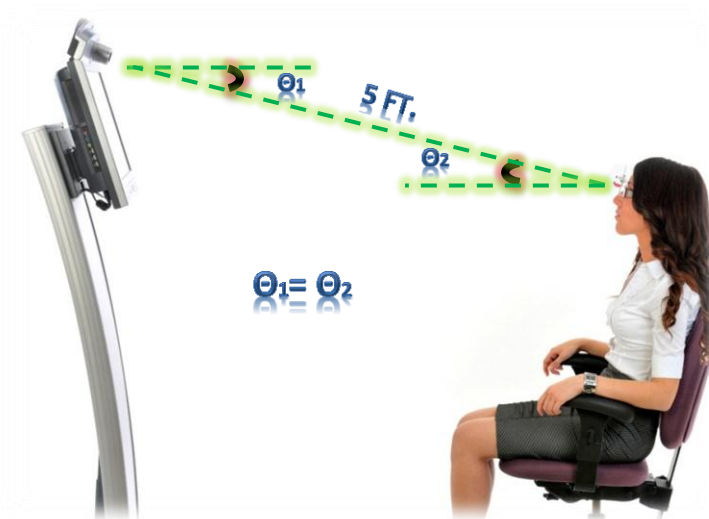
Once the natural posture is captured the primary line of sight becomes the camera. Patient's height in relation to the camera will have no impact on measurements as the patient will always be looking through the same part of the lens when the Nasal Sensors are lined up.

The following two scenarios will illustrate what happens when the patient is positioned below the camera. Note that the same principle applies to when the patient is positioned above the camera.

Patient at the same height as the camera:



Patient below the camera: Note that when the Nasal Sensors are lined up, the patient's natural posture is effectively reproduced. Patient's head is tilted up at the same angle as the camera is tilted down. In effect, this is equivalent to the patient being at the same height as the camera. Even though the patient is not in her natural posture at this point, she is still looking through the same part of the lens as at the moment when the Swing Assembly was locked and the natural posture was captured.



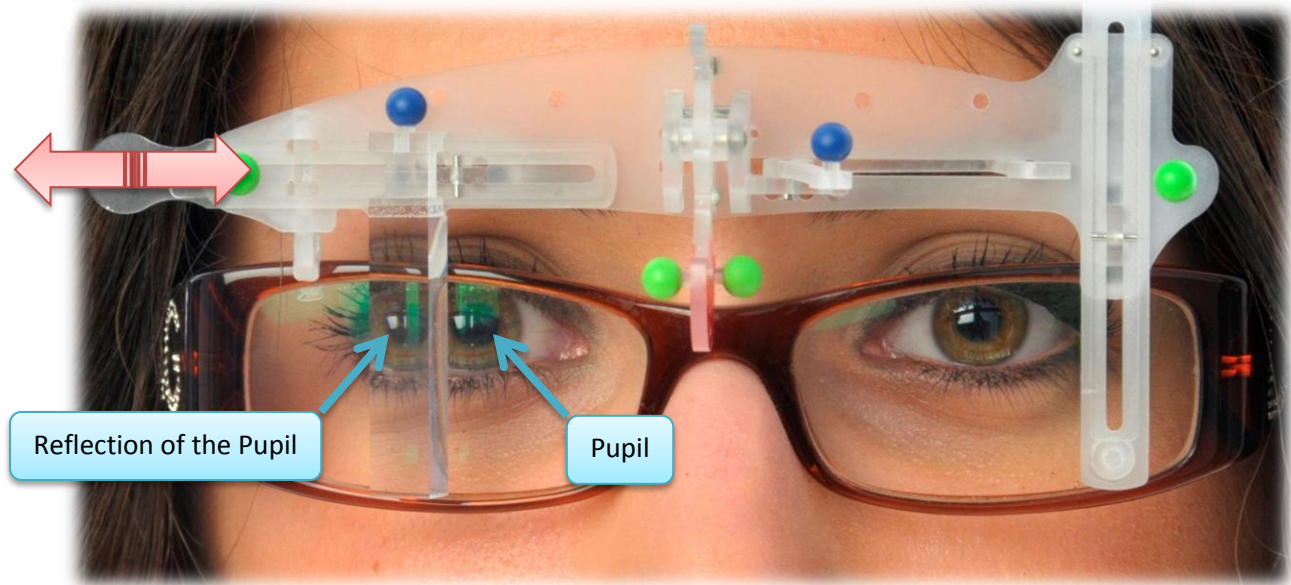
Locking the Swing Assembly in different postures will result in different seg heights.



Position the prism

The prism allows the Optikam to measure the Rear Vertex Distance (RVD) from a frontal image using one single picture.

To properly place the prism, look at the patient nose- to-nose, close your right eye then move the prism sideways until you are able to see both the patient's pupil and its reflection inside the prism.



Before taking the picture

Before proceeding to taking the picture, verify that:

- The frame has been properly fitted.
- The wrap arm has been properly positioned.
- The Swing Assembly has been properly locked.
- The prism has been properly positioned.



Take the picture

1. Position the patient 5-feet away from the camera.
2. Instruct the patient to move their chin up/down until the two (2) nasal green sensors are side-by-side.
3. Instruct the patient to, without moving their chin, look at the red light located above the camera lens.
4. The patient must remain still until the flash goes off and the picture is taken.



Verify the picture (picture taken correctly message)

We strongly recommend the optician to pause a few seconds and look at the picture to see if there is anything that they are not comfortable with. The optician should ask himself the following questions:

- Am I satisfied with the posture?
- Does the patient seem to be looking at the camera in the image?
- Do I seem to have enough clearance for the far distance?
- Do I seem to have enough height for progressives?

With little practice, the electronic measurement process shouldn't take more time than the manual process. However, now you'll be capturing all the measurements needed for free-form lenses and you have a tool that allows you to analyze the image and make sure that you are comfortable with the measurements prior to sending the job to the lab.

Good Centering!!

