

# Employing Custom Aligned Optics for

# AMPLEYE® Scleral GP Multifocals

Due to scleral elevation differences, lens mass and superior lid interaction, scleral lenses often decenter infero-temporal. While the spherical aberration control built into the Ampleye design corrects for visual symptoms that lens decentration can cause, it cannot correct for the optical displacement seen with multifocals. In many cases, the combination of lens decentration and angle kappa cause the center near optics to be out of reach. Employing custom aligned optics places the multifocal add directly in front of the pupil to provide presbyopic patients all-range acuity.

## Getting Started:

- ✓ Using your standard Ampleye Fitting set, follow the normal fitting procedures and be sure to document trial lens rotation by identifying the clock location of the rotation marks or SAG indicator.
- ✓ Order an Ampleye Multifocal lens based on your trial fit information using the recommended Standard Decentration with a 2.50 mm center near zone:
  - OD 0.75mm towards axis 45
  - OS 0.75mm towards axis 135 (see image 1 and 2)

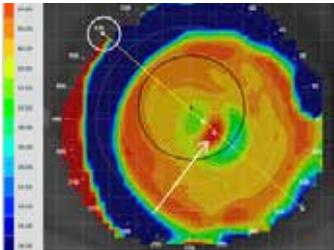


Image 1 - Multifocal without Custom Aligned Optics (left eye)

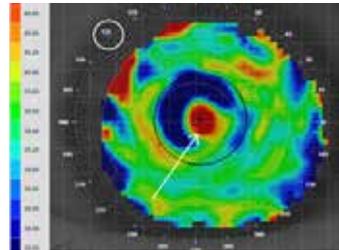


Image 2 - Multifocal with Custom Aligned Optics using Standard Decentration (OS 0.75mm towards axis 135)

## Follow-up:

- ✓ Perform Topography over Multifocal lens
  - Perform topography over the lens in-situ with the patient looking directly down the center of the instrument
  - Select the Tangential Power Map and customize the dioptric scale to decrease the dioptric range. In most cases, shrinking the span of the scale to 3-4 diopters from the steepest central reading works well (ie. steepest central reading is 40.00 so scale range should be around 38.00-41.00 (see image 3 and 4).

- If the optics still appear to be mis-aligned, forward topography to a fitting consultant to evaluate and discuss recommendations. Alternatively, using the ruler or measuring feature on your topographer, measure the distance between the center of the near optics to the center of the pupil and note the axis direction. Provide this information to a fitting consultant who can assist in fine-tuning the position of the center near optics.

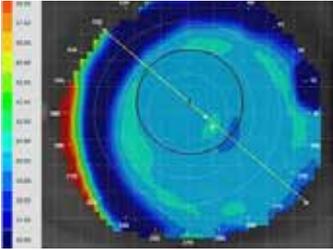


Image 3 - Tangential map with Standard power (35.00-50.00)

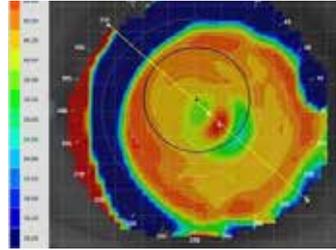


Image 4 - Tangential map with Custom scale (38.00-41.00)

### *Fine tune:*

- ✓ Measure pupil diameter in normal room lighting
  - The standard 2.50mm center near zone can be decreased or increased according to pupil size
- ✓ Lens diameter
  - If excessive lens decentration with the standard 16.5 diameter is noted upon slit lamp examination or topographical findings, a decrease in the diameter may improve lens position and assist in centering the optics.

### *Lens markings and insertion:*

- ✓ Document lens rotation
  - It is crucial to document the location of the lens markings during the trial fit and at all follow-up visits to ensure that the optics can be aligned in the correct direction
- ✓ Lens insertion
  - Directional lens insertion is required in order for the patient to achieve proper vision
  - Correct insertion will be assisted by a black dot located along the steep meridian placed 180 degrees from the engraved R/L (see image 5). Placement depends on the documented lens rotation but in most cases the black dot should be inserted superiorly.

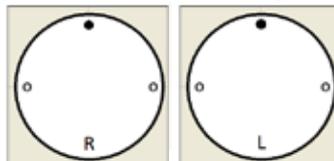


Image 5