

## **MEASURING VERGENCE FACILITY (MOTOR FUSION LIMITS) FOR A SHAW LENS**

### **WITH A RISLEY PRISM**

Measure motor fusion limits with patient seated behind phoropter (after finishing distance refraction). Encourage the patient to try to maintain clear single vision to their best ability as you introduce prism.

#### **BASE DOWN to BREAK OD**

- Introduce base down prism at a rate of approximately 1 diopter every 2 seconds.
- Record the break point. (when the patient sees double) in the SHAW lens software
- Return prism to zero
- Let patient rest for 5 – 10 seconds

#### **BASE UP to BREAK OD**

- Introduce base up prism at a rate of approximately 1 diopter every 2 seconds.
- Record the break point. (when the patient sees double) in the SHAW lens software
- Return prism to zero
- Let patient rest for 5 – 10 seconds

#### **BASE IN to BREAK OU**

- Introduce the Risley prisms to both eyes.
- Start at zero.
- Simultaneously add base in prism to both eyes at a rate of approximately 1 diopter every 2 seconds
- Record the total of right and left prism values at break in the SHAW lens software.
- Return prism to zero
- Let patient rest for 5 – 10 seconds

#### **BASE OUT to BREAK OU**

- Simultaneously add base out prism to both eyes at a rate of approximately 1 diopter every 2 seconds
- Record the total of right and left prism values at blur or break (whichever comes first) in the SHAW lens software.

There is no need to record recoveries for the purpose of the SHAW lens design.

Only measurements for distance are required.

Prism bars and loose prisms can be used to measure vergences as well. Allow the patient 2 seconds to adapt to each new presentation when using this method.