

## DOCTOR INSTRUCTIONS

Thank you for purchasing the Vision Assessment Corporation Popcorn Variable Vectograph P/N 1059.



### PURPOSE

A three-dimensional picture is used to strengthen the binocularity system and provide base-in and/or base-out training.

### FAMILIARIZE YOURSELF WITH THE VECTOGRAPH

- Polarized Variable Vectograph Vision Therapy System consists of:

1. 1 Therapy Binder



2. 1 Guide



3. 2 Vectographic Panels

- Panel 1 (Blue Bar at Bottom)



- Panel 2 (Numbers/Letters at Bottom)



4. 1 Pair Standard Polarized Viewers



(NOT TO BE USED AS SUNGLASSES)

5. 2 Instruction Manuals

- Doctor Instruction Manual
- Patient Instruction Manual

*This exercise works best if practiced daily as suggested. A Patient Instruction Manual has been included so the Vectograph Vision Therapy System can be sent home with the patient to allow for greater success through continued at-home usage and practice.*

6. 1 Patient Vision Therapy Record Form with Pen

### TESTING CONDITIONS

- Well-lit, glare-free area
- If reflections or glare on the Vectograph can be seen, try tilting the test or choose another testing location

## ADMINISTRATION

1. Place the polarized viewers on the patient.  
**PLEASE NOTE:** DOCTOR SHOULD ADVISE WHETHER OR NOT POLARIZED VIEWERS SHOULD BE WORN OVER PATIENT'S PRESCRIPTION GLASSES.
2. Hold the Vectograph approximately 16 inches (40 cm) in front of the patient.
3. Slide the 2 panels in the guide until the 0 appears in the opening on the blue bar at the bottom of the test.
4. Now ask the patient to look at the box containing the + located in the upper right-hand side of the Vectograph.
5. The patient should be able to see both the L & R (Left & Right) below the +. If the patient is unable to see both letters, instruct him/her to cover the opposite eye for the side he/she cannot see. For example, if the patient cannot see the R (Right), have him/her cover his/her left eye. Have the patient focus with the one eye until he/she is able to see the letter that was not previously seen when viewing the Vectograph binocularly. Then again have the patient view the Vectograph binocularly to ensure that now he/she can see both the L & R. Once both the L & R can be seen, the patient is ready to use the Vectograph.
6. Popcorn kernels, each with a corresponding letter, have been placed at various positions surrounding the Popcorn bucket. Some of the kernels float above the Vectograph, some kernels float behind the Vectograph and some are even with the Vectograph. Ask the patient to identify each letter and specify if the popcorn kernel floats above, behind or is even with the Vectograph. *As the panels are separated and the blue bar moves along the letters from A to P, the Popcorn bucket image should get larger and float behind the Vectograph (divergence). As the panels are separated and the blue bar moves along the numbers from 1 – 24, the Popcorn bucket image and targets should get smaller and float in front of the Vectograph (convergence).*
7. The most common letters in the alphabet have been used. Ask the patient to try to form and spell out words using the various letters. While spelling the word ask the patient to indicate whether each kernel floats above, behind or even with the Vectograph.
8. Refer to the "Scoring" section of this manual for examples of different words and for orientation of the letters and Popcorn bucket image to the Vectograph.
9. Repeat steps 7-9 while slowly sliding the panels apart. Ask the patient to continue to try to maintain a single image.
10. Have the patient notify you when he/she is no longer able to fuse the Popcorn bucket image. (This is the Breaking Point).
11. Note the number/letter in the space on the blue bar at the bottom of the Vectograph. Refer to "Scoring" section of this manual.
12. Next, as you slowly slide the panels back together, ask the patient to notify you when he/she is able to see the Popcorn bucket image as a single clear image again. (This is the Recovery Point).
13. Note the number/letter in the in the space on the blue bar at the bottom of the Vectograph. Refer to "Scoring" section of this manual.
14. Repeat steps 6 – 13 until patient can achieve the doctor's recommended goal.
15. Follow any variation on these exercises as recommended by the doctor.

## SCORING

- Each letter on the bottom blue bar represents one diopter (Base-In) (Divergence / Relaxing).
- Each number 1-10 on the bottom blue bar represents one diopter. (Base-Out) (Convergence / Crossing).
- Each number 10-24 represents two diopters. (Base-Out) (Convergence / Crossing).
- 40 diopter range of separation available.
- Refer to the Patient Vision Therapy Record Form.
- Record the date.
- Above the diagonal line in the row labeled "Relaxing" record the Breaking Point for the highest letter on the blue bar that the patient is able to reach.
- In the same row below the diagonal line record the Recovery Point for the highest letter from the blue bar at which the patient is able to fuse the images as a single clear image again.
- Repeat the previous 2 steps for the row labeled "Crossing" for recording the Breaking Point and Recovery Point for the highest numbers that the patient can reach on the blue bar at the bottom of the Vectograph.

## POPCORN ANSWER KEY

LETTER	KERNEL ORIENTATION	SECONDS OF ARC
A	ABOVE	+1000
M	ABOVE	+300
T	BELOW	-1000
U	EVEN	0
E	ABOVE	+800
N	BELOW	-300
I	BELOW	-500
R	ABOVE	+500
L	ABOVE	+100
H	ABOVE	+200
S	BELOW	-200
D	ABOVE	+400
O	EVEN	0

### SAMPLE WORDS:

MAT, HAT, RUN, SUN, NUT  
BIKE, LEAD, HIDE, RULE, TIME  
SMILE, SHINE

### IMAGE ORIENTATION:

BACK BUCKET EDGE = -160"  
CENTER TOP = +610"  
FRONT BUCKET EDGE = +694"  
BOTTOM OF BUCKET = -480"

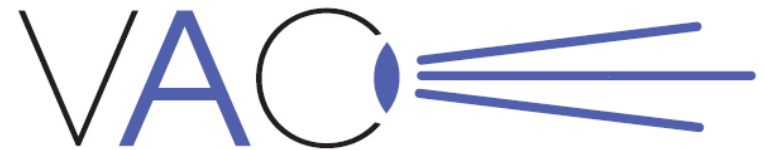
**LETTER ACUITY SIZE = 20/100**

## CARE/HANDLING & STORAGE

- Clean vectographic panels and guide with a soft, damp, lint-free cloth. Dampen cloth using glass cleaner or mild detergent/water.
- **CAUTION: DO NOT IMMERSE THE VECTOGRAPHIC PANELS IN WATER. DO NOT SPRAY CLEANER DIRECTLY ONTO PANELS.**
- ☀️☔ Store Vectograph in a dry place away from direct sunlight
- Clean polarized viewers using lens cleaner and soft, lint-free cloth
- If panels are removed from guide during cleaning, replace the panels in the guide placing the panel with the blue bar on top of the panel with the numbers/letters and ensuring that the plastic portion of the guide is behind the panels.

## WARRANTY

- 1 year manufacturer warranty from date of purchase



Vision  
**Assessment**  
Corporation

*Popcorn*

*Polarized Variable Vectograph*

**P/N 1059**

**DOCTOR INSTRUCTIONS**

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