## DOCTOR INSTRUCTIONS

Thank you for purchasing the Vision Assessment Corporation Bicycle Polarized Variable Vectograph (P/N 1045).

## PURPOSE



A three-dimensional picture is used to strengthen the binocularity system. This Vectograph offers equal accommodative demand for base-in and/or base-out training and utilizes images to produce a SILO Effect as an additional feedback tool for patient performance. SILO, an acronym for Small In Large Out, refers to the change of the perceived size of an image that a patient experiences while maintaining fusion when convergence or divergence is varied.

## FAMILIARIZE YOURSELF WITH THE VECTOGRAPH

- Polarized Variable Vectograph Vision Therapy System consists of:

1. 1 Guide
2. 2 Vectographic Panels

- Panel 1 (Blue Bar at Bottom)

- Panel 2 (Numbers/Letters at Bottom)


3. 1 Pair Standard Polarized Viewers
(NOT TO BE USED AS SUNGLASSES)
4. 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
5. 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 $(40 \mathrm{~cm})$ 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. Begin by performing a suppression check. The patient should be able to see the + in the lower right corner. If the patient is unable to see both the horizontal and vertical lines of the plus, instruct him/her to cover the opposite eye for the side he/she cannot see. For example, if the patient cannot see the vertical line of the plus sign, have him/her cover his/her left eye. Have the patient focus with the one eye until he/she is able to see the line 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 horizontal and vertical lines of the plus sign. Once the complete + sign can be seen, the patient is ready to use the Vectograph.
5. Each of the images within the Vectograph are at different levels of depth with varying seconds of arc. Ask the patient to point to/say an image within the Vectograph and indicate whether it appears to be floating away/out from them (BELOW the Vectograph), towards them/in (ABOVE the Vectograph) or if it does not appear to float (EVEN with the Vectograph). Have the patient indicate which images appear to be floating away (BELOW) the most and which appear to be floating towards them (ABOVE) the most.
6. Refer to the "Answer Key" section of this manual for the seconds of arc and direction and depth of float for each of the images.
7. Next, while slowly sliding the panels apart ask the patient to try to maintain a single image while repeating Step 5 .
8. Have the patient notify you when the images double or when he/she is no longer able to fuse the images. (This is the Breaking Point.)
9. Note the number/letter in the space on the blue bar at the bottom of the Vectograph. Refer to "Scoring" section of this manual.
10. Next, as you slowly slide the panels back together, ask the patient to notify you when he/she is able to see the doubled images as a single clear image again. (This is the Recovery Point.)
11. 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.
12. Slide the Vectograph slowly so that the opening on the blue bar moves along the letters from A towards T. Ask the patient to indicate if any of the images change in size and direction of float. The Hot Air Balloon should appear to get Smaller and float In (Above the Vectograph), while the other images will simultaneously appear to grow Larger and float Out (Below the Vectograph). For an advanced exercise, ask the Patient to look at the Balloon and then the park images and repeat, having the patients' eyes jump back and forth between images.
13. Slide the Vectograph so that the opening on the blue bar now moves slowly along the numbers from 1 towards 20. Again, ask the Patient to indicate changes in size and direction of float of the images. As the park images appear to get $\underline{\mathbf{S}}$ maller and float $\underline{I n}$ the Balloon image will appear Larger and float Out. For an advanced exercise, ask the Patient to look at the Balloon and then the park images and repeat, having the patients' eyes jump back and forth between images.
14. Repeat steps $5-13$ until patient can achieve the doctor's recommended goal.
15. Follow any variation on these exercises as recommended by the doctor.

## SCORING

- Each letter A-T 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 12-20 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 box, 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.


## ANSWER KEY


$+2150^{\prime \prime}+1610^{\prime \prime}$
$-500^{\prime \prime}$
Depth Levels (Seconds of Arc) / Image Orientation to Vectograph: (Clockwise Left to Right)

Front Bicycle: 2150" / ABOVE
Bridge: -2500" / BELOW
Balloon: -400" / BELOW
Fence: -2155" / BELOW

## 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.

- 类 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

Notice to User/Patient: Any serious incident that has occurred in relation to this device should be reported to the manufacturer and to the competent authority of the Member State in which the user and/or patient is established.

## VAC <br> Vision <br> Assessment Corporation

## Bicycle

Polarized Variable Vectograph
P/N 1045
DOCTOR INSTRUCTIONS

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