### **TECHNICAL MANUAL FOR DOCTORS**

Thank you for purchasing the Vision Assessment Corporation Planets Polarized Variable Vectograph (P/N 1041).



# **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 Technical Manuals
  - Technical Manual For Doctors
  - Technical Manual For Patients

This exercise works best if practiced daily as suggested. A Technical Manual For Patients has been included so the Vectograph Vision Therapy System can be sent home with the patient to allow for greater success through continued athome 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**

Place the polarized viewers on the patient.

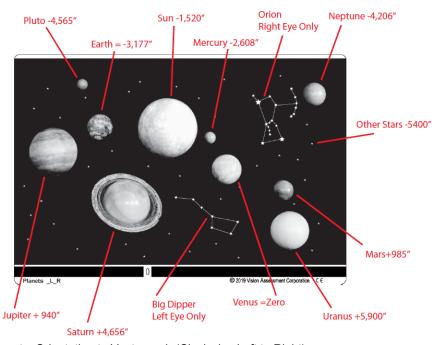
PLEASE NOTE: DOCTOR SHOULD ADVISE WHETHER OR NOT POLARIZED VIEWERS SHOULD BE WORN OVER PATIENT'S PRESCRIPTION GLASSES.

- 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. Begin by performing a suppression check. Have the patient look at the Planets and groups of Stars and ask the patient to point to or indicate the number of constellations (groups of stars) seen.
  - The patient should see TWO constellations, the Big Dipper should be seen with the Left Eye and Orion should be seen with the Right Eye. If the patient does not point to or indicate 2 constellations, the patient is suppressing vision in one eye. If the Big Dipper on the Left cannot be seen, the patient is suppressing vision in their Left Eye. Order the patient to cover their Right Eye and have the patient focus with their Left Eye until he/she is able see the Big Dipper. Then again have the patient view the Vectograph binocularly to ensure that this constellation can be seen.
  - If the patient does not see the Orion constellation on the Right, the patient is suppressing vision in their Right Eye. Order the patient to cover their Left Eye. Have the patient focus with their right eye until he/she is able see the Orion constellation when viewing the Vectograph binocularly. Then again have the patient view the Vectograph binocularly to ensure that Orion can be seen.
- 5. Once the patient can see both constellations, the patient is ready to use the Vectograph.
- 6. Each of the Planets within the Vectograph are arranged at different levels of depth with varying seconds of arc. Ask the patient to point to/identify each planet and indicate whether the image appears to be floating away from them (BELOW the Vectograph), towards them (ABOVE the Vectograph) or if the image appears EVEN with the Vectograph.
- 7. Refer to the "Answer Key" section of this manual for the seconds of arc and orientation of float for each of the images.
- 8. Next, while slowly slide the panels apart ask the patient to try to maintain a single image while repeating Step 6.
- 9. Have the patient notify you when the images double or when he/she is no longer able to fuse the Planet images. (This is the Breaking Point.)
- 10. Note the number/letter in the space on the blue bar at the bottom of the Vectograph. Refer to "Scoring" section of this manual.
- 11. Next, as you slowly slide the panels back together, ask the patient to notify you when he/she is able to see the Planet images as a single clear image again. (This is the Recovery Point.)
- 12. 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.
- 13. Repeat steps 6 12 until patient can achieve the doctor's recommended goal.
- 14. Follow any variation on these exercises as recommended by the doctor. **SCORING**
- Each letter A-P 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 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**

Planets, Depth Levels in seconds of arc:



Planets, Orientation to Vectograph (Clockwise Left to Right):

Saturn: ABOVE Mercury: BELOW
Jupiter: ABOVE Neptune: BELOW
Pluto: BELOW Mars: ABOVE
Earth: BELOW Uranus: ABOVE
Sun: BELOW Venus: EVEN

Stars: 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.
- 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



**Polarized Variable Vectograph**P/N 1041

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