Orthoptic Exercises

Vortex Polarized Vectograph for Esophoria and Esotropia

Patients can improve Orthoptic Exercise outcomes with this home reinforcement Vision Therapy system. Letters provide orientation to the vortex image above below and even with the image at +/- 600 seconds of arc. This Vortex (with central targets) is often recommended for esophoria and esotropia. Vortex provides 16 diopter range for base-in (divergence) training and 24 diopter range for base-out (convergence) training for a total accommodation range of 40 diopters. Kit includes: Right and Left Vortex Vectographs, Vecto Guide, Adult Stereo Viewer, Therapy Binder, Administrator and Patient Manuals and Recording form with pen.

Gem Polarized Vectographs for Exophoria and Exotropia

Some physicians report that in early training exercises, the Gem (without a central target) works better for exophoria and exotropia patients. This Gem series of Vectographs for Orthoptic Exercises have three different variations: Gem, Gem with Fusion Lock and Gem with No Fusion Lock (sold separately). These can be administered in the office or may be sold or loaned to the patient for continued exercise. The recording form permits the Administrator to outline an exercise regimen for the patient to follow and then record their daily results. These Vectographs, like the Vortex product, provide the same accommodation range of 40 diopters. Each of these kits include Therapy Binder, the selected (Gem, Gem with Fusion Lock and Gem without Fusion lock) Right and Left Vectographs, Vecto Guide, Adult Viewer, Both Administrator and Patient Manuals plus Recording form with pen.

Variable Fixation Disparity Target - Polarized Vectograph

Kit includes: Therapy Binder, Right and Left Variable Fixation Disparity Target Vectographs, Vecto Guide, Adult Viewer, Administrator Manual with pen.

Binocular Vision Diagnostic & Treatment Master Kit

This kit is designed for the Administrator’s office. The kit includes all three of the different Gem Vectographs (with the three Right and Left Vectographs and Vecto Guides) plus Therapy Binder, Near and Far Fixation Disparity Targets, Adult Viewer and Administrator Manuals with pen.
**Technical Bulletin**

**Vectograph Viewers, Single or Double Height**

Orthoptic exercises using the new line of vectographs from Vision Assessment can be significantly simplified by the use of a viewer that holds the vectographs at the proper angle and facilitates sliding the vectographic panels to the ‘breaking point’ and back to the ‘recovery point’. These vectograph viewers support the full extension of the panels to their maximum base-in and base-out capabilities. A white background behind the vectograph supports base-out vergence work (convergence). The white background can be removed to reveal the clear background. This permits use of the vectographs for fusional divergence work which requires that the patient view beyond the plane of the vectograph.

Richmond’s viewers include small Plexiglas™ dowel handle(s) with double-sided tape that can be applied to front of the vectographic panel. The handles provide a smooth method to slide the vectographs apart without the patient touching the panel thus maintaining cleanliness of the panel. Handles are also sold separately. In addition, the viewer’s grooves provide enough separation of the panels to reduce scratches. The viewer angle works with a standard desk height of 27 1/2 inches at the recommended test distance of 16 inches. The patient’s chair can then be adjusted to provide eye height of 43 inches. The weighted base provides a stable position to ensure smooth operation.

Single Viewer Dimensions: Base: 5 1/2 in. wide by 4 in. deep (140 mm x 100 mm), Height: 7 3/4 in. (197 mm), Overall Width: 10 1/2 in. (267 mm), Weight: 27 oz. (764 g).

Double Viewer Dimensions: Base: 5 1/2 in. wide by 4 in. deep (140 mm x 100 mm), Height: 12 1/2 in. (32 cm), Overall Width: 10 1/2 in. (267 mm), Weight: 36 oz. (1.03 kg).

5856R Vectograph Viewer - Single Height  
5878R Vectograph Viewer - Double Height  
6056 Plexiglas Dowel Handle - pack of 4

**Polarized Fixation Disparity Targets**

Each set includes a Near or Far Fixation Disparity Card with Adult Viewer and Manual

5770x Near Disparity Target  
5771x Far Disparity Target
Binocular Accommodative Saccadic Series Vectographs

This new Binocular Accommodative Saccadic Series of Vectographs provides a highly sensitive measure of the patient’s relationship between their fixation disparity (binocular alignment) and their accommodative functions (clarity). This is accomplished in a series of exercises that induce stress producing cognitively loaded saccadic movement. The result is a dynamic measurement of binocular and accommodative functions during a saccadic eye movement task. This task involves identification of a sequence of saccadic identification targets at two acuity levels: 20/100 and 20/63 (0.7 and 0.5 LogMAR).

These products are available as separate Fixation and Randomized Targets, sets of each Vectograph or a Master Set of the entire BASS tools kit (intended for the Eye Care Professional’s Office).

The larger targets require a lower acuity level (20/100 or 0.7 LogMAR) to evaluate the visual function. These are more equivalent to Large Print books. The smaller targets require a higher acuity level (20/63 or 0.5 LogMAR) to monitor binocular and accommodative functions similar to reading demands at higher school grade levels. They are equivalent to Standard Print books.

**Fixation Disparity Targets:**

![6141 Large Fixation Disparity Target](image1)

6141 Large Fixation Disparity Target (Large and Standard Crosses) includes Stereo Glasses and Manual

![6142 Small Fixation Disparity Polarized Target](image2)

6142 Small Fixation Disparity Polarized Target (Large and Standard Crosses) includes Stereo Glasses and Manual

**Randomized Targets:**

![6143 Randomized Large Fixation Disparity Polarized Target](image3)

6143 Randomized Large Fixation Disparity Polarized Target (Randomized Large Crosses) includes Stereo Glasses and Manual

![6144 Randomized Small Fixation Disparity Polarized Target](image4)

6144 Randomized Small Fixation Disparity Polarized Target (Randomized Large Crosses) includes Stereo Glasses and Manual
Large Saccadic Vectograph:

6139 20/100 Large Saccadic Polarized Variable Vectograph Set

6139 Vectograph Set: 20/100 Large Saccadic Polarized Variable includes binder, Right and Left Vectographs, Guide, Stereo Glasses, Manual and Pen

Small Saccadic Vectograph:

6140 20/63 Small Saccadic Polarized Variable Vectograph Set

6140 Vectograph Set: 20/63 Small Saccadic Polarized Variable includes binder, Right and Left Vectographs, Guide, Stereo Glasses, Manual and Pen

Master Set:

6145 BASS Master Set Includes Therapy Binder and 6139, 6140, 6141, 6142, 6143, and 6144 with Stereo Glasses, Manual and Pen
Orthoptic Exercises

**Polarized Fixation Disparity Targets**
Each set includes a Near (1065-NFR) or Far (1065-FFD) Fixation Disparity Card with Adult Viewer and Manual

- **5770x Near Disparity Target**
- **5771x Far Disparity Target**

**Dinosaur Stereogram Cards**
These transparent plastic cards have been designed to help with home training of monocular and binocular vision skills.

The multi-purpose card has three grades of stereogram and exercises for convergence, jump versions, focusing, fixation, saccades and directionality. The cards come with comprehensive instructions and are available in packs of three or ten. The cards are 18 x 13 cm (7 x 5 inch) semi-rigid plastic.

- **5984 Dinosaur Stereogram Cards Pack of 3**
- **5985 Dinosaur Stereogram Cards Pack of 10**

**Reversing Red/Green or Polarized**
Red/Green on top and Green/Red on the bottom. Or, Alternating Polarized lenses. Use for Vectograms and Tranaglyphs to reverse the image to convex and concave

- **4943R Reversing R/G Flippers**
- **4944R Reversing Polarized Flippers**

**Brock Strings**
Consists of a white string 10 or 12 feet in length with three (3) small wooden beads of different colors. Alternate models are 6 or 12 ft with 5 beads. These are used for treatment of convergence insufficiency and other anomalies of binocular vision as well as to disrupt suppression of one of the eyes. During therapy, the end with the stick is held near the tip of the nose while the other end with the loop is hung to a fixed point like a door knob. Dozen Pack includes 12 sets of instructions.

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**Fixation Pencils - Alphabet and Symbols**
The Alphabet Pencil has a vertical row of letters A to Z printed on both sides (up one side and down the other). The Pediatric version has eight symbols printed on one side. Both versions come in packages of one dozen pencils.

- **4782R Alphabet Fixation Pencils**
- **6014R Pediatric Symbol Fixation Pencils**
Near Point Dot: Accommodation Cards

These double sided dot and letter cards are used to measure the near point of convergence and accommodation. They can also be used for home exercises. The range is 6 cm to 24 cm. Full, clear instructions for the practitioner to teach the patient are included. Comes as a - Pack of 50

5524 Near Point Dot: Accommodation Cards

Rainbow Readers: Visual Motor And Perceptual Skills

These VMPS1 booklets contain a series of exercises to improve tracking and hand-eye coordination in children who struggle with letter/word reversal, lose their place when reading or guess or skip words. Two different levels are offered. Poor developmental eye movement or slow reading test results indicate these exercises may be helpful.

Symbols are used to help the visual discrimination and orientation skills needed for reading. They are graded in 12 sizes and spacing levels and divided into two booklets, according to the severity of the tracking problem. Level 1 has larger symbols for younger children and those with severe difficulties and Level 2 has the more challenging, smaller sizes. This provides a comprehensive treatment for children age five years and above. Full practitioner and patient instructions are included. CE

VMPS Book 2 contains treatments to help with letter and number confusions. Symbols and some letters are used in several fun exercises and games to develop visual memory, visual sequential memory, visual spatial relationships and directionality. Full practitioner and patient instructions are included. Exercises may be reproduced. CE

VMPS1.1: Visual Motor and Perceptual Skills Book 1 Level 1 - Pack of 5
VMPS1.2: Visual Motor and Perceptual Skills Book 1 Level 2 - Pack of 5
VMPS2: Visual Motor and Perceptual Skills Book 2 Reproducible

Dominant Eye Test

This box simplifies determination of the child’s dominant eye. The box is held at arm’s length and the child is asked to align the star and the circle while each eye is occluded. Only a ‘yes’ or ‘no’ answer is required. Full instructions are included. Includes unbreakable 9 inch White Occluder.

It is important to know which eye is dominant in case it differs from the dominant hand. This condition, called cross laterality, is known to cause certain specific difficulties with reading, writing and telling left from right. CE

5539R Dominant Eye Test Box w/ Occluder

Slant Board

It is critical for children with visual processing difficulties to have the proper learning environment in order to improve their reading and writing skills. Research has shown an important relationship among posture, working distance, desk surface and corrective eye wear. Pioneering experiments by Dr Darrel Boyd Harmon and, later, Drs John Pierce and Steven Greenspan have proven that there is improved learning performance when the proper condition are established for near-point visual activities such as reading and writing.

Dimensions: 12 x 18 inch (30 x 45 cm)surface with rear legs that stand up to produce a 22° angle.
Weight: 1.5 lbs (680 grams)
Storage: Fits in a space 12 x 18 x 2 (30 x 45 x 5 cm)

5627 Slant Board
Orthoptic Exercises

**Metronome For Timed Exercises**
- Adjustable pace from 40 to 250 BPM
- Accent Beat
- Bouncing Ball visual rhythm indicator
- Stand included

Easy to set tempo and beat time settings. Choose 2/4, 3/4, or 4/4 tempo then select BPM in range from 40 to 250 Beats Per Minute. The first beat of each tempo indicated by a slightly different pitch. Audible tone and bouncing ball on LED screen show rhythm. Audio can be muted. Fold-out stand on the back to prop up for easy viewing. Operates on popular watch battery (CR2052) included. Size: 2 1/4 x 3 1/2 x 3/8 inches (53x 85 x 10 mm).

**5577R Metronome with stand and battery**

**Flipper Rack Sets, 6 or 12 Flippers or 5 Prism Flippers**
Both Flipper sets use the same colors for the same power flippers. That way you can immediately identify the flipper you need, regardless of which set you have at each station. Flippers are marked with diopter power and have a durable soft handle. Plus lenses on the top and the minus lenses on the bottom. Each includes a clear acrylic holder. A Canvas Pouch is also available.

The 6 Flipper Set has +/- 0.25, 0.50, 0.75, 1.00, 1.50 and 2.00.

**5890R Set of 6 Flippers with Stand**

The 12 Flipper Set has +/- 0.25, 0.50, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75 and 3.00.

**5892R Set of 12 Flippers with Stand**

5 Prism Flippers in 2, 3, 4, 6 and 8 diopters with base in and base out, plus one occluding Flipper and Stand.

**5379R Prism Flipper Set with Stand**

**Individual_ Flippers**

**Sphere or Prism**
Other powers and combinations are available. Please call or e-mail us your specifications.

**Stick Prisms Stay Clean Of Fingerprints**
Mounted on stainless steel sticks for easy presentation. Stick Prisms are more sanitary. Size: 37mm square. Available as your choice of 16 or 22 piece set or individually. Sets includes storage box.

**4671R 16 PC Stick Prism Set**

**5248R 22 PC Stick Prism Set**

**2-inch Eye Model with Muscles**
Incredibly detailed 2-inch Eye Model showing 6 muscles, Lacrimal Gland, and full range of parts of the eye such as Cornea, Lens, Iris etc. Front hinged. Illustrated booklet, colorful. Eye is 1 7/8 inches (5 cm). Excellent for eye muscle explanations. Available unassembled as a 35 piece puzzle. (P/N 5464R). It’s quite a challenge! Also available Fully assembled, with clear display case that opens. (P/N 5465RR).

**5464R Eye Model with Muscles, unassembled**

**5465RR Eye Model, display stand, Assembled**