CIRCLES
(with random dot ground)

This multiple-choice series tests fine depth discrimination. Within each of the targets are three circles. Only one of the circles has a crossed disparity, which, when seen binocularly, should appear to stand forward from the other two. Ask which one seems to float forward or appears "different" from the others: left, middle or right. Asist the subject by running your finger across all three circles and then have the subject point to the one they selected.

SCORING - Refer to the chart. Record the level of stereopsis at the last one chosen correctly. If one is missed, go back and test the preceding line again to determine whether subject can achieve this or is just guessing.

The suppression check is useful in analyzing the visual balance of the two eyes. The right eye sees the R and a vertical line and the left eye sees the L and a horizontal line, which in normal binocular vision combines with the vertical line to form a cross. The relative stability of these can give clues of eye dominance, and of course gross fading or absence indicates a failure of that eye to function properly under binocular conditions. A change manifest in the appearance of the forms when covering the opposite eye may help to indicate the nature and degree of malfusion present.
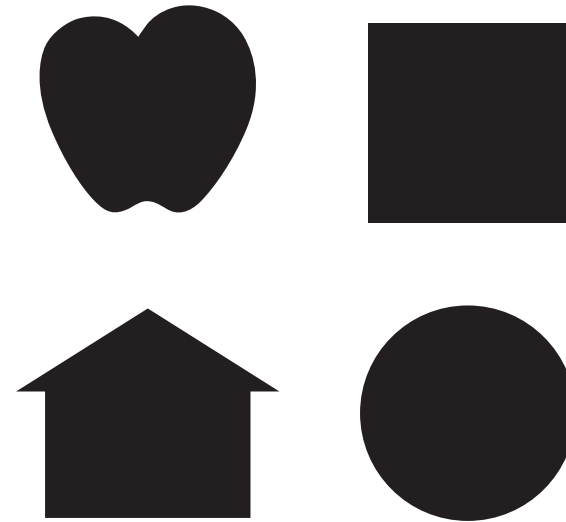
Scoring Key		Seconds of arc at 16 in.
1	L	400
2	R	200
3	L	140
4	M	100
5	R	70
6	M	50
7	L	40
8	R	30
9	M	25
10	R	20

NOTE: Please store stereotests in a cool, dry place when not in use. High heat and humidity may cause fading.

Do not spray any liquid directly on test or 3D viewers. Clean with soft, slightly damp cloth only.

RANDOT® STEREO TEST

LEA Test Intl, LLC ™

Rev. 09/14/2018

P/N 70021L

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STEREO OPTICAL

RANDOT Stereotests

Stereopsis, as a discrete test of the ability to binocularly discern a difference in the distance from the observer of two static objects, has been attended by many variables that have made it difficult to correlate various tests by the measure of binocular parallax. Form (both figure and ground), size, contrast, and distance between objects also influence judgment, and some figure-ground configurations include monocular clues that may invalidate the test.

The RANDOT Stereotests provide the opportunity to achieve excellent validity and reliability. Binocularly devised random dot patterns, made popular by computer technology, require the individual to extract a form figure from ground without the help of any monocularly visible contours. As disparity is reduced, however, the subject needs additional help to separate the form of figure from ground, so monocular contour is added. But whether homogeneous or diverse, figure and ground are contiguous with no lateral or vertical distance between them to influence judgment. Although the homogeneous RANDOT test prescribes a "form" response, it is valid if there is perceived only "something" or "nothing" at the proper locations.

The RANDOT Stereotests provide three variations to facilitate testing of individuals at different levels of comprehension as well as a gradient of disparity:

1. Large homogeneous areas containing simple forms at two levels of gross disparity, with each set having one blank to act as control.

2. Symbols to attract the interest of young children are arranged at three gross levels of disparity.

3. Contoured circles at ten levels of disparity provide a finely graded sequence for critical testing.
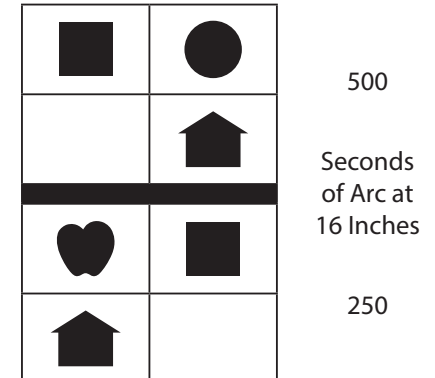
TO ADMINISTER, hold the test upright before the subject to maintain the proper axis of polarization; also, do not permit the head to tilt to the side. Provide adequate light, but avoid reflections from the surface of the test- a dark area or curtain behind the subject helps. Although the tests are graded for 16 inches, some variation in distance should have little effect on the score. Polarizing viewers must always be worn-over prescription glasses, if used. For the bifocals wearer, position the test properly for near-point viewing. Impaired acuity itself may blur the random dot pattern to a point where an otherwise normal person cannot separate a disparate form from the background.

RANDOT Forms

Simple geometric forms are centered in each area except one, which acts as a control. A direct procedure is to ask which area does **not** appear to have any form in it. The mature child may be able to identify the forms, but an acceptable response is that there is "something" or "nothing" in the proper areas. If there is not a quick response with the forms, do not conclude too rapidly that there is no stereoscopic fusion. Some binocular individuals rely heavily on monocular clues of depth such as motion parallax, overlap size, perspective, shading, and when binocular disparity is the only one present, as in this test, the perceptual response may develop slowly. So let the subject study it for a while and provide encouragement and suggestions. Poor response from some children may be because of communication difficulties and not visual inadequacy. Be simple and direct to assist understanding. Encourage the child to point rather than relying solely on verbal responses.

Presenting the test upside down will reverse the polarity of the images, making the form appear behind ground instead of forward, but it is usually easier to perceive the form if it is forward of ground.

Use the front page of these instructions to help the non-verbal subject match the form they see.

500

Seconds of Arc at 16 Inches

250

SYMBOLS
(with random dot ground)

In each of the three tests only one of the symbols should appear forward from the others or "different". It will help the children if you move your finger across the symbols in the line being tested and ask, "Does one of these symbols seem to come out closer to you than others?" Then have the child point to the one selected.

SCORING - Refer to the chart. Administer each line in order. When one is missed go back and test the preceding line again to determine whether the subject can achieve this level or is just guessing.

SCORING KEY		Seconds of arc at 16 in.	Shepard Percentage	Verhoff Distance
A	Apple	400	15%	.1
B	Square	200	30%	.2
C	Circle	100	50%	.3