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## Instructions for Use: Large Neutral Density Bar (15117)

Contents: Large Neutral Density Bar and Pouch

### Intended Use:

The Neutral Density Bar (neutral density filter bar) allows for the testing of pupil reactions to light sources while having differing light intensities stimulate each eye.

A medical professional can use this device along with a light source to examine a patient's pupillary responses during a swinging light test (or alternating light test) to determine and grade the Relative Afferent Pupillary Defect (RAPD) utilizing the log units engraved on the bar. The Neutral Density Bar can be used to quantitate the grade of RAPD to 0.3, 0.6, 0.9, 1.2, 1.5, and 1.8 log units.

The Neutral Density Bar has filters that increase in neutral density going down the bar. These are comparable to the log units engraved on the bar.

### Procedure:

Neutral density filter balancing is utilized by placing the bar over the good eye and matching pupil dilation with the RAPD affected eye's dilation while going back and forth shining a penlight effectively abolishing the asymmetry of the response of the two pupils. Start with the lightest filter 0.3 Neutral Density and proceed to move the bar down to increase filter density. Once the RAPD is abolished, mark down the grade of the defect which is indicated in log units on the Neutral Density Bar. Be careful of asymmetric bleaching of the retina which can occur after repeated testing. After several repetitions of the light source being shone onto the retina, the filters should be removed, and the light should be used to flash both eyes and equalize the bleaching. This causes both retinas to be in a constant and more or less equal state of light adaptation.

While using the filters, be sure to keep them pressed up and fully covering the eye to prevent light leaks. At 1.2 log units or more, peak around the filter bar while using it to better assess the dilation as it becomes difficult to see through the Neutral Density Bar.

Blotch marks may appear due to the interference phenomena when gel filters are in proximity with the plastic sheet causing air pockets. These marks do not affect the light transmission nor the effectiveness of the Neutral Density Bar. Blotch marks come and go with changes in temperature and humidity.

### Storage:

The Neutral Density Bar can be stored in the pouch in ambient temperature with no special storage conditions.

### Instructions for Reuse:

The device is reusable.

Clean with mild soap and water. Never use alcohol as it will put a hazing onto the bar.

This device is intended to be used by a medical professional for patient evaluation.

Any serious incident that has occurred in relation to this device should be reported to Gulden Ophthalmics and the competent authority of the Member State in which the user and/or patient is established in the EU.

## Instructions for Use: Neutral Density Bar (15118)

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### Intended Use:

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Blotch marks may appear due to the interference phenomena when gel filters are in proximity with the plastic sheet causing air pockets. These marks do not affect the light transmission nor the effectiveness of the Neutral Density Bar. Blotch marks come and go with changes in temperature and humidity.

### Storage:

The Neutral Density Bar w/ Case can be stored in the pouch in ambient temperature with no special storage conditions.

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