Ocular Reichel-Mainster 1X Retina Laser Lens Laser **Product** Static Dynamic Contact **Image** Lens Spot Code **FOV** FOV Mag Diam Height Mag Designed with: Elias Reichel, M.D., ORMR-1X 102° 133° .95x 1.05X 16.5mm 30mm Boston, MA Martin A. Mainster. *ORMR-1X-2 102° 133° 1.05X 29.5mm .95x 15mm Ph.D., M.D. Kansas City, KS **ORMR-1X-P 98° 126° 1.08x .93X 15mm 31mm $C \in$

Lens Design

- § The Reichel-Mainster 1X Retina Lens has superior optical resolution for detecting subtle fundus details such as retinal thickening and serous detachments.
- § Its high axial and lateral magnifications facilitate the diagnosis and treatment of macular and retinal vascular disorders.
- § Its broad field of view provides versatility for focal, grid and panretinal photocoagulation.
- § The Reichel-Mainster lens is ideal for transpupillary thermotherapy and photodynamic therapy and for treating choroidal neovascularization, diabetic retinopathy and retinal vascular occlusion.
- *No methylcellulose is required during routine eye examinations on the ORMR-1X-2 style.
- **Designed for use on pediatric patients and those with narrow palpebral fissures.

Technique

- § As with any indirect ophthalmoscopy contact lens, some time is needed to become familiar with the Reichel-Mainster retina lens. Suggestions for use are:
 - § Use the slit lamp with its illumination and observation arms lined up so that illumination and observation are parallel.
 - § Use a vertical slit beam with the illumination beam as narrow and short as possible to minimize back-scattered slit lamp light that can decrease image contrast.
 - § Use slit lamp magnification between 5x and 12x.
 - § Tilt the lens on the patient's cornea to select your viewing area and optimize image clarity and stereoscopic view.
 - § Keep the front surface of the lens perpendicular to the viewing axis and the laser beam.
 - § Have the patient turn their eye slightly for larger changes in viewing area location.
- § Since this lens presents an image in air rather than within the lens, the slit lamp must be moved further back from the patient's eye, as compared with conventional lenses. It is sometimes helpful to start by using the lowest slit lamp magnification with the lens centered in the field of view. Then move the slit lamp away from the patient until the image is acquired.
- § Restricted posterior movement of the older Zeiss 125 slit lamp requires the patient's forehead be moved backward from the headrest. This positioning may be achieved by placing a one inch thick sponge strip between the patient's forehead and the headrest.

RETINA LENS COMPARISON CHART										
Lens		PRP 165	Wide Field	PDT 1.6X	ProRetina 120 PB ⁽³⁾	Reichel- Mainster 1X		Pediatric Reichel- Mainster 1X	(Standard) Focal/ Grid ⁽⁴⁾	High Mag
Static Field of View		165°	118°	120°	120°	102°	117°	98°	90°	75°
Dynamic Field of View		180°	127°	133°	136°	133°	142°	126°	121°	88°
Image Magnification		.51x	.68x	.63x	.50x	.95x	.50x	1.08x	.96x	1.25x
Laser Spot Magnification Factor ⁽²⁾		1.96X	1.50X	1.60X	2.00X	1.05X	2.00X	.93X	1.05X	.80X
Retinal Disorder ⁽¹⁾	Procedure	+++ Optimal ++ Very useful + Useful - Not useful								
NVD, NVE or NVI	PRP, Clear Media	+++	++	++	++	++	++	++	+	1
NVD, NVE or NVI	PRP, Vitreous Hemorrhage	++	+++	+++	+++	++	+++	++	+	1
Macular Edema	Focal + Grid	+	+	+	+	+++	++	+++	+++	++
CNV in ARMD	Focal	ı	-	ı	-	+++	-	+++	+++	+++
or OHS	PDT, TTT	+	+++	+++	+	+++	+++	+++	+++	+++
Retinal Holes	Peripheral	+++	+	+	+	+	+	+	-	-
ROP	Peripheral	-	-	-	-	-	-	+++	-	-

- (1) NVD, NVE, NVI: neovascularization disc, retinal elsewhere, iris; CNV: choroidal neovascularization; ARMD: age-related macular degeneration; OHS: ocular histoplasmosis syndrome
- (2) Multiply the laser photocoagulator spot size setting by this magnification factor to calculate the retinal spot size produced by each lens. Note that "x" and "X" are used for image magnification and laser spot magnification, respectively.
- ⁽³⁾ The ProRetina's tubular design facilitates examination and treatment of patients with prominent brows. It also allows easy lens manipulation for examination and treatment of the retinal periphery.

(4) Focal/Grid is the new name for the Mainster Standard.

Cleaning and Disinfection

See Cleaning Method 1

