



**1 INDICATIONS**

- Advanced and end-stage glaucoma
- Contraindications to filtration surgery
- Intolerance to medication
- Palliative treatment or in case of surgery failure
- In preparation for another surgery requiring urgent intraocular pressure reduction.

**2 TREATMENT SETTINGS**

- Wavelength: 810nm
- Power level: **2W**
- Duty Cycle setting:
  - **31,3%** Duty Cycle: General cases  
*Patients with no history of severe ocular inflammation  
Absence of conjunctival or uveal active inflammation  
Absence of severe keratitis or corneal ulcer*
  - **25%** Duty Cycle: Particular cases  
*Patients already treated with thermal cyclophotocoagulation  
Patients with history of uveitis  
Presence of conjunctival inflammation or keratitis  
Patients with good visual acuity or moderated visual field defects*
- Total treatment duration: **160s**  
**40s per quadrant** (5s per sweep) **OR 80s per hemisphere** (10s per sweep)  
NB: In case of very high IOP (>30 mmHg), the total treatment duration can be increased. Nevertheless, it is important to not exceed a total treatment duration of 200 sec (50 sec per quadrant / 100 sec per hemisphere)



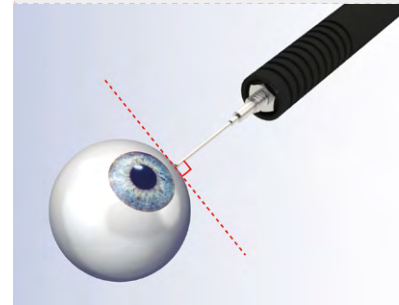
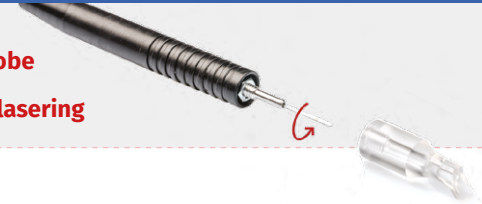
**3 PRE-TREATMENT**

- Use of eyelid speculum
- Ocular anesthesia: sub-tenon, peribulbar or retrobulbar block
- Location and marking of the ciliary body position:  
*Assess the ciliary body position thanks to the transscleral illumination technique and mark the treatment area thanks to a dermatographic pencil (when the transillumination technique is not available, the treatment area can be estimated at a 3mm distance posterior to the limbus).*



**4 TREATMENT: PROBE POSITIONING**

- >> **Before using the probe, unscrew the footplate carefully from probe**
- >> **Always wear laser safety goggles while lasering**

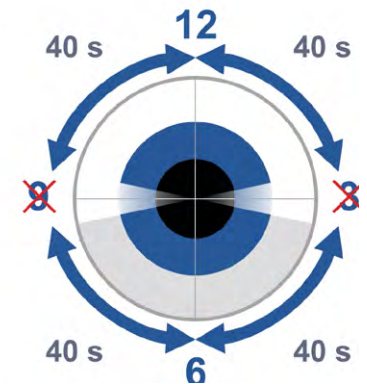


- Tip of the probe in contact with the sclera and positioned over the treatment area previously identified.
- Probe perpendicular to the eyeball.
- A viscous liquid / gel interface is needed to ensure a proper laser energy distribution.

Laser treatment delivered by moving the tip of the probe in a continuous sliding motion:

- **from 9:30 to 12:00 and from 12:00 to 2:30 (superior quadrants)**
- **from 3:30 to 6:00 and from 6:00 to 8:30 (inferior quadrants)**

The 3 and 9 o'clock meridians must be avoided.



**5 POST-TREATMENT**

- Local corticotherapy for 2 to 3 weeks
- Glaucoma drug treatment is continued and reassessed according to the IOP evolution

Refer to the **Vitra 810** user manual for detailed information on usage and safety measures.

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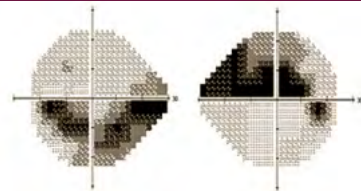
# GLAUCOMA TREATMENT: ThermoCyclo PROCEDURE

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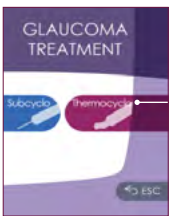


## 1 GLAUCOMA INDICATIONS

- Moderate, advanced and end-stage
- Congenital and refractory
- Post keratoplasty and Uveitic
- Post-vitreoretinal surgery
- Chronic angle closure
- Neovascular

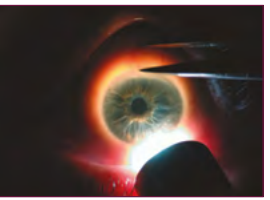


## 2 TREATMENT SETTINGS



Power level = 2 Watts  
Duration = 2 Seconds  
**NEVER exceed 2 Watts of power**

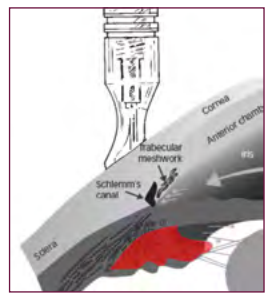
## 3 PRE TREATMENT



- Ocular anaesthesia: sub-tenon, peribulbar or retrobulbar block
- Use a lid speculum
- Define the treatment area using transscleral illumination to locate the position of the ciliary body prior to each laser pulse

## 4 TREATMENT: PROBE POSITIONING

• **Always wear appropriate laser safety glasses/ microscope filter**



- Use only the XLCYCLO probe with foot plate attached
- Where access to the palpebral fissure is difficult the foot plate may be removed
- A viscous liquid/gel interface is required. Reapply every four shots while inspecting the integrity of the probe
- The probe is held in contact with the sclera, parallel to the visual axis and perpendicular to the iris plane at the treatment area located through transscleral illumination
- The notch located on the footplate should be oriented towards the limbus

## 5 TREATMENT

- Apply 7 pulses per quadrant ALWAYS avoiding 3 & 9 o'clock
- **NEVER TREAT 360°** in one session
- IOP measured under maximal topical medical treatment – treatment as follows

**IOP: 20 mm Hg.**  
1 Quadrant Pattern

**IOP: 30 mm Hg.**  
2 Quadrants Pattern

**IOP: 40 to 50 mm Hg.**  
Smile Pattern

OD

OS

**IOP: 60 to 70 mm Hg.**  
3 Quadrants Pattern

Sparing a temporal quadrant

*N.B. An audible "pop" of ciliary destruction may be heard. This is normal, however, power may be titrated down in 100mW increments to eliminate the "popping" sound.*

## 6 POST TREATMENT

- Local corticotherapy for 2 to 3 weeks
- Glaucoma medications are continued and reassessed according to IOP evolution

*With permission  
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Highlights of Ophthalmology  
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Sampaolesi, Juan*

Refer to the Vitra 810 user manual for detailed information on usage and safety measures.  
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