WaveLink | Intelligent Cross-Linking

WaveLink Technical Specifications

Specification	Source configuration
Power monitoring	Automatic, integrated power-monitoring system
Operating interface	10.4-inch color LCD touchscreen with integrated CPU and cooling fan (all-in-one)
Pulse duration	Adjustable from 10 s to 30 min
Calibration	Automatic
Integrated power meter	Yes
Maximum output-power deviation	<10%
UV spot diameter	Continuously variable from 4 to 11 mm; optional 10-13 mm module
Treatment beam homogenization	Super-LED system with 4 LEDs and dual homogenization system
Working distance	55 mm
Aiming system for correct patient positioning	Two 670 nm red LEDs
Aiming-system power	<1.0 mW
Video system	Integrated CCD video camera
Mobile base	4 wheels with individual self-locks; adjustable mast height; pantographic arms with spring counterbalance system
Operating voltage	90-240 VAC, 50/60 Hz, automatic; optional 30-minute battery
Dimensions	130 cm (H) × 128 cm (W) × 40 cm (L), arms fully extended
Weight	48 kg
Input voltage	100-230 VAC, 50/60 Hz, single phase
Power	150 W
Fuse	T3.15AH250V @ 100-230 VAC
Temperature	Transport: -10 to 70 °C; operation: 15 to 30 °C; storage: -10 to 55 °C
Working humidity	Operation: 30%-85%, noncondensing; storage and operation: up to 95%, noncondensing (both operating entries printed in source)
Atmospheric pressure	Operation: 800-1060 mbar; transport and storage: 500-1060 mbar
Cooling	Air

Riboflavin Technical Specifications

Product	Source formulation and presentation
Collagex - ISOTONIC	Riboflavin S-phosphate (0.1%) + 20% dextran T500 in a 3 mL syringe
Collagex - HYPOTONIC	Riboflavin S-phosphate (0.1%), without dextran, in a 1 mL syringe
Collagex - TE	Transepithelial riboflavin in 1 mL and 3 mL syringes

Source configuration note: the brochure separately lists 90-240 VAC operating voltage and 100-230 VAC input voltage; neither is silently substituted for the other. Its technical table describes two red LEDs for aiming, while its feature text describes a laser alignment system. These source descriptions remain unresolved.

The brochure prints “S-phosphate”; this source spelling is retained without inferring a chemical correction.



Dimension illustration: width 40 cm; extended-arm span 128 cm; height 130 cm.

Distributors: contact EVOptica.

EVOptica

EVOptica | evoptica.com | contact@evoptica.com
+1-315-210-8976 (call/text) | 221 S Main St, Fairport, NY 14450, USA

wavelink®
Intelligent Cross-Linking



EVOptica

Corneal Cross-Linking with WaveLink®

Corneal cross-linking using riboflavin and UV light has been applied since research began in Germany in the 2000s. Cross-linking involves applying liquid riboflavin (vitamin B) solution to the eye, then activating it with UV irradiation for periods ranging from 3 to 30 minutes. Activated riboflavin causes adjacent collagen strands to form new molecular bonds that restore and preserve the cornea's mechanical strength. The epithelium is normally removed (epithelium-off) to improve riboflavin penetration, although procedures without removal (epithelium-on) also exist.

The original brochure describes the technique as modern and effective, primarily indicated for keratoconus and other corneal ectasias, including certain post-LASIK cases. WaveLink was conceived and developed by the original manufacturer in partnership with a California company and introduced and manufactured in Brazil. Contact EVOptica for current warranty and service terms.



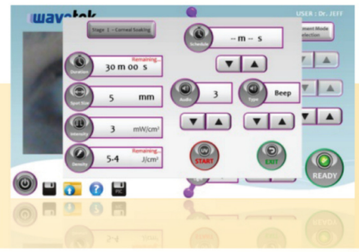
Integrated Touchscreen Computer and Modern, Easy-to-Use Software

WaveLink uses an all-in-one computer integrated into the monitor to control the system. The touchscreen eliminates the need for a keyboard or mouse, and WaveLink software runs in Windows. Its features include:

- Live image of the patient's eye throughout the procedure.
- Several treatment types with different times and powers, all limited in the original brochure to 5.4 J/cm².
- Programmable soaking time - riboflavin application and absorption.
- Examination export as a file.
- Video recording and video-file export.



Front view of the all-in-one touchscreen PC. On/off, contrast/brightness and volume controls are on the front panel. The screen shows time/power presets.



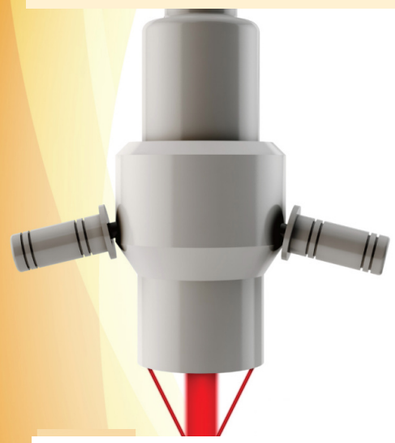
Soaking configuration screen - riboflavin application and absorption into the stroma - where the physician can choose UV-radiation pauses for riboflavin application.



Touch keyboard showing patient registration; treatment records can subsequently be exported.



Articulated rear support for the WaveLink computer allows positioning for user comfort.



Optical diagram captions: Adjustable beam diameter; Eye-alignment beams; Eye. Lower CCD view with automatic focus adjustment.

Advanced Optics

- High-resolution color CCD camera with autofocus for live images of the patient's eye, maintained in focus.
- Power-adjustable laser alignment system for quick, easy positioning of the optics at the eye.
- Fixation LED to help the patient maintain position throughout procedures lasting up to 30 minutes.
- Computerized UV-beam diameter adjustment from 4 mm to 11 mm.

Dedicated Riboflavin and Efficient Workflow



WaveLink procedures are easy to program and perform, with robust, reliable software and hardware. Its efficiency supports clinical workflow and procedure scheduling. Each procedure can be adjusted from 3 to 30 minutes, allowing treatment flexibility and advance scheduling of the appropriate number of patients per session. The riboflavin used with WaveLink was developed for its characteristics and was marketed by the original manufacturer.

Articulated Head

- Handles on the optical head allow easy positioning.
- Articulated arms allow free spatial movement with a counterweight and spring system to counterbalance the load.



Safety Controls

- Interlock.
- Emergency button that switches off the entire system.
- Safety key allowing use by authorized persons only.

Height-Adjustable Support Table

Support table moves up and down.

Mobile Base

- Wheels with locking system.
- Electrical components, including power supply and transformers, enclosed within the base.
- Handrail system to facilitate moving the base.

Modern Design, Safety and Ease of Handling

WaveLink combines cross-linking system functions with modern, ergonomic design. The UV source is integrated with the video system, supplied as standard rather than as an option. Illustrated features include: