

# Laryngograph LxStrobe3 for Video Stroboscopy

Laryngograph®  
*Lx*

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## **Introduction to LxStrobe3**

Laryngograph's LxStrobe3 is a state of the art, computerised digital videostroboscopic system from Laryngograph Ltd. It is designed and constructed on the basis of the latest advances in four technology domains: flashing xenon lamp; 3 CCD digital video camera; computerised digital video; and digital signal processing. It gives voice clinicians very sharp, bright video images. In these combined respects it provides full quantitative support for evidence-based evaluation. Clinicians can gradually build up a complete Precision Stroboscopy system because it is designed as a modular system.

## **Main Features and Benefits**

Our precision Stroboscopy systems also have many advanced operational features, some of which are unique. These features provide clinicians with significant contributions to their daily work and distinguish LxStrobe3 from other stroboscopic products. Some of the features are:

- Precise extraction of larynx frequency
- Precise flashing of the light source
- Precise positioning of flash markers on Lx
- Intense, extremely short flashes of light at 50/60 Hz
- Variable light output to enable high quality images with rigid or flexible laryngoscopes
- Mega-pixel resolution of 3 CCD cameras
- Foot pedal control for video capture and to mark interesting sections
- Digital recording to computer hard drives
- Multiple ways of comparing pre- and post- treatment recordings
- Video fidelity and pitch variance measurement of stroboscopic sequences
- Archiving clinical recordings by patient sessions
- Quick retrieval of previous recordings
- Easy ways of writing clinical notes linked to the images
- Snapshot mode to 'grab and print' 1, 2 or 4 image(s)

Major benefits of Laryngograph Precision Stroboscopy are:

- Sharp, bright, and high resolution video images help to reveal tiny details.
- Automatic following of voicing allows capture of a complete stroboscopic motion cycle possible within approximately a second of sustained phonation.
- Smooth stroboscopic slow motion sequences show clear mucosal wave.
- Side-by-side phase synchronized displays of pre- and post- treatment recordings help identify the effects of treatment.
- Foot pedal control of video capture allows hands free use of endoscopes.
- Fidelity and pitch variance indicate the extent to which stroboscopic sequences are representative of the true underlying movement of the vocal folds.

## **Hardware Components**

- LxStrobe Xenon light source with variable intensity
- Laryngograph microProcessor for precision pitch extraction
- 3 CCD remote head camera
- rigid laryngoscope
- 3-pedal footswitch
- professional photo printer
- digital computer unit  
USB 2.0 DSP interface  
Broadcast standard framegrabber card  
DVD+RW drive
- secure mobile trolley

## **LxStrobe3 Software Components**

- generate flash triggers
- capture video to hard disk
- replay, edit and save recordings
- multiple image view
- animation of a vocal fold cycle
- montage view of a complete slow motion cycle
- side-by-side phase synchronized comparison of stroboscopic recordings
- write clinical notes
- generate print outs