

# ELKART II NAVIGATOR

**UNIVERSAL  
ELECTROPHYSIOLOGY SYSTEM**

**RADIOFREQUENCY ABLATION**

**ELECTRODES NAVIGATION**

**VISUALIZATION OF AUTOWAVE  
PROCESSES SPREADING  
IN MYOCARDIUM**



# ELKART II NAVIGATOR

- **Amplifier**
- **Integrated stimulator**
- **Invasive pressure module**
- **Radiofrequency generator**
- **ELKART NAVIGATOR**

## EXCELLENT SIGNAL QUALITY

ELKART II offers high-quality registration of 12-lead ECG and up to **192 intracardiac channels** recording, including signal from ablation electrode during RF application.

### ELKART amplifiers:

- Low-pass filter.....10-1000 Hz
- High-pass filter..ECG - 0.05, 0.1, 0.15, 0.2, 0.4 Hz  
.....intracardiac EG - 25, 50, 75, 100 Hz
- Notch filter.....50 (60) Hz
- Sweep speed...25, 50, 100, 200,400, 800, 1600 mm/sec
- Sampling Rate.....2000 - 6000 Hz
- ADC (analog-to-digital converter).....16bits

## UNIVERSAL RF ABLATION

- Powerful but safe RF generator ELECTROPULSE RF-100TI controlled through integrated ELKART II system software allows control and display of all ablation parameters (power, temperature, impedance, time) on the system screen.
- Universal RF generator is compatible with most ablation catheters with thermistor and thermocouple by different manufacturers.
- RF generator output - 100W.

### RF generator modes:

- Automatic maintenance of active electrode fixed temperature.
- Automatic maintenance of active electrode fixed output power.
- Manual control of output power.

## UNMATCHED EASE OF USE

- All system components are easily controlled by Windows XP® based software. User-friendly graphical interface enables quick access to desired information and switch between display configurations while study is in progress.
- Flexible automatization of the process of study and therapy: continuous record during the whole study with events marks (pacing, ablation, arrhythmia occurrence); user's marks creation; automatic updating of pacing parameters, emergency situation indication and automatic remedial measures.
- Two monitors allow analysis of ECG and intracardiac electrograms in real time simultaneously with new data displaying. When necessary - print out any study episode.
- The integrated database makes it easy to manage data of multiple patients' studies; has excellent capabilities for detailing patient information and delivering clinical and electrophysiological reports during and at the end of the study; allows archiving of electrophysiological data to CD, DVD or optical disks.
- The system can be connected to a hospital local network to provide remote access to the patients' database.

## INTEGRATED STIMULATOR

- The stimulator is embedded in the amplifier module and is controlled through integrated ELKART software interface ensuring unmatched flexibility, safety and control of stimulator functions.
- Electronic commutation to any pair of electrode poles or to external output.
- 4 fully programmable "virtual" outputs with prestored mode, parameters of stimulation and electrode contacts. On-line switching between outputs in the process of work.
- Connection of backup stimulator to electronic commutator.
- **Pacing modes:**
  - Asynchronous.....0 to 2000 ppm
  - Demand
  - Incremental.....(up to 2000 ppm)
  - Decremental
  - Programmed asynchronous.....(1-3 extra stimuli with 0-999 msec delay)
  - Programmed synchronous.....(1-3 extra stimuli with 0-999 msec delay)

## ELKART NAVIGATOR

A new powerful tool for enhanced potentialities of diagnosis and mapping of different genesis arrhythmias.

- Real-time electrodes positioning and movement during EP study and RF ablation.
- 3D electroanatomical reconstruction of heart chambers.
- Visualization of autowave processes spreading in myocardium.
- Significantly reduced X-ray exposure and time of operation.
- Use of conventional endocardial catheters. No special catheters required.