Pathfinder SL

Speed. Accuracy. Exploration.

Pathfinder SL represents the evolution of over 40 years of technology, design, algorithm development and experience in the analysis of ambulatory ECG recordings.

Our experience has taught us that our customers need speed, accuracy and control, with a high degree of visibility and confidence in the analysis and reporting process.

Pathfinder SL converges and enhances the best features and capabilities of a range of products, including our legacy Holter systems, into one seamless analysis solution to enable the comprehensive exploration of a patient’s cardiac condition.

ST Analysis
- 7-Day ST segment analysis including action replay and measurement point adjustments.
- 13 lead Holter ST analysis including lead selection and elevation/deviation color mapping.

12 Lead Analysis
- Selectable tools for analysis.
- 13 Lead ECG snapshot at any period.
- Full Glasgow algorithm 12 lead ECG interpretation on 13 lead ECGs.

HRV Analysis
- Pathfinder SL’s trigger algorithm and user sensitivity controls enable the system to precisely trigger on R-wave’s even in the presence of noise.
- 7-day HRV analysis with multiple views of rates and rhythms available including the arrhythmia graph.

QT Analysis
- QT trend graphs and tables.
- QT measurement adjustment markers.
- QT or QTc measurements.

Pacing Analysis
- Atrial and ventricular paced beat detection with pacing tools.
- Paced beat histograms, scatter plots and relationship diagrams for rapid identification of pacing function.
- Pacing rate control graphs with day/night and overall comparisons.

ST Analysis
- 7-Day ST segment analysis including action replay and measurement point adjustments.
- 13 lead Holter ST analysis including lead selection and elevation/deviation color mapping.

12 Lead Analysis
- Selectable tools for analysis.
- 13 Lead ECG snapshot at any period.
- Full Glasgow algorithm 12 lead ECG interpretation on 13 lead ECGs.

HRV Analysis
- Pathfinder SL’s trigger algorithm and user sensitivity controls enable the system to precisely trigger on R-wave’s even in the presence of noise.
- 7-day HRV analysis with multiple views of rates and rhythms available including the arrhythmia graph.

QT Analysis
- QT trend graphs and tables.
- QT measurement adjustment markers.
- QT or QTc measurements.

Pacing Analysis
- Atrial and ventricular paced beat detection with pacing tools.
- Paced beat histograms, scatter plots and relationship diagrams for rapid identification of pacing function.
- Pacing rate control graphs with day/night and overall comparisons.
Pathfinder SL features an advanced multi-layer analysis algorithm incorporating:
- Multi-Channel Analysis
- Dynamic Pattern Matching Algorithm
- Beat Morphology Analysis
- Dynamic Artifact Rejection
- Trigger and Noise Sensitivity Controls
- Beat Shape Learning
- Prospective and Real Time re-analysis

The result of this in an analysis process that provides rapid and accurate results even in the most complex, noisy or variable recordings.

Pathfinder SL has an intelligent analysis engine that analyzes the ECG waveform and beat shapes. Accuracy is further enhanced by the addition of multiple levels of dynamic pattern matching technologies, that results in analysis to a depth never seen before.

Pathfinder SL’s dynamic-pattern matching algorithms add the operator to identify the differencess between analysis and beats even within periods of noisy ECG and highlight subtle shape changes in the ECG.

The flexible workflow and configurability of Pathfinder SL allows the operator to control the analysis in a way that suits their preference.

Clean simple ECG recordings can be quickly analyzed and reports generated within minutes. More complex recordings with multiple Atrial and Ventricular rhythms can be analyzed using a range of more advanced tools.

**Analysis Efficiency**

**Algorithm**
Pathfinder SL has an intelligent analysis engine that analyzes the ECG waveform and beat shapes. Accuracy is further enhanced by the addition of multiple levels of dynamic pattern matching technologies, that result in analysis to a depth never seen before.

Pathfinder SL’s dynamic-pattern matching algorithms add the operator to identify the differencess between analysis and beats even within periods of noisy ECG and highlight subtle shape changes in the ECG.

**Flexibility**

The flexible workflow and configurability of Pathfinder SL allows the operator to control the analysis in a way that suits their preference.

Clean simple ECG recordings can be quickly analyzed and reports generated within minutes. More complex recordings with multiple Atrial and Ventricular rhythms can be analyzed using a range of more advanced tools.

Pathfinder SL’s interface provides a simple and flexible workflow that enables the user to quickly navigate to information that they need.

- All screens, tables and graphs are synchronized to enable an event or beat, to be quickly viewed across a range of different views with full zoom capabilities.
- Screen icons and controls are arranged in an intuitive way to guide the user through the analysis workflow.

**Multi Screens**

- Pathfinder SL’s optional dual screen configuration allows independent parallel views of ECG, graphs, trends or tables increasing the efficiency of use.
- Click an ECG in one screen and see corresponding views or graphs in another!
- Add comments or view real time reports in the second screen while editing in the first!
- User configurable screen, zoom level and views even when scanning.

**Morphology Analysis**

- Pathfinder SL provides the user with a new level of morphology, analysis and simple control within beat classifications.
- The morphology displays and interactive tools provide the operator with information and control to quickly group or detail individual beat morphology’s as required.
- Pathfinder SL’s algorithm also assists the user to search and group or separate subtle changes in morpologiges.
- The level of detail provides clinicians with additional information to interpret the foci of the beats and determine more specific treatment regimes or investigations.

**7 Day Analysis**

- Pathfinder SL offers a significant advancement in the capabilities of Holter by providing full analysis not only for the traditional 24 hours, but now up to a full 7 days of continuous recording, in one analysis process, and one report.
- Pathfinder SL’s algorithm is designed to quickly handle the hundreds of thousands of beats seen over a 7 day recording.
- The display will provide a comprehensive report of ECG events and morphologies over the 7 days period.
- Pathfinder SL offers 7 day analysis of all events (except chest leads), 97% of all time, and QT analysis in a window of opportunity to capture any gradually significant events.

**Guided Scanning**

- Pathfinder SL’s guided scanning mode can be easily and quickly adapted to automatically step and guide the user to beat shape changes or events occurring by recording basis.
- For more experienced operators this feature provides a helping hand to ensure that operators see and quickly adapt to automatically stop and guide the user to beat shape changes or events occurring by recording basis.
- For more experienced users the configurable guidance allows prospective control of the analysis process.

**Sleep Analysis**

- The Sleep Apnea analysis option for Pathfinder SL determines sleep apnoea periods from the standard Holter recording.
- Pathfinder SL derives the respiratory waveform from the ECG signal amplitude changes, analyzes the changes in the RR interval associated with respiration and sleep scores, along with the power spectral frequencies of heart rate variability.
- A correlated AHI is then produced with supporting graphs and trends.
- This can be for one sleep period or multiple sleep periods if a 7-day recording is analyzed.

**Interface**

Pathfinder SL’s interface provides a simple and flexible workflow that enables the user to quickly navigate to information that they need.

- All screens, tables and graphs are synchronized to enable an event or beat, to be quickly viewed across a range of different views with full zoom capabilities.
- Screen icons and controls are arranged in an intuitive way to guide the user through the analysis workflow.

**7 Day Analysis**

- Pathfinder SL offers a significant advancement in the capabilities of Holter by providing full analysis not only for the traditional 24 hours, but now up to a full 7 days of continuous recording, in one analysis process, and one report.
- Pathfinder SL’s algorithm is designed to quickly handle the hundreds of thousands of beats seen over a 7 day recording.
- The display will provide a comprehensive report of ECG events and morphologies over the 7 days period.
- Pathfinder SL offers 7 day analysis of all events (except chest leads), 97% of all time, and QT analysis in a window of opportunity to capture any gradually significant events.

**Guided Scanning**

- Pathfinder SL’s guided scanning mode can be easily and quickly adapted to automatically step and guide the user to beat shape changes or events occurring by recording basis.
- For more experienced operators this feature provides a helping hand to ensure that operators see and quickly adapt to automatically stop and guide the user to beat shape changes or events occurring by recording basis.
- For more experienced users the configurable guidance allows prospective control of the analysis process.

**Sleep Analysis**

- The Sleep Apnea analysis option for Pathfinder SL determines sleep apnoea periods from the standard Holter recording.
- Pathfinder SL derives the respiratory waveform from the ECG signal amplitude changes, analyzes the changes in the RR interval associated with respiration and sleep scores, along with the power spectral frequencies of heart rate variability.
- A correlated AHI is then produced with supporting graphs and trends.
- This can be for one sleep period or multiple sleep periods if a 7-day recording is analyzed.