

106 Main Street  
Odessa, ON  
K0H 2H0  
Canada  
[sales@limestonetech.com](mailto:sales@limestonetech.com)

## Polygraph Professional Suite Fact Sheet and Exclusive Features

### 1 – Polygraph Professional Suite Silver Package

#### Polygraph Professional Suite™

Polygraph Professional Suite™ unlimited use software license  
1 16-bit DataPac\_USB™ 8 channel data acquisition system  
2 respiration pneumatic transducers  
1 complete set of EDA electrodes. Includes both traditional metal and wet-gel electrodes  
1 package of 100 disposable wet-gel EDA electrodes  
1 pneumatic Blood Pressure Cuff complete with palm sphygmomanometer  
1 StingRay SE™ piezo countermeasure cushion  
1 exclusive Limestone FingerCuff™ An alternative to the Blood Pressure Cuff  
1 User's manual as well as an upgradeable software manual  
1 CD-ROM that includes Visual Tutorials. Step-by-step, how to use your new polygraph  
1 Rank Order Scoring Algorithm  
1 OSS 1, 2, and 3 scoring algorithm, courtesy of Donald Krapohl and Barry McManus  
1 deluxe Pelican Instrument Case with set of padded adjustable dividers  
1 year Total Maintenance Agreement (24/7 access to our secure online server)  
3 year DataPac replacement warranty through overnight courier service (customers cost)  
Lifetime access to our online knowledge base and self help services  
Limestone's automatic measurement tools and RANK Order Scoring utilities  
complementary mouse pad and polygraph office accessories

### 2 – DataPac\_USB Instrumentation

- Three year, immediate, replacement warranty.
- Case is available in black only
- USB host interface (no power supply required) USB-IF certified
- Meets IEC61000-4-2 Electrostatic Discharge protection for USB port
- FDA, US Food and Drug Administration approved connectors and instrumentation
- All channels provide optical isolation to 3500Volts
- Compact size. ( Dimensions, 5.1" X 2.8 X 1.0") weight 400 grams

Limestone Technologies' DataPac\_USB, is fully compliant with ASTM Standards Committee, E52 (06-02). This committee oversees and sets the standards for polygraph instrumentation  
<http://www.astm.org/cgi-bin/SoftCart.exe/index.shtml?L+mystore+cleg7740>

## DataPac\_USB 8 Channel Instrument, High Resolution 16 bit A/D Instrumentation

- Pneumatic respiration input. Operating range 0 – 50KPA
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- Pneumatic Blood Pressure Cuff input. Operating range 0 – 50KPA
- Pneumatic countermeasure or FingerCuff input
- Electronic piezo countermeasure input
- EDA, Constant Voltage, Operating range 22K – 9.0 MegaOhms
- PLE or photo-plethysmograph cardio ear-clip input
- Precision skin temperature input. Resistance 1200 ohms @ 40 C

### 3- Sensors and inputs:

The system includes all of the traditional polygraph transducers.

Accessory electrodes are as follows:

- PLE Ear-clip (photo-plethysmograph)
- Skin Temperature Thermistor.
- Pneumatic Countermeasure cushion
- Two Respiration pneumatic transducers.
- 1 Blood Pressure Cuff.
- 1 FingerCuff™ Assembly (exclusive to Limestone Technologies Inc.)
- 1 EDA Electrode Kit (8 foot lead, Metal and Wet-Gel connectors, 100 wet-gel electrodes)
- 1 Piezo countermeasure cushion (support for multiple cushions)

### 4- Data Acquisition: Resolution, speed, filters of signal.

Instrument uses a 16 bit analog to digital conversion, 25 - 50 samples per second on all channels. Minimal low pass filtering is a benefit of the 16 bit high resolution A/D conversion and Sigma Delta sampling technology used with our instrumentation.

### 5- Calibration Routines

All channels are automatically self calibrated to ensure a linear and precise measurement. The only exception is the Blood Pressure channel. A software calibration utility is incorporated into the software for this specific channel. Limestone Technologies does recommend recalibrating the blood pressure channel if the instrument is being moved to different atmospheric pressures.

### 6- Operating System Software

Microsoft Windows XP, 2000 or Vista. Software Installation requires 40 megabytes of disk space.

### 7- Recommended Computer Specifications

#### Laptop Computer

Windows XP, 2000, or VISTA  
3 gig or higher CPU  
320 GB or more Hard Drive  
3 GB bytes RAM  
128 MBbyte video card  
6 USB ports  
On board Sound Card and Speakers  
CD / DVD Burner  
Video resolution 1024x768 or greater

#### Desktop Computer

Windows XP, 2000, or VISTA  
3.0 gig or higher CPU  
320 GB or more Hard Drive  
3 GBabytes RAM  
128 megabyte video card  
7 USB ports  
Sound Card and Speakers  
CD / DVD Burner  
Video resolution 1024x768 or greater

### 8 -Audio Video Recording Support

Any USB or Firewire camera. Composite can be included if desired. Our audio/video recording software is fully integrated into Polygraph Professional Suite. We do not use OEM software that we cannot support.

## 9 - Printing support

Our system supports all of the Pentax Thermal printers for portable real-time, continuous printing. Continuous printing is also possible with the Epson "C" series printers. Cut-sheet and banner printing is available for most Windows printers. You can also print to jpg. or pdf.

## 10 - User Manuals and Visual Tutorials

Polygraph Professional Suite includes a hardcopy user's manual as well as an upgradeable software manual. Our included video library of virtual tutorials on CD-ROM makes it easy to learn how to use your Limestone polygraph.

## 11 - After Sales Support

Limestone Technologies Inc. has built its reputation on excellent after sales customer support. We offer 24/7 online support and secure online access to our quarterly software updates. Our clients are provided with a userid and password to our secure online server that provides access to self help and software updates.

## Other features to consider...

### FingerCuff™

Limestone Technologies' FingerCuff™ is capable of producing an exact measurement of blood volume changes without any discomfort to the examinee. Record and display the FingerCuff™ and traditional Blood Pressure Cuff physiology at the same time. Limestone Technologies is the first company to offer a FingerCuff that provides results with digital polygraph instrumentation.

### ChartStacker™

Limestone Technologies' ChartStacker™ is a software utility that allows examiners to conveniently stack their polygraph charts simultaneously for direct analysis. ChartStacker™ is the ultimate global scoring tool. Our chart analysis innovation makes global scoring easier than ever. Obtain relevant information at a glance.

### Software Scoring Algorithms

Polygraph Professional Suite™ includes the following scoring algorithms:

- Rank Order Scoring System (RSS)
- Objective Scoring System 1, 2, and 3 courtesy of Donald Krapohl and Barry McManus
- CIT and GKT Scoring System

### Color Coded Question Types

Limestone Technologies' Polygraph Professional Suite™ makes it easy to identify question types with our easy to read Chart Annotations. Clearly classify question types with our improved chart marking technique.

## Exclusive features offered only by Limestone Technologies Inc.

### ChartSync+™

Limestone Technologies' ChartSync+™ utility now incorporates the latest Windows Media video and audio formats for a perfect balance of compression and quality. Complete polygraph interview audio/video can be synchronized to the examinee's physiology over multiple videos or even across multiple audio recordings. With our new streamlined recording process examiners can concentrate on the test, not the software. Limestone Technologies' was the first company to offer fully integrated audio/video recording using a USB camera.

### Present Audio and/or Visual stimulus

Polygraph Professional Suite fully integrates the ability to combine Audio and/or Visual stimulus into the polygraph examination. Audio and visual stimuli can be easily added and controlled using our QuestionEditor. Images are displayed to the examinee via a secondary display that supports all of the following video interface options: SVGA, SVideo, Composite, DVI. Limestone Technologies' is the first polygraph vendor to offer this unique feature.

### CIT and GKT formats

Limestone Technologies recognizes tremendous value for this test methodology. We have included everything examiners require to effectively use this well published and scientifically validated test format. Exam templates and automatic scoring tools are fully integrated into our software.

### **Automatic Measurement Feature**

This time saving utility measures the examinee's physiological responses with the click of a button. Precision measurements can be automatically calculated and marked on the chart for you. Now you can quickly measure and record physiology from question onset, offset or response. Measurement variables include amplitude, cardio amplitude or line length. Record results in imperial or metric units directly on the chart. Make your manual scoring seem effortless.

### **Superior Chart Plotting Controls**

Limestone Technologies' powerful ChartRecorder software utilizes our two-dimensional charting component providing the industry's best interface for viewing real-time physiology.

1). Annotation control; visibility, position and background color are easily configured 2). Powerful graph time control; review an earlier event while still recording an exam 3). Plot speed controls; 5, 10 & 15 sec/in. 4). Plot up to 10 channels simultaneously. More than any other polygraph on the market! 5). Add sticky notes to chart, change channel sensitivity, line thickness, etc, at anytime 6). A visual question timer that can optionally force pre-defined question times 7). Easy to read chart annotations. Customization controls that put the examiner in charge 8). Full featured grid spacing controls; On/Off, ¼", ½", 1"

### **Fully integrated CDR/DVD recording tools**

Limestone Technologies' is the only polygraph vendor that offers CDR/DVD software controls that are completely integrated into the Polygraph Professional Suite software. The other polygraph vendors rely on third party software solutions to complete this task and these utilities are not integrated into their polygraph software. We support what we create.

### **Automatic Report Writing Templates**

Polygraph Professional Suite™ makes report writing easy; you can automatically fill your customized report templates with all of the relevant polygraph exam information. Examine details, date, time, fingerprints, exam type, questions used, conclusions and summary. This software utility helps you to make your report writing efficient by providing a consistent and clear standardized report style that can be easily customized to your organization.

### **Thermal Skin Temperature Channel**

Limestone Technologies' is the only polygraph vendor that offers the ability to measure skin temperature changes using our exclusive thermistor transducer.

### **More Counter Measure Options**

Limestone Technologies provides inputs that allow examiners to display and record both pneumatic and piezo countermeasures. Limestone Technologies Inc. is the only polygraph vendor that offers the ability to simultaneously display and record both pneumatic and piezo countermeasure channels.

### **Multi-Language Platform**

Polygraph Professional Suite software supports a multi language platform. Special attention has been given to ensure that our software can be made available in several languages without requiring any additional CDs or software versions. Our clients can select their desired language at installation and the software will install appropriately. The software is currently available in English, Spanish and French. The ability to switch between languages after Polygraph Professional Suite™ has been installed is exclusive to Limestone Technologies Inc.

### **Advanced File Transfer Utilities**

Polygraph Professional Suite includes software controls that allow the examiner to directly upload all exam information, including charts, exam questions, chart data, etc. directly to our support team or optionally to their own defined server. This exclusive feature can assist examiners with faster diagnoses of any problems they may encounter in the field or it can also be used to improve quality control in their network or organization. Limestone Technologies' is the first polygraph vendor to offer internet File Transfer utilities.

### **Open Data Format**

Limestone Technologies provides complete access to all of the raw data collected during the polygraph examination. This is available in a convenient comma-delimited file that can be exported to Excel, Word, SAS, etc. Limestone Technologies Inc. is the first and only polygraph vendor with an open data format. All of the other polygraph vendors hide their data in a proprietary format that is not revealed. This proprietary approach makes validation of data collection impossible and impedes valuable research opportunities.