California
501 Park Way
Mill Valley, California 94941
Telephone: (415) 383-0570
Facsimile: (415) 358-4340

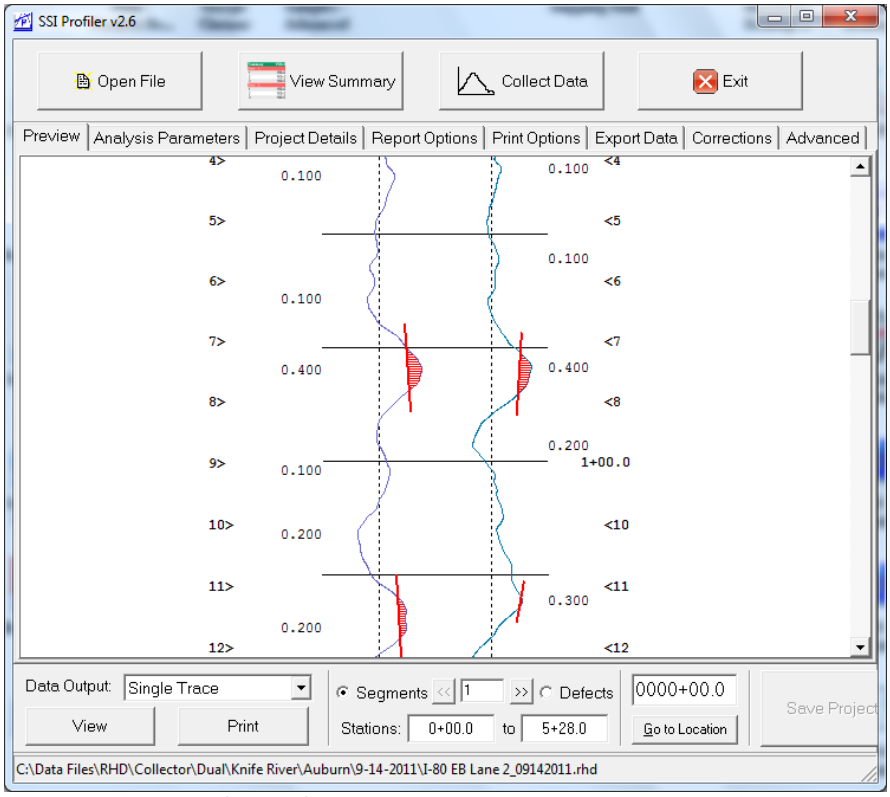
Kansas
307 Plymate
Manhattan, Kansas 66502
Telephone: (785) 539-6305
Facsimile: (415) 358-4340

SURFACE SYSTEMS & INSTRUMENTS, INC.

www.smoothroad.com

Custom Test Equipment • Mobile Technology Solutions

CS8800 WALKING PROFILER



▲Easy Software for Calibration, Collection and Analysis▲
▲Immediate Road and Floor Test Results (IRI, PRI, FF/FL)▲
▲Localized Roughness Detected with Exact Dimensions▲
▲Multiple Data Formats Supported (ERD/PPF for ProVal, PDF and Excel)▲

▲Multiple Sensors for Precise Profile Measurement▲
▲One-Inch (25mm) Sampling Interval▲

Precision Device for Measuring Pavement Smoothness and Floor Flatness

▲Front Lever Captures Short Wave Features▲

Panasonic TOUGHBOOK

▲Rugged Computer▲

▲Reusable Container for Shipping and Storage▲

CS8800 WALKING PROFILER

HARDWARE FEATURES	SOFTWARE FEATURES
•Proven 99% repeatable data on multiple same surface test runs. •Sampling Interval: 1”/25.4 mm default (equivalent to ASTM E950 Class I equivalent profiling device). Adjustable (.25”-6”; 6.35 -150 mm). •Guaranteed compliance with agency specifications and test methods.	•Reports IRI, MRI, HRI, PRI, RN, and Localized Roughness (with adjustable bump and dip templates). • Floor Flatness/Levelness. •Outputs longitudinal profile, elevation data, slope, simulated profilograph, raw strip trace, ERD/PPF (for ProVal), and PRO formats.
•Modular, portable design: all core electronic and sensor components smaller than Toughbook operator interface computer. •Core components field installable and can ship express.	•Instant test results and viewing of profile traces and reports. •Feature rich Windows software programs for calibration, data collection and analysis.
•Current model Panasonic Toughbook 19 military specification notebook computer with daylight readable Touchscreen controls. •Professionally engineered, self-balancing frame. •Assembles in minutes (by attaching handle and computer). •Entire system fits in reusable container for storage and shipping.	•Multiple trace reporting allows cross-surface analysis of parallel profile traces (patented by SSI). •Append data to existing files for comparison of original surface condition with corrected surface. •On-Screen user’s manual and instructions for software operation.
•Multiple sensor inputs (encoders/inclinometers) processed with SSI proprietary collection electronics and filtering methods for best profile. •Bi-directional collection and reporting of multiple profile traces on a single report (patented technique for transverse surface evaluation).	•Profile reports and traces available on-screen, in PDF images, Excel (templates supplied), hard copy print out, or electronic formats. •Colorized traces and highlights of bonus/penalty profile areas. •Encrypted raw data for infinite reanalysis with variable parameters
•Extended capacity battery for full day (>10 hours) of testing. •Buy or Rent. •On-site customer training and support worldwide.	•Software updates by self-executing internet download. •Real time diagnostics monitor system health and ease support.
•GPS subsystem with real-time display of GPS position, correlation of GPS with profile stations, and Google Earth visualization (optional). •Survey option (merges CS8800 with corrected GPS or total stations). •Texture measurement option with lateral scanning laser.	•Data infinitely rewritable with variable analysis parameters (English or Metric units, profile indexes, data filters, localized roughness). •Desktop license supplied for viewing, analyzing, printing and emailing of CS8800 data using SSI Profiler software.

TECHNICAL SPECIFICATIONS*	
•Device Classification/Rating	•ASTM E950 Class I equivalent. •World Bank Standard—Class 1 profiling device.
•Test Results and Data Outputs	•IRI, MRI, HRI, PRI, RN, CA Bridge, Variable localized roughness templates. PDF, Excel, ERD/PPF and raw strip trace formats. Floor Flatness/Floor Levelness.
•Localized Roughness	•Dimensions of bumps/dips measured with maximum amplitude of peaks and troughs calculated. Variable template for measuring defects with straightedge, profilograph, or relative profile methods
•Measurement Units	•English/Metric (variable, re-writeable).
•Operating Speed	•0.0– 3.0 mph (0-5 kph) (slower speed required for best results on rougher or coarse surfaces.)
•Sampling Interval	•Default = 1 inch (25.4 mm). Alternate sampling intervals configurable.
•Profile Accuracy	•±0.381 mm (±0.015 inch) per 45.7 meters (50 yards).
•Height Measurement Precision •Grade Measurement Resolution	•±0.0025mm (±0001 inch) per 254 mm (12 inch) wheel-base. •1 in 4.7 or 12 degrees.
•Longitudinal (Distance) Resolution	•+/- .025%.
•Power Supply	•Main system battery: extended capacity 12V Lithium Ion battery. Notebook PC runs on CS8800 main battery or separately on internal battery. Estimated battery life designed to 12-16 hours.
•Weight	•~40 lb/18 kg (without Toughbook computer, battery, accessories or carrying case).
•Dimensions	•34.5” (L) x 18.0” (W) x 12.125” (H) [collapsed, 36.5” with handle extended).
•Environmental	•Operating Temperature: 15 -140°F (-10 to 60°C). Storage: -50-170°F (-30-75°C).
•Data Collection Electronics	•SSI proprietary embedded microprocessor based electronics architecture (ISO 9001 fabricated).
•Operator Computer	•Panasonic Toughbook 19 military specification notebook PC with touchscreen controls.
•Operating System	•MS Windows 7 Professional operating system. •SSI built Windows software for calibration, data collection and feature rich data analysis/reporting.
•Data Storage	•Typical notebook hard drive (160-320GB) stores >200000 miles (320000 km) of profile data. Raw data files are transferable through portable storage media or email attachment.
•Data Format	•SSI proprietary encrypted format. Export routines (supplied) for ERD/PPF (for ProVal), PDF or Excel.
•Options:	•GPS integrated with profile data. •Survey subsystem (RTK GPS or total stations). •Texture laser.

*Specifications subject to change without notice.

SURFACE SYSTEMS & INSTRUMENTS, INC.

California Division
501 Park Way, Mill Valley, California 94941
Tel: (415) 383-0570 • Facsimile: (415) 358-4340 www.smoothroad.com

Kansas Division
307 Plymate, Manhattan, Kansas 66502
Tel: (785) 539-6305 • Facsimile: (415) 358-4340
info@smoothroad.com

Scan for e-info