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SURFACE SYSTEMS & INSTRUMENTS, LLC

www.smoothroad.com

Custom Test Equipment • Mobile Technology Solutions

CS8500 PROFILOGRAPH



HARDWARE FEATURES

SOFTWARE FEATURES

<ul style="list-style-type: none"> • The original and <i>only true</i> California type system. (CS8500 is the new/replacement system for Cox and McCracken branded systems). • Guaranteed compliance with agency and ASTM specifications. • Professionally engineered hardware refined over 50 years. 	<ul style="list-style-type: none"> • Easy to learn, easy to use Windows software programs. • Multiple profile Indexes supported (PRI, IRI, HRI, RN). • Computer instructed calibration and data collection routines. • Feature rich, mature data analysis software.
<ul style="list-style-type: none"> • One-person assembly and operation. • Aluminum frame and support wheels assemble in minutes. • Portable operator control housing with AC/DC power supplies. 	<ul style="list-style-type: none"> • Collect dual wheel paths from either direction or any starting point. • Dual wheel paths test results on one trace with results averaged. • Two trace reports allow assessment of profile across lane.
<ul style="list-style-type: none"> • Bi-directional frame operation (reversible steering hardware orients system to test adjacent wheel path without turn-around). 	<ul style="list-style-type: none"> • English or Metric data collection and reporting. • Display of test results, stationing, and profile trace during collection.
<ul style="list-style-type: none"> • Panasonic Toughbook computer with Touchscreen controls. • Toughbook computer is Mil-Spec (<1.5% annual failure rate). • Lightweight generator for AC power. • Optional DC battery. 	<ul style="list-style-type: none"> • Must-grind bumps/dips display in real time with audible alarm. • Customized localized roughness reports display dimensions and peak magnitude for each bump and dip.
<ul style="list-style-type: none"> • GPS subsystem displays of GPS position, integrates coordinates with profile stations, localized roughness, and Google Earth. 	<ul style="list-style-type: none"> • Profile reports and traces on-screen, in PDF images, or hard copy. • Raw data exports to multiple formats (Excel, ProScan, ERD, and PPF).
<ul style="list-style-type: none"> • Adjustable hardware for over/under steering on curved surfaces. • Reversible brake for parking frame on sloped surfaces. • Optional enclosed cargo trailer with engineered hardware for secure storage and transit of CS8500 system. 	<ul style="list-style-type: none"> • Raw profile data encrypted for maximum security. • Profile data infinitely re-writable with different parameters. • Parameters adjust comply with all commonly used agency specifications (e.g. ASTM, DOT, Transport Ministry, FAA, and USACE).
<ul style="list-style-type: none"> • All major spare parts stocked and available by expedited delivery. • Warranty on all individual and integrated system components. 	<ul style="list-style-type: none"> • Add new data to existing profile data files for comparison of original and corrected surfaces. • Track ride improvement throughout project.
<ul style="list-style-type: none"> • Optional on-board printer for field printing traces and reports with power assisted paper take-up for auto-scrolling of profile traces. 	<ul style="list-style-type: none"> • Software license for field and desktop computers. • Worldwide on-site operator training and certifications available.
<ul style="list-style-type: none"> • Bridge configuration available (e.g. CalTrans Test 547). • Buy or Rent (equipment only or with trained operator). 	<ul style="list-style-type: none"> • Software updates by internet download (self-extracting). • Worldwide customer support.





CS8500 Computerized Profilograph



SSI Profiler v1.71 - Dual

Open File Analyze Data Collect Data Exit

Active File: C:\DataFiles\HSP\FHWA\SD\Horse Thief Lake Rd.ptd

Match T1/T2 Data View Trace in Google Earth Print Report Print Selected Trace

Segment	Station		PRI			Defects		Notes
#	Start	End	Track 1	Track 2	Average	Track 1	Track 2	
Summary	0+00.0	452+68.8	6.5	11.2	8.9	34	96	
Sect 1								
1	0+00.0	5+28.0	13.6	13.0	13.3	1	2	43 53' 34.01" N 103 35' 9.91" W
2	5+28.0	10+56.0	1.9	3.0	2.5	0	0	43 53' 38.41" N 103 35' 5.99" W
3	10+56.0	15+84.0	9.7	14.6	12.1	0	0	43 53' 41.27" N 103 35' 0.76" W
4	15+84.0	21+12.0	6.7	11.0	8.8	0	1	43 53' 44.35" N 103 34' 55.01" W
5	21+12.0	26+40.0	1.7	3.2	2.4	0	0	43 53' 48.08" N 103 34' 50.39" W
6	26+40.0	31+68.0	2.7	6.9	4.8	0	0	43 53' 50.11" N 103 34' 43.33" W
7	31+68.0	36+96.0	2.2	8.5	5.3	0	0	43 53' 48.29" N 103 34' 36.90" W
8	36+96.0	42+24.0	1.6	13.8	7.7	0	1	43 53' 46.09" N 103 34' 30.88" W
9	42+24.0	47+52.0	2.0	4.9	3.4	0	0	43 53' 43.72" N 103 34' 24.64" W
10	47+52.0	52+80.0	2.8	0.4	1.6	0	0	43 53' 41.05" N 103 34' 17.33" W

▲ Main-Screen Summary View of Test Results, Defects and GPS Coordinates ▲

SSI Profiler v1.61 - Dual High Speed

Open File View Summary Collect Data

Preview Units & Analysis Localized Roughness Project Parameters Print Options Export Data Corrections

Note 2> 0.540

0.110

Note 3> 0.240

0.370

0.140

Note 4> 0.130

0.070

0.050

Note 5> 1+00

Print Report Print Trace Print All Traces Track: << 1 >> 0000+00.0

Preview Report Preview Trace Save Settings Segment: << 1 >> Jump to Station

C:\DataFiles\SSI_Research\HSP\Soldier Creek Rd.ptd

▲ On-Screen View of Dual Wheel Path Profile Traces ▲

SSI Profiler v1.67 - Dual

Open File View Summary Collect Data

Preview Units & Analysis Localized Roughness Project Parameters Print Options Export Data Corrections Advanced

Defect Locations:

Relative-Height Data Used for Defects Analysis

(b, 1, 1)	0+22.5	to	0+32.0,	Peak	0.429	at	0+29.0
(b, 1, 1)	0+73.0	to	0+79.0,	Peak	0.611	at	0+75.5
(b, 2, 1)	0+73.0	to	0+81.0,	Peak	0.752	at	0+75.5
(b, 2, 1)	0+97.0	to	1+20.0,	Peak	1.022	at	1+05.5
(b, 1, 1)	0+99.0	to	1+14.5,	Peak	0.621	at	1+07.0
(b, 1, 1)	1+35.5	to	1+49.0,	Peak	0.521	at	1+41.0
(b, 2, 1)	1+74.5	to	1+93.5,	Peak	0.339	at	1+78.0
(b, 1, 1)	2+78.0	to	2+88.0,	Peak	0.427	at	2+83.5
(b, 1, 1)	3+46.5	to	3+52.5,	Peak	0.379	at	3+49.5
(b, 2, 4)	15+93.0	to	15+94.0,	Peak	0.312	at	15+93.5
(b, 2, 4)	18+16.0	to	18+23.0,	Peak	0.669	at	18+19.5
(b, 1, 4)	18+16.5	to	18+32.0,	Peak	0.995	at	18+20.0
(b, 2, 4)	19+64.5	to	19+76.5,	Peak	0.342	at	19+66.0
(b, 2, 5)	21+49.0	to	21+59.0,	Peak	0.476	at	21+56.5
(b, 1, 5)	21+93.0	to	22+08.5,	Peak	0.534	at	21+99.5
(b, 2, 5)	21+99.0	to	22+10.5,	Peak	0.422	at	22+04.5
(b, 2, 5)	22+62.0	to	22+75.0,	Peak	0.438	at	22+68.5
(b, 2, 5)	26+90.5	to	26+98.5,	Peak	0.313	at	26+91.5
(b, 1, 6)	27+39.5	to	27+60.0,	Peak	0.759	at	27+50.0
(b, 2, 6)	27+41.0	to	27+60.5,	Peak	0.891	at	27+56.0
(b, 1, 6)	27+63.0	to	27+82.0,	Peak	0.615	at	27+66.0
(b, 2, 6)	27+73.0	to	27+84.5,	Peak	0.703	at	27+78.0
(b, 2, 6)	28+80.0	to	29+00.0,	Peak	0.575	at	28+85.5
(b, 1, 6)	28+81.5	to	29+02.0,	Peak	0.456	at	28+86.0
(b, 1, 6)	29+27.0	to	29+33.0,	Peak	0.341	at	29+29.5

Print Report Print Trace Print All Traces Track: << 1 >> 0000+00.0

Preview Report Preview Trace Save Settings Segment: << 1 >> Jump to Station

C:\DataFiles\HSP\FHWA\California\FH_81.ptd

▲ Custom Reports Pinpoint Dimensions of Bumps and Dips ▲



▲ Detachable Field Housing Works in Field or Office ▲



▲ Mil-Spec Toughbook Computer with Touchscreen ▲



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