

Model 913A Membrane Switch & LED Tester



Tests keyboards, keypads, membranes, snap-action switches, general purpose switches and cables

Tests LEDs and seven segment displays

Accurate, fast testing,
User programmable test configurations

Serial number input manually or through barcode reader

User friendly Windows® 98 or greater software easily "learns" unit under test

Expandable to 90 channels,
Password protected

Displays PC screen graphic of unit under test

User configurations for x-y matrix keyboards, seven segment displays LEDs, discrete switches, etc.

Documents test results for future use and SPC action

Options:

Contact Resistance Ranges

LED/ Seven Segment Display Voltage Ranges

Test Interface Assemblies

Standard & custom

Calibration/Verification Fixtures

Label Printer with Software

Model 911A Automated Keyboard Test System



Circuit Card Assembly (PCI CCA)

30 pin Male Test Cable & Interface PCB

Model 913A Windows® 98 Software
Supports up to three CCAs (90 Channels)

Operating Instructions & Certificate
of Calibration

Customer Requirements:

Personal Computer

Pentium or higher PC running Windows®98
or greater at 233MHz or faster with full
PCI bus slot available per CCA

UUT Interconnect Cable

The Model 913A keyboard & LED Test System is a low-cost, highly responsive, generic test platform used to perform 100% acceptance testing, quality assurance certification, incoming inspection and engineering development of keyboards, keypads, membranes, snap-action switches, microswitches, general purpose switches, cables, LEDs and seven-segment displays.

The 913A consists of a circuit card assembly (CCA) and software installed by the user in a standard personal computer. It features 30 channels (expandable to 90, ie up to three CCAs) which can be configured as an x-y matrix. Resistance ranges of both 0-5,000Ω and 0-50,000Ω are featured with other ranges available upon request.

A user friendly Window® 98 or greater software environment allows the user to create a computer screen graphic representation of the unit under test (UUT) ie keyboard, LED, seven segment display etc. The software easily "learns" the relationship of the screen graphic to the UUT. The configurations created and test data obtained can be saved for future use and SPC action.

During keyboard testing, for example, the computer graphic displays key resistance and indicates tested and active keys by changing colour. An audio tone is sounded if a key's resistance is equal to or below the user programmed specified resistance, LED voltage levels are measured and illuminated in sequential order on the UUT and display for immediate visual inspection.

The 913A is a cost effective, fast acting tool which is accurate, operator friendly and extremely easy to learn and use.

Memcon also offers the Model 911A Automated Keyboard Test System, which consists of the 913A CCA(s), additional software and an x-y positioning platform. This system provides automatic, accurate positioning and testing of a UUT without requiring operator intervention.

Test Channels

One CCA : 30
 Two CCAs : 60
 Three CCAs : 90

Contact Resistance Ranges - Programmable

0-5,000W Accuracy ±1.25%
 or 3 Ω whichever is greater
 0-50,000W Accuracy 0-19,999 Ω: ±1.75%
 or 4 Ω whichever is greater;
 20,000-34,999Ω: ±2.5%
 35,000-50,000Ω: ±3.5%

Channel Shorts Test

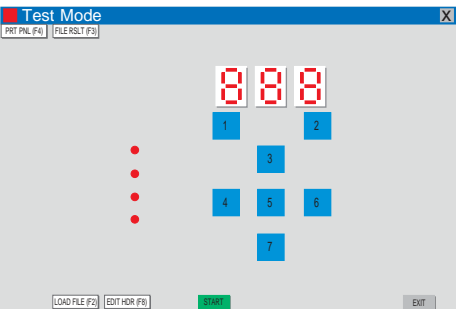
0-12MΩ Accuracy ±5% or ±10 kΩ
 whichever is greater

LED Seven Segment Display Test Voltages - Programmable

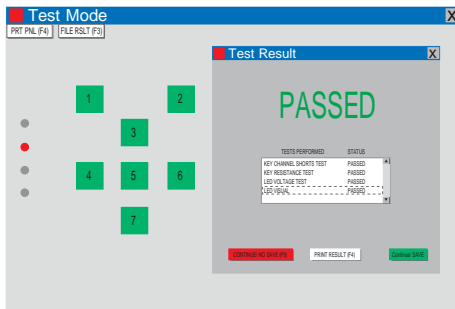
0-8Vdc ± 0.050Vdc: 1, 5, 10 & 20mA
 Other ranges available upon request (option)

Test Results - Saved to file. Printout available
 Power Requirements - PC dependent

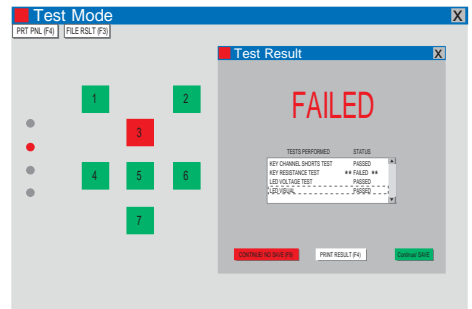
Other resistance ranges available upon request



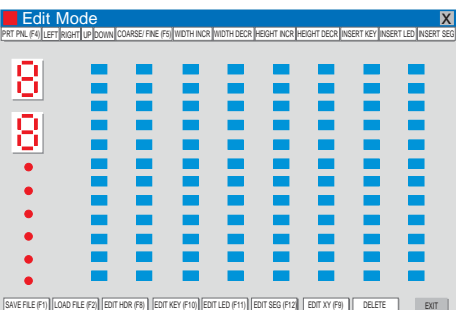
Test Mode Screen Image



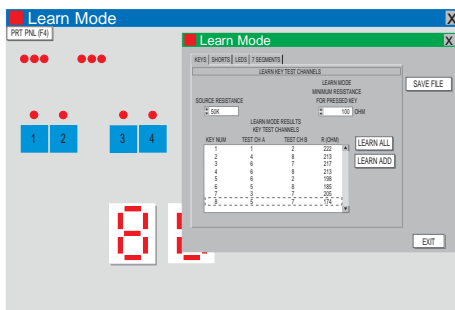
Test Result Screen Image : Passed



Test Result Screen Image : Failed



Edit Mode Screen Image



Learn Mode Screen Image

Model 913 Software Version Number 1.00											
Number CCA's installed : 1				Number CCA's required : 1				Overall Test Status : Passed			
CCA1 S/ N : 101											
Date: 22 July 1998				Time : 11 : 46 : 36							
Configuration File Name : C:\model913\m300.cfg				Configuration Version Number : 1.00				Lot Number : L/ N			
Test Result File Name : C:\model913\m300.rst				Part Number : P/ N				Operator : R			
Work Order Number : WO								Serial Number :			
Key Channel's Shorts Test Status : PASS											
KEY	MEAS (Ω)	SPEC R	STATUS	KEY	MEAS (Ω)	SPEC R	STATUS				
NO	MIN	MAX		NO	MIN	MAX					
1	18	0 100	PASS	2	21	0 100	PASS				
3	26	0 100	PASS	4	27	0 100	PASS				
5	31	0 100	PASS	6	26	0 100	PASS				
7	30	0 100	PASS								
Key Resistance Test Status : PASS											
Key Resistance Test Range : 50K Ω											
LED	RANGE (V)	TEST (mA)	MEAS (V)	SPEC (MINV)	SPEC (MAX V)	STATUS					
1	20 ma	14.5	2.028	1.000	4.000	PASS					
2	20 ma	14.5	2.019	1.000	4.000	PASS					
3	20 ma	14.4	2.042	1.000	4.000	PASS					
4	20 ma	14.4	2.082	1.000	4.000	PASS					

Test Result Printout

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