

## 1500 High Voltage Series



Fully updated, low cost, ergonomic benchtop wiring analyzer makes 1500VDC/1067VAC HiPot testing faster and easier than ever!

The *Horizon II* is the next-generation *Horizon* wiring analyzer. It has been completely repackaged to further enhance the user experience and improve overall test performance.

Key features include a fully updated **Windows XP-based** user environment, **color touch-screen**, real-time temperature and humidity monitoring, **expanded I/O**, flash disk data storage and improved ergonomics. Operators will appreciate its **oversized, color touch-screen**, built-in 'START' and 'STOP' buttons, and on-screen user help tips which makes it exceptionally easy to program and test.

The *Horizon II (H2)* software will accept and run any *Horizon* test program, so there is no need to re-create test programs when moving to H2.

Whether networked, integrated or used as a standalone tester, *Horizon II* provides virtually unlimited data storage and reporting capabilities with built-in flash disk and label printer support.

This all-in-one tester offers an unrivalled diversity of test scenarios in a portable wiring analyzer. All *Horizon II* models enable 128-point testing with modular expansion capability up to 1024 points capable of switching 1A and HiPot testing up to 1500 VDC and/or 1067 VAC.

Standard test capability includes **fault location**, **automatic product learning**, **component detection** and real-time **intermittent open/short detection**.



## [Models]

Horizon II multi-point cable and harness test systems are supplied with a minimum of 128 Low or high-voltage test points and can be configured with the following sources:

Model	Voltage (AC)	Voltage (DC)	High Current
H2-LV	-	-	-
H2-HV1	-	1000	1A Fixed
H2-HV2	-	1500	1A Fixed
H2-HV3	1067	-	1A Fixed
H2-HV4	1067	1500	1A Fixed
H2-HV5	1067	1000	1A Fixed
H2-HV6	-	-	1A Fixed



Horizon II



Handheld digital probe for remote probing of product under test



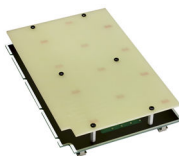
Expansion boxes in 128-point increments



Tools for periodic verification of system calibration



HA106 Standard Adapter



HA304 Custom Adapter Kit

## [System Configuration]

- The built-in PC and flash drive provides fast and capable computing power allowing fully independent or networked operation of each Horizon II tester
- The following external computing capabilities can be easily added: VGA monitor, label or standard printer, keyboard, mouse, network capability and 3 I/O for PLC control
- TCL script language for advanced applications
- Supplied with ground probe, instruction manual, calibration certificate and one-year warranty

## [Options and Accessories]

- Full range of product adapters
- Custom adapter kits
- Expansion boxes in 128-point increments with cable lengths of 3', 6', 9' and 15'
- Tools for periodic verification of system calibration
- 1A/28VDC programmable high-current source
- Handheld digital probe for remote probing
- 8 I/O
- Simplex and Kelvin test adapters

## [SPC and Data Management]

- Text format of test programs, database export and SPC capabilities

## [Test Capabilities]

- Auto-start test when product is loaded
- Test Speed  
500 nets per Sec. - Quick Scan (continuity and isolation)  
7000 nets per Sec. - Quick Scan (continuity)
- Self-learn known good products
- High Voltage Breakdown (HiPot)
- Insulation Resistance
- Flex test for intermittent failures
- Twisted pair verification
- Resistors, capacitors, diodes, keys, LEDs

## [Physical Data]

- Power: 110/220VAC, 50/60 Hz, 1A
- Dimensions: 532mm W x 273mm D x 175mm H  
20.94" W x 10.75" D x 6.87" H
- Weight: 15kg (33 lbs) - main unit  
5kg (11 lbs) - expansion box
- Operation Temp. 0 - 40 °C

## [Measurement Specifications]

### MSR Resistance Measurements

2-Wire Measurements		
Range	Accuracy	Comments
0Ω - 100KΩ	± (2.5% + 0.1Ω) With tare	Readings are at the adapter pins. Typical ±(2%+0.02Ω)
0Ω - 100KΩ	± (2.5% + 1Ω) No tare	Typical ±(2%+ 0.5Ω)
101KΩ - 10MΩ	±7%	Typical ±5%
10.1MΩ - 25MΩ	±15%	Use DC HiPot for better accuracy in these ranges
25.1MΩ - 50MΩ	±30%	
4-Wire Measurements		
Range	Accuracy	Comments
0Ω - 400Ω	± (2.5% + 2mΩ)	Allows for expansion and other factors Typical reading : Typical ±(2%+1mΩ)
400Ω - 50MΩ	Same as 2-Wire	Above 400Ω the measurement default to 2-wires

## [Measurement Specifications]

### MSR Capacitance Measurements

Capacitance Measurement		
Range	Accuracy	Comments
50pF - 1uF	± (5% + 10pF)	With tare
	± (5% + 20pF)	Systems with more than 256 test points Without tare
50pF - 1uF	± (5% + 2nF)	Systems with more than 256 test points
1uF - 10mF	± 10%	With or without tare

### Programmable High Current Source (HCS) Measurement

2-Wire Resistance Measurement			
Range	Accuracy	Comments	
0Ω - 2.0Ω	±(5% + 100mΩ)	With tare	
4-Wire Resistance Measurement			
Range	Accuracy	Comments	
0Ω - 2.0Ω	±(2.5% + 5mΩ);		
Functional Test (Voltage and Current)			
Feature	Range	Accuracy	Resolution
Programmed Voltage	2V - 28V	±2.5%	0.1V
Programmed Current	1mA - 1000mA	±2.5%	1mA
4-Wire Voltage Drop Measurement			
Range	Accuracy	Comments	
0V - 2.0V	±(2.5% + 2mV)		

### Fixed High Current Source Resistance Measurement

4-Wire Resistance Measurement		
Range	Accuracy	Comments
0Ω - 2.0Ω	±(2% + 2mΩ)	Typical ±(2%+1mΩ)
4-Wire Voltage Drop Measurement		
Range	Accuracy	Comments
0V - 2.0V	±(2.5% + 2mV)	

### DC HiPot Generator

Settings and Detections			
Feature	Range	Accuracy	Resolution
Output Voltage	50V - 1500V	±(1% + 2V)	1V
Dwell Time	0.05 - 600 sec	±2% -0/+ 50ms	10ms
Leakage Current Measurement			
Range	Accuracy	Resolution	
1uA - 2.5mA	±(5% + 0.5uA)	0.1uA	
Insulation Resistance (IR) Measurements			
Range	Accuracy	Lowest Voltage for max. accuracy over entire IR range	
50KΩ - 100MΩ	±5%	100	
100MΩ - 200MΩ	±5%	200	
200MΩ - 500MΩ	±5%	500	
500MΩ - 1GΩ	±5%	1000	
1GΩ - 1.5GΩ	±5%	1500	

### AC HiPot Generator

Settings and Detections			
Feature	Range	Accuracy	Resolution
Output Voltage	50V - 1067V	±(10% + 5V)	1V
Output Frequency	50Hz/60Hz	±5%	N/A
Dwell Time	0.4 - 600 sec.	±2% -0/+ 250ms	20ms @ 50Hz 16.66ms @ 60Hz
Arc Detection	Automatic	Aperture 1-10uSec Voltage 100V - 1500V Current 1% to 100%	Sensitivity 10mA/uSec
Neutralization Mode	On/Off	N/A	N/A
Arcs Only Mode	On/Off	N/A	N/A
Leakage Current Measurement			
Range	Accuracy	Resolution	
0.1mA - 8mA	±(10% + 5uA)	5uA	
Insulation Resistance (IR) Measurements			
Range	Accuracy	Lowest Voltage for max. accuracy over entire IR range	
12kΩ - 1MΩ	±20%	100 V	
25kΩ - 2MΩ	±20%	200 V	
62kΩ - 5MΩ	±20%	500 V	
93kΩ - 7MΩ	±20%	750 V	
125kΩ - 10MΩ	±20%	1000 V	

#### Notes:

1. Certain features in this datasheet are optional. Some of the technical parameters may under certain conditions, for further information please refer to full version datasheet, or contact CableTest Systems.

2. CableTest Systems reserves the right to update specifications at any time, please visit [www.cabletest.com](http://www.cabletest.com) for latest updates.

