Signature® 1000H/H+

ISO 9001
CIRRIS' QUALITY SYSTEM IS CERTIFIED

Hipot Cable/Harness Testing Made Easy

The Signature 1000H/1000H+ hipot wiring analyzers set a new high quality standard in cable and harness testing. They automatically perform a connection resistance test and an insulation resistance/dielectric breakdown (hipot) test. This level of testing assures better quality by eliminating possible future failures. Assemblies that pass simple continuity testing may fail later due to weak insulation, poor terminations, or other problems.

Easy to Use: The 1000H/1000H+ communicate in plain English. They self-program from a sample assembly, from memory, or from wire lists downloaded from a PC

(optional on the 1000H+ only). You select test parameters with the simple push of a button. Test results are given audibly and visually and can also be printed. The 1000H/1000H+ also provide step-by-step instructions for guided assembly or rework.

Hard Copy Documentation—Signature Analysis: You can generate printouts which contain the wiring list, connector ID, and test parameter settings of the cable. The analyzer derives a unique signature for each assembly to verify correct programming. This information becomes your documentation against which future assemblies are tested. The operator compares the signature

of the programmed cable against the documented standard to assure correct programming. Printouts also provide proof of testing by showing the number of good cables tested.

Save Time and Money: Designed for a high volume production environment, the 1000H/H+ analyzers are quick, reliable, and easy to use. They are backed by our full one-year warranty and 30-day right-of-return guarantee.

CIRRIS®

Cable/Harness Testing Made Easy™

Key Features for the 1000H and the 1000H+

Hipot Test:
1000H: 50 to 630 VDC, insulation resistance 5MΩ to 500MΩ.
1000H+: 50 to 1000 VDC, insulation resistance 5MΩ to 1000MΩ.

Connection Resistance Test:
1000H: Fixed thresholds of 0.5Ω, 1Ω, 2Ω, 5Ω, 10Ω, 20Ω, 50Ω, 100Ω, 200Ω, 500Ω, or 1000Ω.
1000H+: User selectable thresholds ranging from 0.1Ω to 100KΩ.

Advanced Features Available on the 1000H+

4-Wire Resistance Test:
With optional 4-wire adapters the 1000H+ can test resistance from .01Ω to 10Ω with 1 milliohm (.001Ω) resolution.
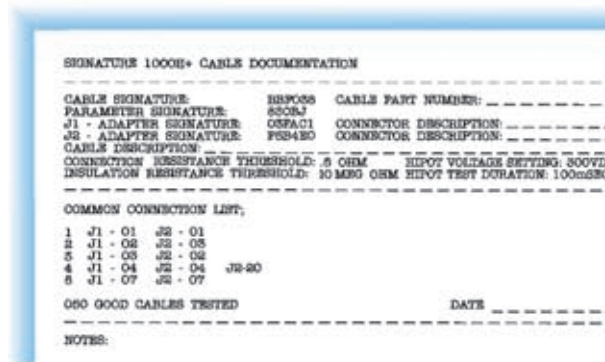
RS-232 Serial Link:
The 1000H+ includes a serial interface card and CTLynx wirelist management software. The CTL (Cirris Test Language)

command set allows custom remote control of the analyzer in applications where the 1000H+ is a subsystem of a fully automated process.

Resistors, Capacitors, Diodes, Twisted Pairs:
In "Complex Test" mode the 1000H+ automatically learns and tests assemblies with resistors, diodes, and capacitors. With CTLynx software you can also test twisted pairs and shields.

Which-End Error Detection:
The 1000H+ identifies which connector of a cable assembly has an open or short. Locating errors in this manner reduces troubleshooting time and saves you money.

High-Speed Hipot Testing:
The 1000H+ uses a special high-speed algorithm to speed up hipot testing, in most cases increasing overall test speed up to five times faster than the standard 1000H.

Printed reports are key to the Cirris Cable/Harness Quality Assurance System.
Cirris stocks adapters for a wide variety of popular connectors.

Specifications

CAPACITY:
  1000H: 128 to 256 points
  1000H+: 128 to 512 points

TEST LEVELS:
Connection Test Voltage
  ≤ 5 volts 6 mA max current
Insulation Resistance & Dielectric (Hipot) Test
  1000H: OFF, 50, 100, 200, 300, 400, 500, 630 VDC ±10%
  1000H+: As above plus 800* and 1000* VDC

SENSITIVITY:
Connection Resistance
  1000H: .5, 1, 2, 5, 10, 20, 50, 100, 200, 500, 1000 ohms ±4% ± 0.1Ω
  1000H+: 0.1 to 100kΩ ±4% ± 0.1Ω, also 500k, 1M, and 5MΩ ±20%
    4-Wire: .01 to 10Ω ±4% ±.005Ω
Insulation Resistance
  5M, 10M, 20M, 50M, 100M, 200MΩ*† = ±10%, 500MΩ ±20%
Capacitance:
  5nF to 100μF ±10% (relative measurements to 10pF)

TEST RATE:
Connection Test:
  128 points per second (typical)
Hipot Dwell:
  10 ms, 100 ms, 1 sec, 2 sec, 5 sec, 10 sec, 30 sec, 1 min. per net
  (1000H+ employs high-speed hipot algorithm to speed up hipot testing)

MAX CAPACITANCE PER NET:
  @ 50V 0.1μF, 100V 0.1μF, 200V .03μF, 300V 15nF, 400V 7nF, 500V 4nF, 630V 3nF, 800V 1.5nF, 1000V 1nF

MAX POINTS PER NET:
  1000H: 50
  1000H+: 100 (with auxiliary power supply)

HV ENERGY LIMIT:
  Current limited to 6mA max. for 10ms duration

PRINTER OUTPUT:
  Standard Centronics type parallel interface.

SERIAL PORT:
  1000H+ only, RS-232 interface. Uses DB9 female connector.

PROBE:
  Accessory for test point identification.

MEMORY:
  Nonvolatile storage of up to 50 wirelists. Lithium battery backup.

POWER:
  105-135 VAC, 60 Hz 16 Watts (210-260 VAC 50 Hz optional)

SIZE:
  Main unit: 13" x 6.5" x 5" (33 cm x 16.5 cm x 13 cm)
  Add-on: 6" x 6.5" x 5" (15 cm x 16.5 cm x 13 cm)

WEIGHT:
  Main unit: 7.5 lbs (3.4 kg), Add-on: 4.5 lbs (2.1 kg)

WARRANTY:
  1 year parts and labor
  Replacement modules available next working day

*At 800 and 1000 VDC special adapters are required to test above 100MΩ. † Insulation resistance tolerance may degrade at relative humidity greater than 75%.

For More Information, Call Toll-free 1-800-441-9910

CIRRIS
Cable/Harness Testing Made Easy™