

Cable & Harness **Test Systems**

Welcome to Cirris

Discover why so many companies prefer to test their cables and harnesses with Cirris testers.





Welcome to Cirris

As a world leader in electrical test equipment, Cirris is proud to provide the tools and knowledge to create safe and reliable cable assemblies. Our quality testers and outstanding customer service have become a platform to help companies grow.

Cirris testers are designed to meet industry specifications while being easy to use. We have a range of testers, software, adapters, and other tools for analyzing the accuracy of cables and harnesses. Over thirty-five years have grown our product line from a single unit to a wide range of low voltage and high voltage testers.

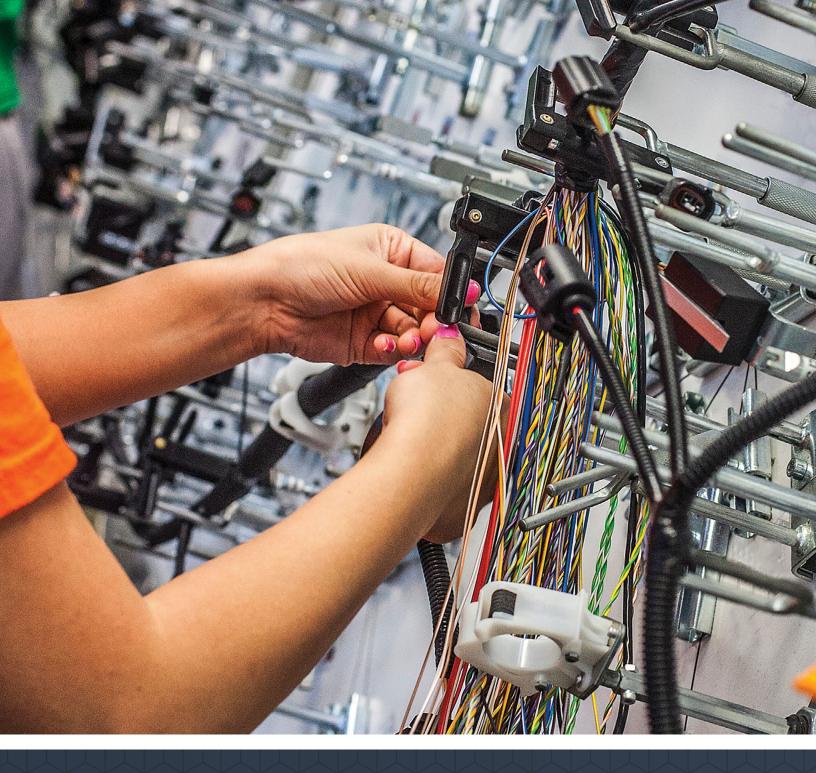
We believe that every customer interaction should be a positive experience. This belief has helped us build trusted relationships with clients all over the world. We answer questions, provide support, and do our best to solve problems for our customers.

Testing is one of the most important actions a manufacturer can take. Cable manufacturers everywhere trust Cirris, not only for quality products but for outstanding customer service. They know Cirris is a company that will be a partner for years to come.

Our Core Values

Cirris encourages employees to develop values that will help them become successful. Cirris employees exhibit these behaviors every day as they serve our customers and each other.





We endeavor to make cable testing as streamlined as possible. We incorporate the latest technology for precise test measurements and enhance the ease-of-use of our products.



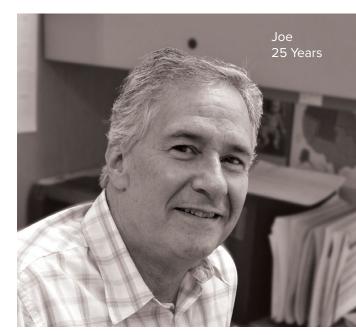
Tested for Over 35 Years

As the world becomes dependent on technology, Cirris is prepared to meet the demand for more complex cable specifications. Thirty-five years of designing cable testers and software means Cirris products have progressed along with growing technology. Since the original Signature 1000 Cable Tester, Cirris has added essential features to each new tester. Our range of testers can supply high voltage test needs up to 2000 VDC and 1070 VAC, test up to one-hundred-thousand test points, and integrate into large automated machinery.





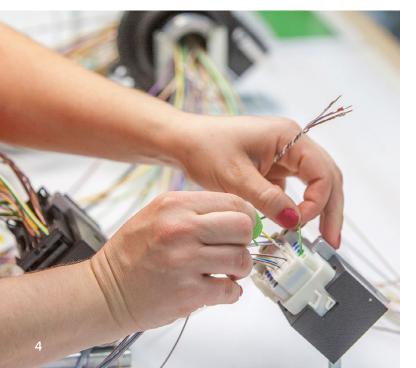
Our quality testers and outstanding customer service have become a platform to help companies grow.













Cirris is proud to be AS9100D and ISO 9001:2015 certified.



Industries We Serve

From small cable shops to aerospace manufacturers, cable and harness industries throughout the world rely on Cirris for quality products. Customers in every industry trust Cirris testers for their cables and harnesses.

Some of the industries that test with Cirris:

- Aerospace
- Military
- Automotive
- Medical
- High volume production
- Contract manufacturers

- Automated test systems
- Telecom
- Heavy machinery
- Marine
- Formula 1 racing



Cirris testers are engineered and manufactured by our experts to meet the specifications of the industries we serve.

Product Comparison

Key features of our cable and harness testers. Detailed product overviews can be found on the following pages and online at cirris.com.





	4200
Number of Test Points	128 to 1,024
Max Points Per Net	Unlimited
Low Voltage Measurement	
Continuity, Resistance	Yes
Max Low Voltage	4 V
Low Voltage Insulation Resistance (IR)	0.1 Ω to 5 MΩ
Passive Components (Resistors, Capacitors, Diodes)	Yes
Active Components (Relays, Lights)	No
4-wire Kelvin	Yes
Twisted Pair	No
High Voltage Measurement	
Dielectric Withstand (DW) Voltage	NA
Dielectric Withstand Current	NA
Insulation Resistance (IR)	NA
Interface	7" Touch Screen
Communications	
Fieldbus - PLC Communication	Optional [‡]
Digital I/O	4 In, 6 Out
Serial & USB	Yes
Label & Report Printing	Yes
Cable interface Options	
Cirris Adapter System	Yes
Smart-Lights®	No
Software	
User Interface	Cirris OS
Easy-Wire®	Optional
Scripting	Yes*
Network Communications	Ethernet, WiFi
Connector Graphics & Guide LEDs	No
CE Certified	Yes
	* Optional

4200	4250
128 to 1,024	128 to 1,024
Unlimited	100
Yes	Yes
4 V	4 V
0.1 Ω to 5 MΩ	0.1 Ω to 5 MΩ
Yes	Yes
No	No
Yes	Yes
No	Yes
NA	1500 VDC 2000 VDC*/ 1000 VAC*
NA	0.1 mA to 1.5 mA
NA	5 MΩ to 1000 MΩ
7" Touch Screen	7" Touch Screen
Optional [‡]	Optional [‡]
4 In, 6 Out	4 In, 6 Out
Yes	Yes
Yes	Yes
Yes	Yes
No	No
Cirris OS	Cirris OS
Optional	Optional
Yes*	Yes*
Ethernet, WiFi	Ethernet, WiFl
No	No
Yes	Yes

** Through PC Connection

Harness Testers







Easy-Touch [®] Pro	8100	CH2
128 to 1,024	256 - 100,000	160 - 100,000
512	Unlimited	Unlimited
Yes	Yes	Yes
4 V	6 V .25 V to 6 V*	2.5 V 0.25 V to 10 V*
0.1 Ω to 5 MΩ	0.1 Ω to 3 MΩ	0.1 Ω to 1 MΩ
Yes	Yes	Yes
No	No	Yes*
Yes	Yes	Yes
Yes	Yes	Yes
1500 VDC 2000 VDC*/ 1000 VAC*	NA	1500 VDC / 1070 VAC
0.1 mA to 1.5 mA	NA	10 μA to 2.5 mA
5 MΩ to 1000 MΩ	NA	5 MΩ to 1000 MΩ
10.4" Touch Screen	PC	PC
Optional [‡]	Optional [‡]	Optional [‡]
4 In, 6 Out*	20 In/Out, 8 Out*	10 In, 10 Out*
Yes**	Yes**	Yes**
Yes	Yes	Yes
Yes	No	No
No	Yes	Yes
Easy-Wire	Easy-Wire	Easy-Wire
Standard	Standard	Standard
Yes*	Yes*	Yes*
Ethernet	PC-based	PC-based
No	Yes	Yes
Yes	Yes	Yes
	[‡] EtherNet/IP EtherCAT. PROFU® PRO	in Madbus







4200 & 4250 Cable Testers

The Cirris® 4200 Series is made up of the 4250 high voltage cable tester and the 4200 low voltage cable tester. Both testers can perform a low voltage test to check for shorts, opens, miswires, and high resistance connections. The 4250 uses high voltage to verify that the device-under-test has adequate dielectric strength to resist an overvoltage condition. These tests ensure the cable is built to your specified standards and that the insulator is strong enough to support the life of the product.

The 4200 Series can easily integrate into your high-volume, low-mix application where cycle time and quality are essential. With the flexibility to communicate in a network, use the tester to share, store, and modify test programs as needed.

Product Features

- High Voltage* Test with voltages of up to 2000 VDC or 1000 VAC (1500 VDC standard).
- Expandable Up to 1024 points in 128-point increments.
- **Thorough Testing** Test for continuity, isolation, opens, and miswires. Recognize components such as resistors, diodes, capacitors, and perform 4-wire Kelvin resistance measurements.
- Color Display with Touch Screen Interact with instructions and test results on 7" display
- Fast Testing Innovative technology and efficient algorithms reduce time spent on testing.
- Easy to Learn No advanced skills or training necessary to begin testing.
- **Compact** Small, lightweight, and self-contained for easy relocation around the production floor.
- Networking Access Easily share test programs and printers among multiple units.
- Test Program Customization Customize test setup, labels, and reports.
- Multiple Language Options Interface translated into

several languages to minimize mistakes caused by language barriers. (More languages to come.)

voltage

- Transition from 1100 Use test programs and reports already set up for the 1100 Series on the 4200 Series.
- Optional PC Control Connect to a PC and expand capability with Cirris Easy-Wire® Software.
- **Printing** Local and network printing capabilities for printing reports. Two serial printing ports available for printing of labels and reports locally.
- Error Location Detects error location (Which-End) for continuity and isolation faults.
- Digital I/O Automate your test process with lights, switches, and safety devices. 4 inputs / 6 outputs available.
- Cirris Adapter System Compatible with Cirris interchangeable test adapters
- Optional Features Also compatible with scripting and data collection.



Easy-Touch® Pro Cable Tester

The Easy-Touch Pro is a standalone high voltage cable tester paired with Easy-Wire® Software. With a built-in Windows® PC, the Easy-Touch Pro integrates into your manufacturing process for efficient testing and reporting. Easily store test data and reports locally or on your network database.

Product Features

- **High Voltage** Test with voltages of up to 2000 VDC or 1000 VAC (1500 VDC standard).
- Expandable Up to 1024 points in 128-point increments.
- **Thorough Testing** Test for continuity, isolation, opens, and miswires. Recognize components such as resistors, diodes, capacitors, and perform 4-wire Kelvin resistance measurements.
- **Self-Contained** Built-in PC with a 10.4" color display with touch screen for fully standalone capability.
- **Fast Testing** Innovative technology and efficient algorithms reduce time spent on testing.
- Easy to Use Create test programs, choose a test method, and customize reports with Easy-Wire Software.

- **Networking Options** Share test programs, printers, and files through your Windows network.
- **Compact** Self-contained for easy movement around production floor.

test points

hiah

voltade

standalone pc control

- **Test Program Customization** Customize your programs, labels, and reports.
- Secure Offers traceability by recording operator use and time stamping test report. Secure access by limiting admission with user logins and passwords.
- **Quick Test Setup and Creation** Cirris Adapter System provides inexpensive, interchangeable interface cables.
- **Capable of Complex Testing** High voltage, components testing, and more.

Cirris Adapter System

The Cirris Adapter System uses interchangeable adapters as the interface for connecting the tester to the device-under-test (DUT). Adapters are available in three sizes. Single-high adapters plug into one receptacle on the tester (e.g. J1). Double-high adapters plug into two vertically-adjacent receptacles (e.g. J1 & J2). Quad-high adapters plug into all four receptacles on the tester base or on an expansion scanner. A list of the standard adapters can be found at cirris.com/cirris-adapter-system.

If the DUT includes connectors that have no direct adapter mate, test cables can be used as a "bridge" between the connector on a standard Cirris adapter and the DUT connector. You can also contact your Cirris sales representative to request a quote for a custom adapter.







8100 Harness Tester

The 8100 is the next generation of Cirris low voltage harness tester. The tester is driven by the powerful, Easy-Wire® software, which provides maximum test flexibility. The test system allows operators to view connector images with target pin locations during the assembly process or rework. The 8100 has a robust design to meet the rigors of the production environment. Its compact size means it is non-intrusive at the workstation, can be mounted on the back of a harness board, or can be distributed with other 8100 units around the device to be tested.

Product Features

- Expandable Scale from 256 to 100,000 test points.
- **CR Compatible** Use legacy CR test programs, and use most 8100 test programs on CR test systems.
- Smart or Traditional Interfacing Use with either Cirris Smart-Lights® or traditional interfacing.
- **Easy-Wire® Software** Powerful software provides efficient test set-up and retrieval, operator access based on login, flexible test operation and reporting, and a test record archive.
- **Operator Guidance** Graphic representations and operator prompts simplifies the build process and troubleshooting.
- **Passive Components** Flexibly test assemblies with passive components such as resistors, diodes, capacitors.

• **Sensitive Measurements** – Use Cirris Advance Instructions to make custom electrical measurements.

assembly

contro

- Windows PC Based Provides easy integration with bar code scanners, local and shared printers. Optionally, accommodates a PC network so multiple testers can use the same test data, user login, and report formats.
- **Portability Option** Power for base unit is sourced from PC/USB connection allowing for mobility using laptop battery power if needed.
- **Durable** With new rugged design, the 8100 withstands the rigors of the production environment.
- **4-Wire Kelvin** When needed, make higher accuracy resistance measurements.
- **Digital I/O** This option allows easy integration with external controls and equipment.

Saving Time

A US-based cable and harness manufacturer used testers not only for the final test but as a building aid. They created test programs that allowed the operator to build an entire cable without ever looking at a printed wire list. A tester running Cirris Easy-Wire® Software provided the operator with vital information such as wire color and gauge that could be accessed without going back to the printed wire list. They used the tester's probe capability to determine which wire came next. Other testers could only give limited information, insufficient for the company's fast-paced environment. By using the Cirris tester and software, it took the company half as much time to build a cable.



The CH2 is a versatile wire harness tester with built-in high voltage testing capability. Along with being easy to learn, the CH2 provides a high level of control over testing. It is compact enough to be easily used on a factory floor, yet capable enough to meet military and aerospace test specifications.

Product Features

- High Voltage CH2 tests with voltages of up to 1500 VDC or 1070 VAC.
- **Expandable** May be configured from 160 to 100,000 test points. Base unit holds 800 test points. The test points can be distributed around a large tested device.
- **Compact** CH2 base unit holds 800 test points, weighs 42 lbs (19 Kg), and the footprint is only 17.4" x 6.3" x 17.4" (44 cm x 16 cm x 44 cm).
- Operator Friendly The Easy-Wire Software allows connector images, operator prompts, and guide LEDs for assembly or rework.
- **Test Customization** Optional custom test instructions allow the maximum measurement control and integration with external meters. Optional scripting extends test flexibility.

- Flexible Test Setup Quick setup for both traditional and Smart-Lights[®] interface cables. Smart-Lights allow fast and secure test setup with modular interfacing. Test Integration – Digital I/O capability allows the tester to control and respond to other devices in the test platform.
- Active Components The optional Cirris Energization Box can activate components such as relays and lights in the tested device.
- **Reporting** Test reports can be readily customized for organization and understanding. Retrieve past reports from a database archive.
- Test Standards Meets the requirements of the following test standards: IPC/WHMA-A-20, MIL-STD-202G, MIL-HDBK-83575, MIL-STD-1344A(5), MIL-C-45224D, and NASA-STD 8739.4A.

Convenient Test Solutions

A company building a manned spacecraft wanted a way to test harnesses after they were installed inside the vehicle. They focused on finding defects that may have occurred during installation—i.e. clamps tightening and cutting insulation, someone nicking a wire with a screwdriver, etc. Using a Cirris high voltage tester, they ensured the insulation was good and the harnesses were installed correctly. The relatively small size of the tester meant they could move the tester to the harnesses and perform tests with ease.

Testing Solutions Tailored to Your Needs

The Cirris Test Application Group (TAG) has been working with customers for decades to satisfy their unique testing needs.

For some customers, we make simple mating cables for their device-under-test (DUT). For others, we create custom systems with testers, test automation, interface cables, and software to integrate with their corporate infrastructure. Many of our standard modules are used by machine builders and integrators to make their business easier. Regardless of your needs, Cirris has over 35 years of industry experience and is excited to work with you.

Some of the services that we offer:

- Cables and harnesses
- Harness boards and tables
- Custom mating cables & adapters
- High volume fixtures
- Racks and carts
- Custom scripting

- Custom test cells
- Tester integration & automation
- Certifications for your industry
- Systems with testers, meters, etc.
- Software and data integration
- Communication protocols

We take pride in making reliable, easy-to-use testers and will take the same care as we work with you on your project. Contact your regional salesperson today to see how we can help you.

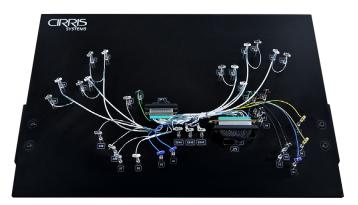


A custom CH2 interface saves money and time by allowing customers to connect their existing documented cables to the front of the tester.





In addition to offering hundreds of standard adapters, Cirris can provide custom adapters to interface directly to a tested device or to existing interface cables.



Test boards are used to perform a pretest before assembling the cable or harness into the final product. They are typically used when a customer has the harness built in another facility.

Want to Learn More?

More information about Cirris and our products can be found at www.cirris.com and in our product catalog.

Contact Us

For questions about our products or services, please contact your sales representative or Cirris distributor.



(+1) 801-973-4600



Cirris, Inc.

401 North 5600 West Salt Lake City, UT 84116

