# Cirris 4200 Series
Getting Started Guide

Cirris 4200 Series Testers combine flexible testing capabilities with a simple, touch screen user interface for ease of operation. This guide will help the new user get started with the unit, by walking through the process of setting up the tester, creating a test program, and testing a cable.

For more complete instructions, see the *4200 Series User Manual*, which can be found on the USB flash drive supplied with the tester.
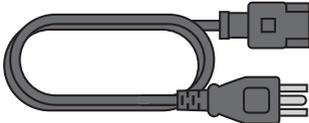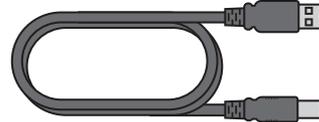
In the Box

You should have received:

☐ Tester Unit

☐ Power Cable
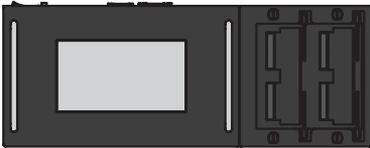
☐ Power Supply

☐ USB Flash Drive containing manual and software
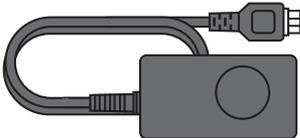

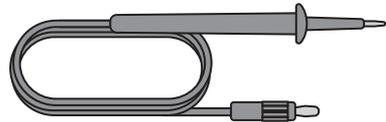☐ USB Cable

☐ Probe

☐ WiFi Antenna

You may have also received:

- ■ Cirris Adapters
- ■ Tilt Stand
- ■ Expansion Boxes

- ■ Performance Verification Kit
- ■ Smart USB to Serial Printer Cable
- ■ Label Printer

Hardware Setup

1. Connect the power cord to the tester.

2. Plug the power cord into a grounded outlet (surge protector recommended).

3. Connect the probe.

4. Press the power button to turn on the tester.

Back / Top Panel of Tester
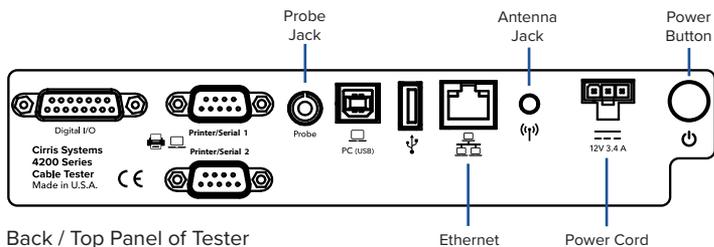
Networking

While it's not required to operate the tester, installing the included Cirris Hub software on a networked PC allows the tester to take advantage of its built-in networking capability to perform a variety of tasks including:

- Storing test programs on a network drive for easy backup of the files.
- Sharing test programs stored on a network drive or on a mapped cloud drive such as OneDrive, SharePoint, Google Drive, Dropbox etc.
- Sharing test programs with remote locations.
- Printing reports to network printers.
- Printing reports as .pdf files.
- Editing test programs using the Hub editor.
- Organizing testers with custom names and tracking calibration status and firmware version.
- Monitoring the current status of testers (Online / Offline / Testing).

The tester has two options for connecting to a network:

1. Wired connections are supported by the tester's Ethernet port.

2. The antenna is used for WiFi access.

For more information on networking and the Cirris Hub, see the *Cirris Hub Manual* and the *4200 Series User Manual*. Both manuals and the Cirris Hub software installation are included on the USB flash drive supplied with the tester.

Fixturing

The 4200 Series testers are compatible with the Cirris Adapter System which uses interchangeable adapters as the interface for connecting the tester to the Device Under Test (DUT). A large number of standard adapters providing a wide variety of connector types are available (a complete list of the standard adapters can be found on the Cirris web site). However, 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.

Adapters are available is 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.

To attach an adapter to the tester:

1. Push the slidelocks, marked with red arrows in the graphic below, to the outward positions.

2. Set an adapter in one or more of the J1-J4 slots. Insert the adapter by pushing it to the left (toward the tester's screen) with steady, even pressure.

3. You'll know the adapter is fully seated when the slidelocks can be moved inward to hold the adapter in place. Using the slidelocks will reduce the stress on the adapter pins and the tester's receptacles increasing the lifespan of both.
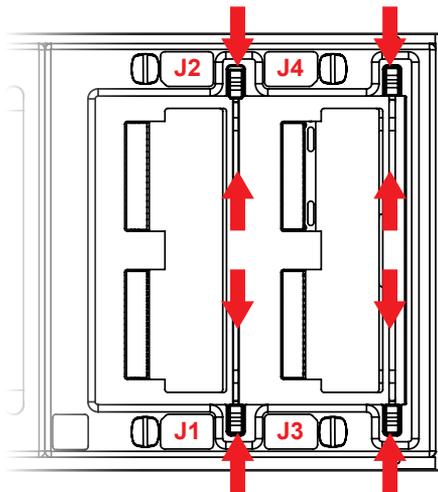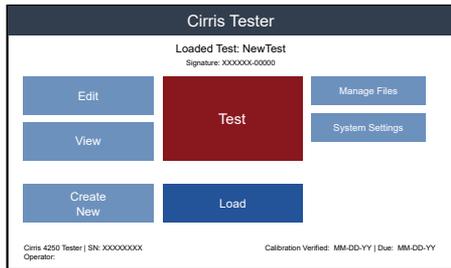
Create New Test Program

Before a cable can be tested, a test program must be created. This is most often accomplished by using the tester's capability to "learn" a sample product. Once a test program has been created, it can be saved and then loaded when needed to test subsequent batches of the same product.
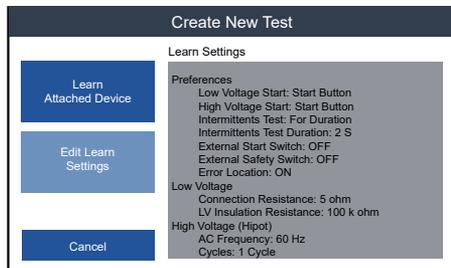
To create a test program using the Learn feature:

1. Install the appropriate adapters.

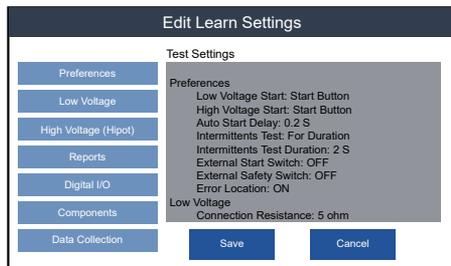2. From the tester's **Main Menu**, press **Create New**.

	Cirris Tester	
	Loaded Test: NewTest	
	Signature: XXXXXX-00000	
Edit		Manage Files
	Test	
View		System Settings
Create New	Load	

Cirris 4250 Tester | SN: XXXXXXXX   Calibration Verified: MM-DD-YY | Due: MM-DD-YY
Operator:

3. Press **Edit Learn Settings** to adjust settings per the cable specifications.

   Note*: Edited learn settings will be saved as the default for subsequent learns until they're edited again.*

Create New Test

Learn Settings

Learn Attached Device

Edit Learn Settings

Cancel

Preferences
Low Voltage Start: Start Button
High Voltage Start: Start Button
Intermittents Test: For Duration
Intermittents Test Duration: 2 S
External Start Switch: OFF
External Safety Switch: OFF
Error Location: ON
Low Voltage
Connection Resistance: 5 ohm
LV Insulation Resistance: 100 k ohm
High Voltage (Hipot)
AC Frequency: 60 Hz
Cycles: 1 Cycle

4. Using the category options on the left side of the screen, adjust the learn settings to match your cable's specifications

Edit Learn Settings

Test Settings

Preferences
Low Voltage
High Voltage (Hipot)
Reports
Digital I/O
Components
Data Collection

Preferences
Low Voltage Start: Start Button
High Voltage Start: Start Button
Auto Start Delay: 0.2 S
Intermittents Test: For Duration
Intermittents Test Duration: 2 S
External Start Switch: OFF
External Safety Switch: OFF
Error Location: ON
Low Voltage
Connection Resistance: 5 ohm

Save   Cancel

Preferences:

- Set the low voltage start condition (and high voltage start condition if using a 4250 tester). Set the desired Intermittents Test parameters and decide whether to prompt the operator to enter a Lot ID.

Low Voltage:

- Set the maximum acceptable connection resistance and the minimum insulation resistance (isolation resistance).

High Voltage (Hipot) on 4250 only:

- Set hipot voltage, minimum insulation resistance, and dwell time. If needed, **Advanced Settings** can be accessed to adjust dielectric withstand test parameters separately.

Reports:

- Select reports/labels and configure print settings. Reports/labels are not added to a test program by default.
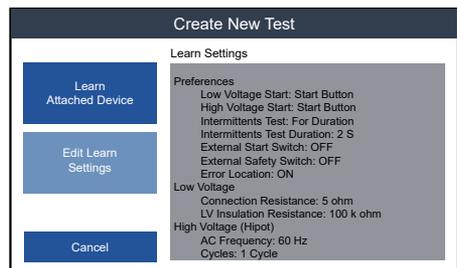
Digital I/O:

- The testing process can be automated by including Digital I/O in the test program. See the *4200 User Manual* for information on the topic.

Components:

- Designate which components, if any, are included in the DUT. Options include resistors, capacitors, diodes and twisted pairs. Adding a 4-Wire component will trigger the tester to identify 4-Wire pairs in the test fixture before learning the DUT.

Perform a Learn

1. After making any required changes to the Learn Settings, select **Save** to return to the **Create New Test** screen. Attach the sample DUT and press **Learn Attached Device**. The tester will scan the DUT and create a test program.

2. After the learn is complete, the tester will display the test program on the **Verify and Save Learned Test Program** screen. Review the program and verify that the settings are correct and that the connections and any components match the documentation for the DUT.

Create New Test

Learn Settings

Learn Attached Device

Edit Learn Settings

Cancel

Preferences
   Low Voltage Start: Start Button
   High Voltage Start: Start Button
   Intermittents Test: For Duration
   Intermittents Test Duration: 2 S
   External Start Switch: OFF
   External Safety Switch: OFF
   Error Location: ON
Low Voltage
   Connection Resistance: 5 ohm
   LV Insulation Resistance: 100 k ohm
High Voltage (Hipot)
   AC Frequency: 60 Hz
   Cycles: 1 Cycle

Saving Test Programs

After verifying that the test program is accurate, save the program using one of the two options:

Save

By pressing **Save**, the tester will name the test program "NewTest.wir" and will store it in a default location. The next time a Learn is performed, selecting **Save** will overwrite the test program saved in the default location.

Save As...

By pressing **Save As**, you will be able to select a storage location and name for the test program.

1. Navigate to a location within the directory to save the test program. If you are using Cirris Hub Software, saving files to the network location (F:) will allow other networked testers to use the test program also.

    Note: *The selected location will be the default the next time you load or save a test program.*

Manage Files

C:\

NewTest.wir

New Folder

Delete

Copy / Move

Done

*Double tap folder to open
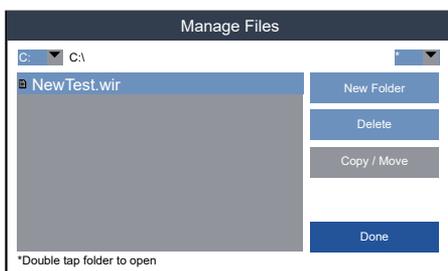
2. To name the new test program, select **New...,** type in a name for the program and press **Done**.

Load a Test Program

From the **Main Menu**, press **Load**. Navigate to the appropriate directory by selecting a drive from the top left drop-down box. Open a folder by tapping on it twice. To go back, double-tap the folder with the trailing two dots (..).

When the desired test program has been located, select it and press **Load**. The name of the loaded test program will appear at the top of the **Main Menu**.

Test

1. From the **Main Menu**, check that the correct test program is loaded and press **Test**.

2. Depending on your Start Condition, either attach a cable to start the test automatically, or attach a cable and press **Start Test**.

3. The low voltage testing is initiated and may take less than a second to complete.

4. (For 4250 tester only) If the low voltage portion of the test passes, the high voltage (hipot) test window will open and the test will begin depending on the start condition. If the low voltage portion of the test fails, the test will terminate.
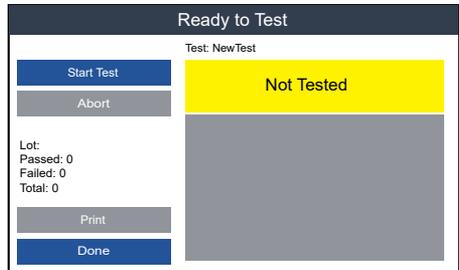
5. If an intermittents test was programmed, it will begin after the test passes on a 4200 tester and after the high voltage test passes on a 4250 (if a hipot test was programmed). Flex the cable to check for intermittent errors. The test will end depending on the intermittents test settings.

6. If the test passed, the header will turn green and display "Passed." If the test failed, the header will turn red and display "Failed" and the error details will appear in the test window.
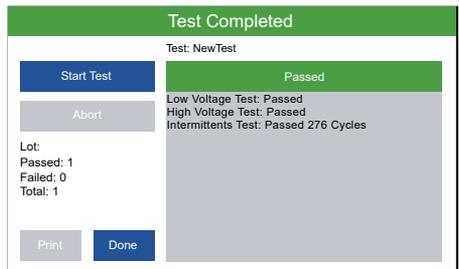
Common Errors

Open Errors: A gap in the intended electrical path.

Short: Unintended contact between two or more points.

Miswire: The wire is terminated to an incorrect contact.

For more information on errors, refer to the *4200 Series User Manual* or cirris.com.

Finishing a Test

When the test is complete, disconnect the DUT from the tester. The test screen will reset and be ready for the operator to connect another cable, or press **Done** to return to the **Main Menu**.

If a report was added to the test, it will either print automatically when the DUT is disconnected or the operator can press **Print**.

Safety Warning

Cirris 4250 high voltage (hipot) testers limit current and energy to make the testers safe for operators. However, an individual wearing a cardiac pacemaker, an insulin pump, or any electronic controlled medical device should NOT perform high voltage testing. For more information on high voltage safety, see the user manual and visit www.cirris.com/safety.

Help / Support

For assistance with your Cirris test system:

- Visit www.cirris.com/learning-center to read articles on Cirris products and other testing subjects.

- In the USA, contact our technical support team: 800-441-9910, ext. 666 (or ask for Tech Support).

- Outside the USA, call 801-973-4600 or visit www.cirris.com to find the Cirris office nearest to you.

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