
Demo 2: Guided Build and Test

You can use Smart-Adapter cables to do guided build and test.

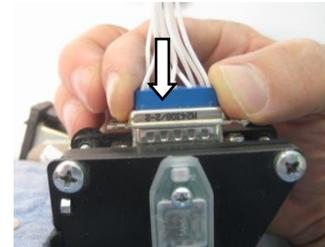
Prepare to do guided build

Step 1

Make sure connectors J2 and J3 are fully connected.



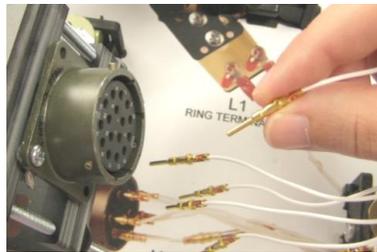
Connector J2
firmly push in and twist
until locked



Connector J3
push until seated

Step 2

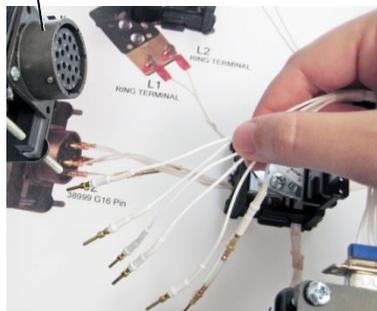
Unplug all the wires from connector J1.



Step 3

Spread the loose wire ends away from each other and away from the metal shell of connector J1.

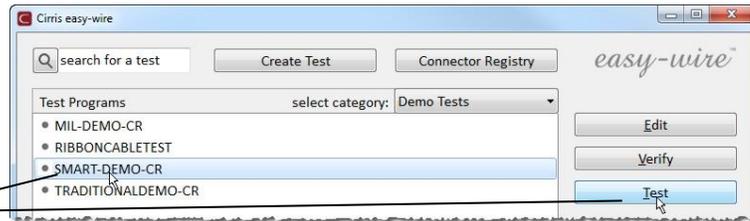
metal shell



Learn to Follow Guided Build Prompts

Step 1

If you have a CR, in the Easy-Wire main menu, select SMART-DEMO-CR and click **Test**.



If you have a CH2, in the Easy-Wire main menu, select SMART-DEMO-CH2 and click **Test**.

Step 2

After the tester finishes scanning the fixturing for smart adapters, the test window displays "Ready to Test". Click **Start**.



Step 3

The View Connectors Window will open. To see the pins more clearly, make sure to enlarge this window as large as possible and move the other window on the screen. If needed, refer to Demo 1 pages 3 and 4.

If you can see the pin letter designations in the displayed connectors, make sure the **Display Pin Labels** boxes are unselected.

The Easy-Wire Test Window displays a from/to test instruction.



LEDs blink green to show the connectors of the from/to test instruction.

J2 (From connector)



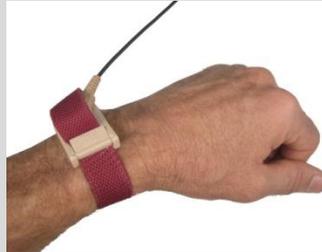
J1 (To connector)



The green dots in the connector image indicate the cavity for the missing wire.



If you attach a wrist strap, the CR tester can sense (through your body's resistance) what wire you touch. This is safe and imperceptible to the operator. The CR tester allows you to use a wrist strap or probe to select wires.



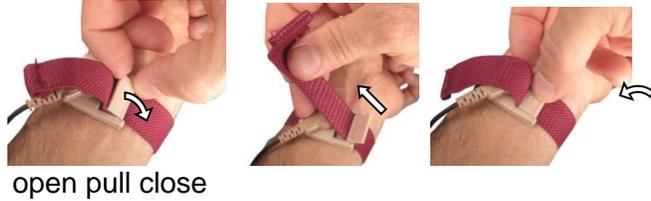
To help guard the operator from receiving a shock, the CH2 tester is limited to the probe only.



Step 4

If using a CR tester, apply and adjust the wrist strap as shown.

- You can put the wrist strip on either hand.
- Make sure to apply the wrist strap snugly.
- You may also want to apply some moisture under the wrist strap and to your finger tips to ensure the wrist strap will function correctly in the next step.



Step 5

If using a CR Tester, use your fingers to touch one of the metal J1 pins. Make sure to not touch the connector shell or other contacts on the harness board.

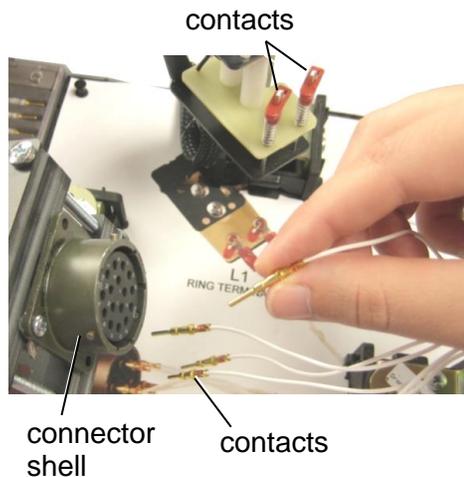
If using a CH2 Tester, touch the probe to one of the metal J1 pins.



You should hear a “tick” sound when the tester senses the wire you touched or probed.

If you don't hear a “tick”,

- Make sure the wrist strap is plugged in.
- Apply moisture under the wrist strap and to your finger tips to help the connection.
- Tighten the wrist strap
- Make sure you are touching the metal of the contact.



Note: If you are using a wrist strap, the tester can identify the pin you're touching through your body's resistance. You can use a probe or heel strap instead of a wrist strap if desired. Later in Demo 4 we will change a setting in the CR Tester so we can use the probe.

Be careful:

- If you touch multiple contacts (pins, connector shell, etc) at the same time, the tester may identify the wrong contact.
- Make sure the other wire ends don't touch each other or the J1 connector housing, because the tester will see this condition as a short.

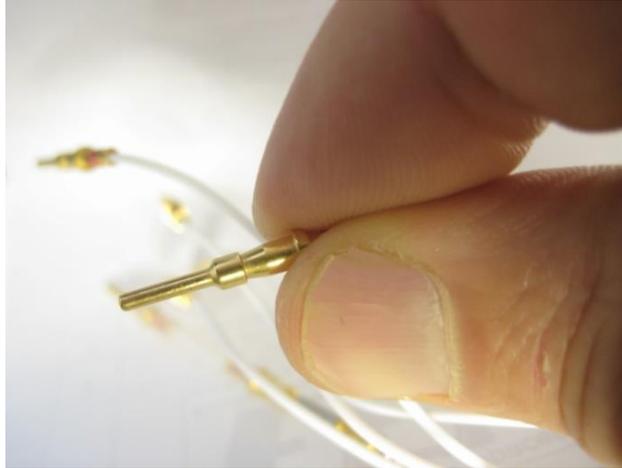
Changing Test Instructions

You can view the from/to wire instructions of each wire to connector J1 by touching or probing each wire individually. Because the mode selected for this test is "Random Build Mode", you can change the "from-to" test instruction by touching or probing pins.

Take a moment to practice touching or probing the pins

Notice each time you touch a different pin:

- In the View Connectors Window, the pin symbols in the connector images change location corresponding to the pin you touch.
- In the Test Window, the wire instructions displayed change corresponding to the pin you touch.
- On the harness board, the LED's of the "from" and "to" connectors are green.



Note: The "from pin" may turn red to indicate when it is currently being probed/touched but will turn green when you stop touching the pin. The "to pin" will always be green.

For example:

In this case the pin that should be inserted into J1-J was touched.

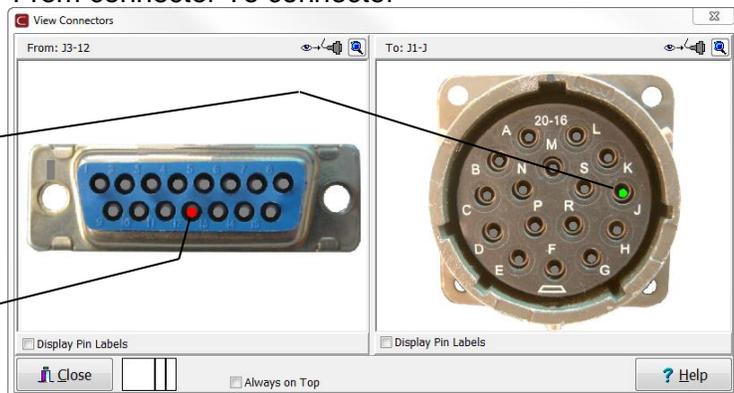
The View Connectors Window changes to show the "To" connector J1-J position green.

The "From" connector position (J3-12) would turn red since you would be touching or probing the wire that runs to this position. As in the note above, when you stop touching or probing the wire, the contact position turns green.

On the harness board the LED's of connectors J1 and J3 blink green.

The Test Window displays the test instruction for the touch/probed wire.

From connector To connector

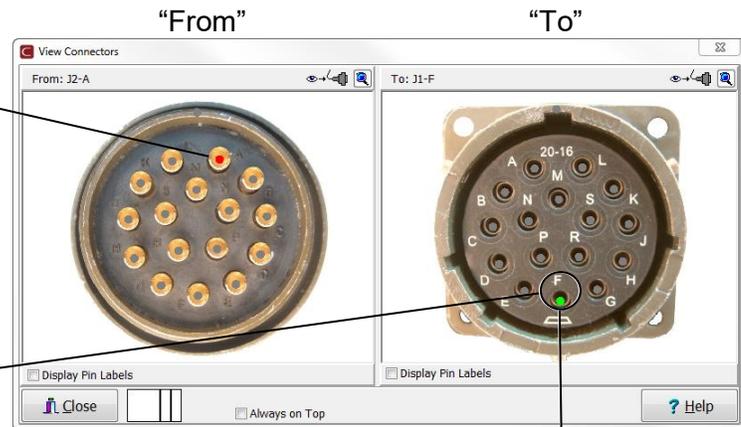


Inserting the Wires

Now let's correctly insert the wires into connector J1.

Step 1

Touch or probe any pin. Note that the pin symbol for the "From" instruction will temporarily turn red while you are actively touching or probing the pin. In this example the "From" pin is J2-A.



Step 2

Insert the touched or probed pin into the "To" pin location shown with a green symbol. In this example the "To" pin location was J1-F.



If you insert the pin in the correct position, you will hear a "bing" sound.



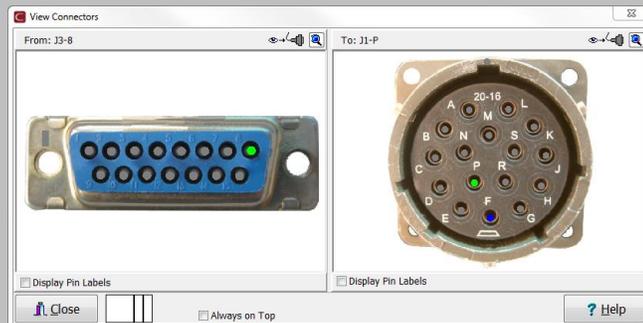
If you insert the pin in the wrong position, you will hear an "error" sound, the connector



LED's blink red, and the test window will turn red.

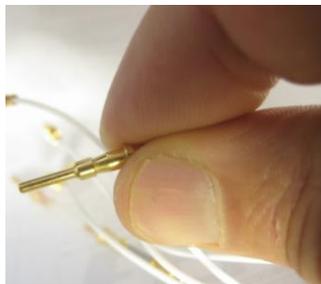


Note: Once the pin is inserted in the correct position the inserted pin location turns blue, and the "from-to" pins locations for the next test instruction are displayed in green. In this example the inserted pin was J1-F.



Step 3

Touch or probe another pin to see where it should be inserted in the connector. Make sure you hear a "tick". The "tick" tells you the tester sensed the pin and thereby displays the "to-from" information for the pin. Insert this pin as shown in the "To connector" image.



Step 4

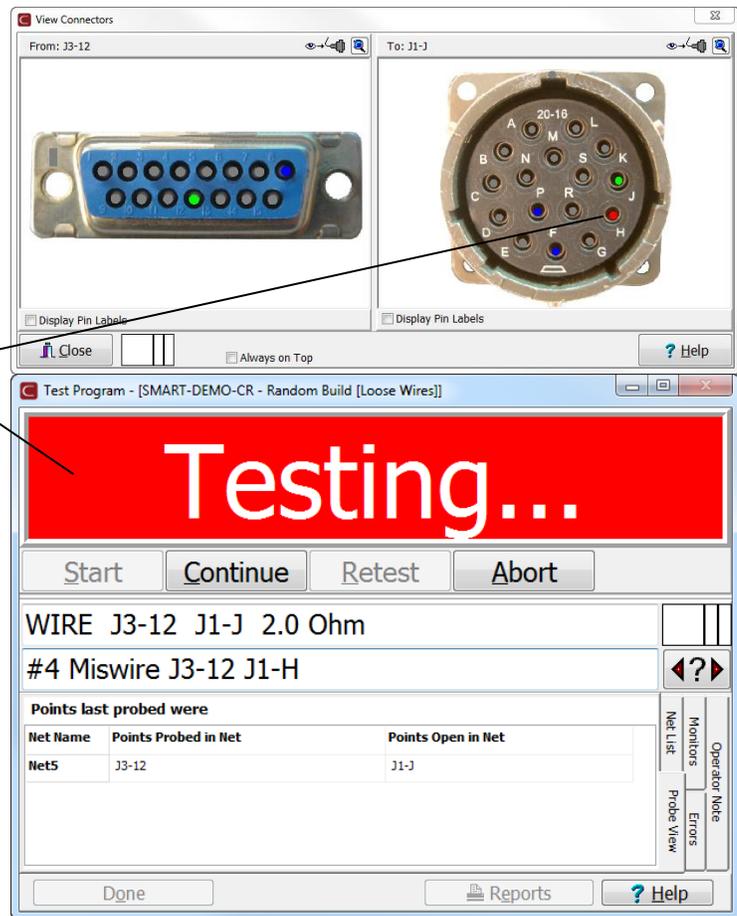
Touch or probe another J1 wire, and purposely make a wrong connection.

 You will hear an “error” sound indicating the miswire.

 LED’s of the “to-from” connectors blink red.

The test window and pin symbol turn red.

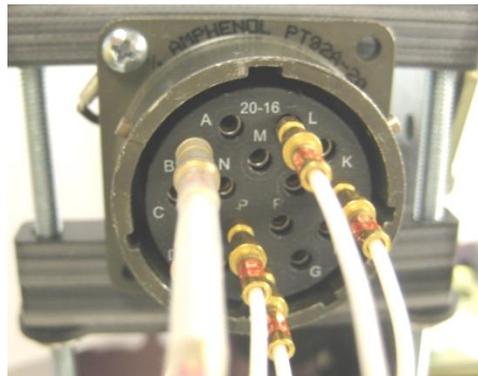
In this example, the connector image and test window indicate that the pin that should go to J1-J is miswired to J1-H.



Building a harness with the Easy-Wire software helps you catch errors as they occur, saving rework time and scrap parts.

Step 5

Continue touching/probing and inserting all the remaining J1 pins.



Step 6

If you have a CR, the test system should pass.



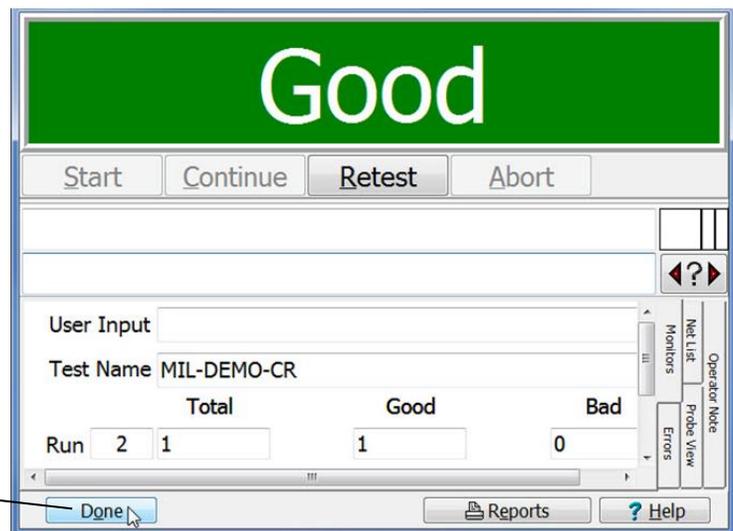
If you have a CH2, click **Hipot** to complete the test.

The test system displays "Good" and makes the good cable sound.



Step 7

Click **Done** to return to the main menu.



You may remove the wrist strap.



Congratulations! You just used the Easy-Wire test system to assemble and test your first cable.

Note: This assembly was built using **Random Build Mode [Loose Wires]** which allows the operator to assemble harness in the order they choose. You can also set up the test using **Sequential Build Mode**, which requires the operator to assemble the cable in a pre-defined order. We recommend using **Sequential Build Mode** for larger connectors that have tightly spaced contacts.

