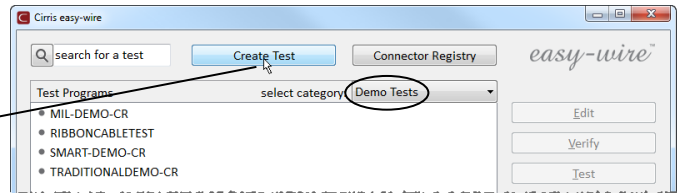

Demo 3: Learn/Create a Test Program

A test program contains all the information to tell the cable tester how to test a particular cable assembly. Smart-Adapter cables make it faster to setup a test program. In this demo we'll see how fast we can set up a test program like the one used in Demos 1 and 2. Since we have a demo harness, we will auto learn it.

Learn the Demo Harness

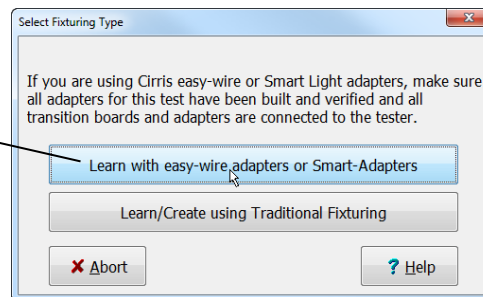
Step 1

In the Easy-Wire main menu, make sure the category is still set to **Demo tests**, then click **Learn/Create Test Program**.



Step 2

In the "Select Fixturing Type" window, click **Learn using Easy-Wire or Smart Light Adapters**.



The Test Program Editor opens in the background.

Each of the smart adapters were discovered and assigned default reference designators.

The "Learn an Attached Device" window opens.

In this window we can set the resistance levels for the learned device.

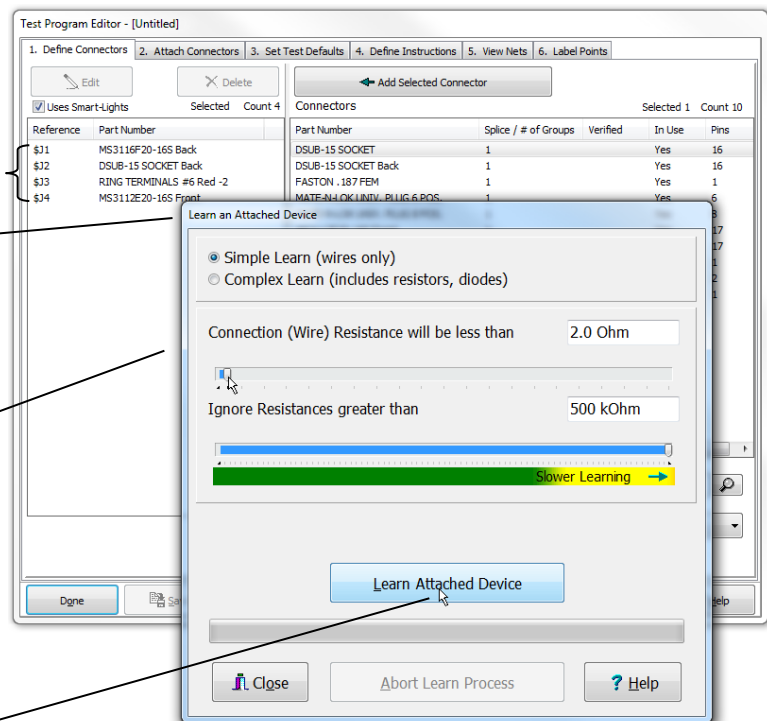
Step 3

Drag the slider so wires with less than 2.0 Ohm resistance will be learned and tested good.

You can fine tune this value by clicking to the left or the right of the slider, or by using the left-right arrow keys on your keyboard.

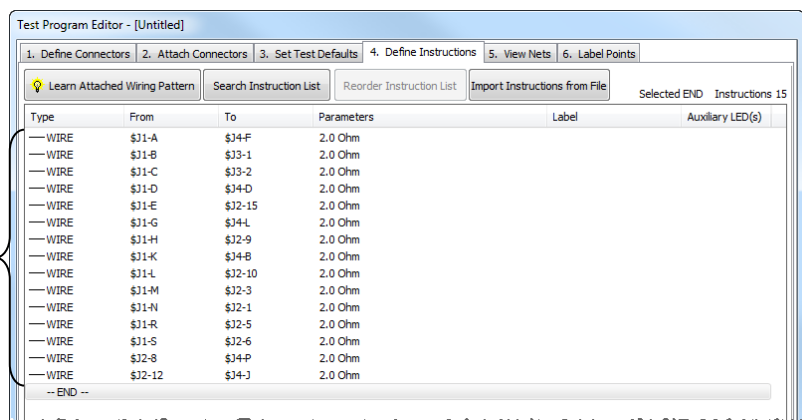
Step 4

Click **Learn Attached Device**.



Just that fast, the tester created all of the from-to wire instructions for the wires of the demo harness.

Note, at the top of the Test Editor there are six tabs. We will use some of these tabs to setup the test program. The **Define Instructions** tab is active.



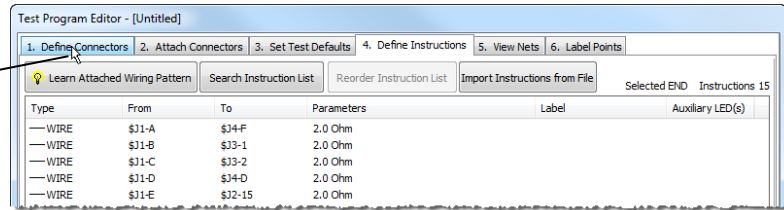
Note: The Easy-Wire software allows you to setup password security so that only those who are authorized can create and modify test programs.

Changing the Reference Designators

Reference designators are the letter-number abbreviations - like J1, J2 and so forth - which allow you to identify the connectors on the harness board. Although from-to instructions have been learned, the tester used default reference designators. We'll now change these reference designators to the reference designators used on the harness drawing.

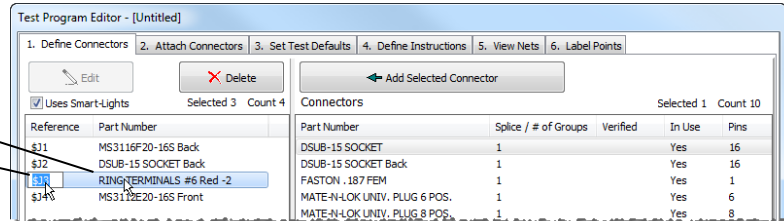
Step 1

Click the **Define Connectors** tab.



Step 2

In the connectors list click to select the line with **RING TERMINALS #6 Red - 2**, then click once more on this line (a slow click). This will allow you to edit the reference designator field.

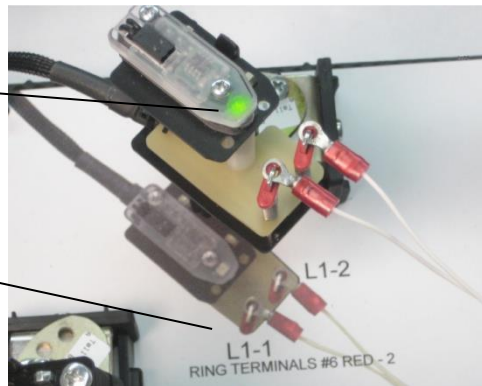


Notes:

- If you make the clicks too fast, Windows will interpret a double-click and the connector graphic will open. If this happens, close the connector graphic and try again.
- When you do the demo, RING TERMINALS #6 Red-2 may not show up first in the list as shown above. The tester scans the header strip left to right. The first adapter found is first in the list and is assigned \$J1. The next adapter found is second in the list and assigned \$J2, and so forth.

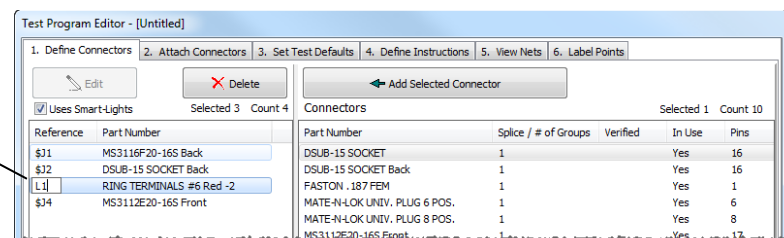
Note the Smart-Adapter for the ring terminals lights green.

Note on the harness board, the ring terminals have the reference designator L1.



Step 3

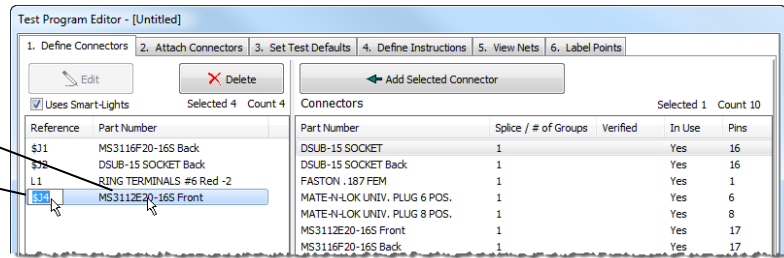
Type L1 for ring terminal reference designator.



Step 4

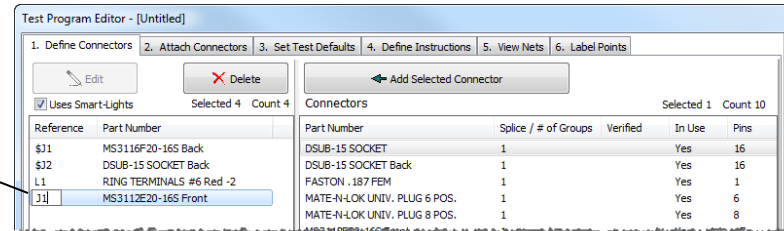
Click on the line
MS3112E20-16S Front,
then click again on the line
to allow you to edit the
reference designator.

Again notice this connector's
smart adapter is green.



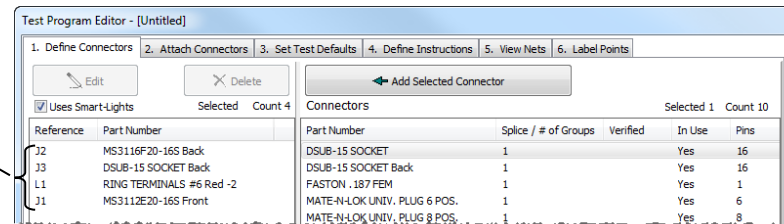
Step 5

Change the reference
designator to J1 as on the
harness board.



Step 6

Change the other reference
designators so they match
those on the harness board.
When complete, the reference
designators should be as
shown.



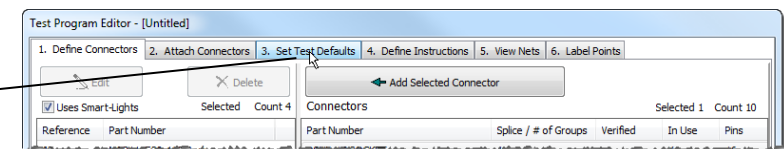
Remember: The order of the connectors in the list may vary depending on where the adapters were plugged into the header strip. Just make sure the correct reference designator is matched with the correct connector name.

Changing Test Settings

We'll make a few more changes to complete the test program.

Step 1

Click on the Set Test Defaults
tab.



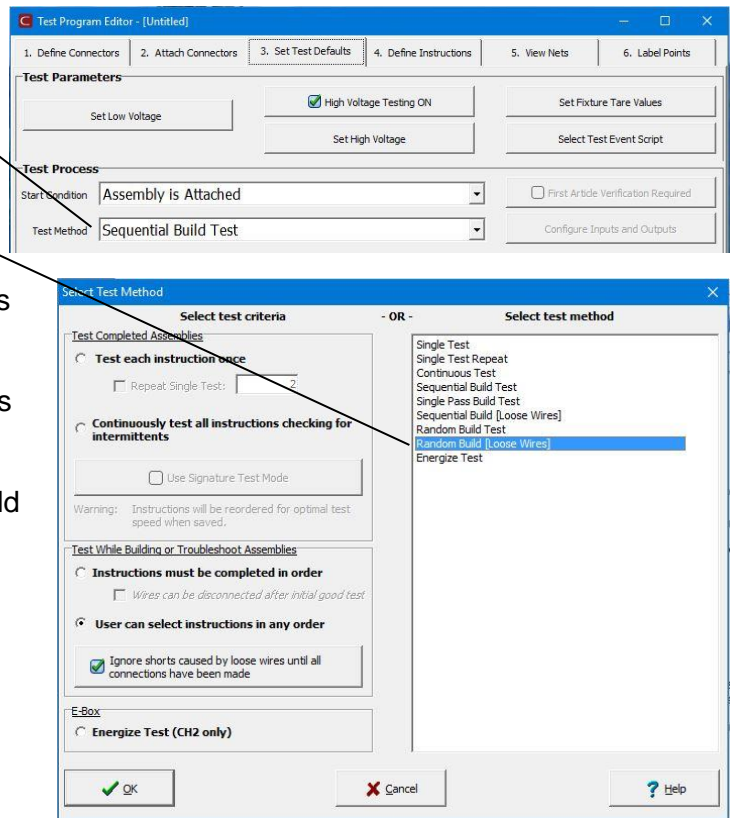
Step 2

Click the “Test Method” drop down list. The Select Test Method window will open.

On the right side of the screen, select **Random Build [Loose Wires]**. The left side of the screen will update to show that this instruction lets the user select instructions in any order while ignoring shorts until all connections are made.

This test method allows you to build a device by touching wire ends as was demonstrated in Demo 2.

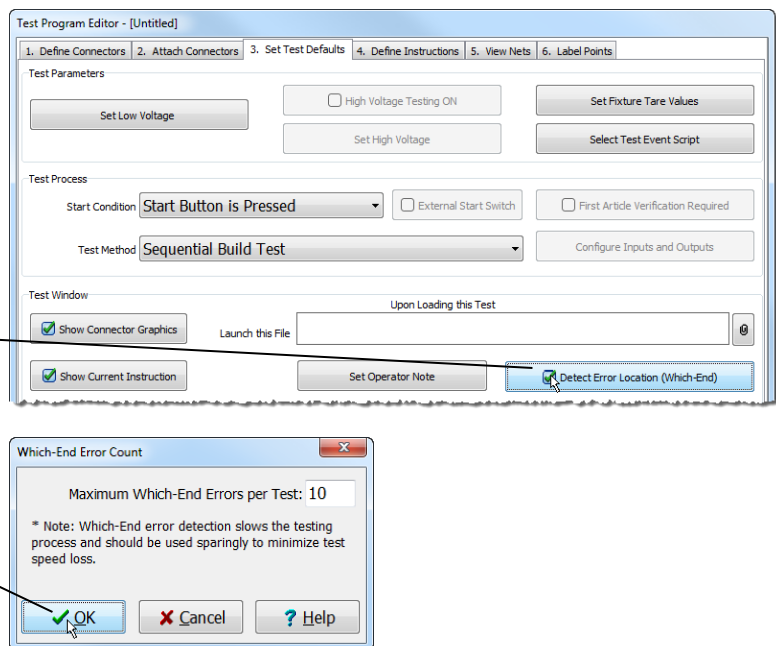
Press OK when finished.



Step 3

Select **Error Location (Which-End)**,

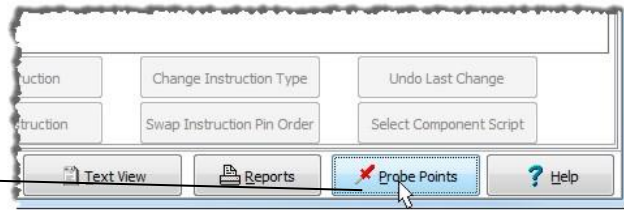
In the Dialog Box that follows click **OK**.



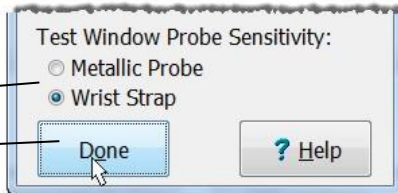
Step 4 (CR)

If you have a CR tester, do the following:

- a. Click **Probe Points**.



- b. The "Probed Point List" window will open. Select "Metallic Probe" or "Wrist Strap" depending on which you will use.

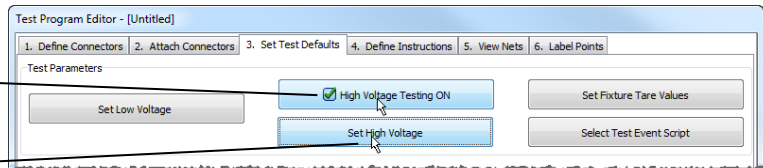


Click **Done**.

- c. Skip to "Completing and Saving the Test Program" on page 6.

Step 4 (CH2)

If you have a CH2 Tester, ensure that "High Voltage Testing ON" is selected, and click **Set High Voltage**.

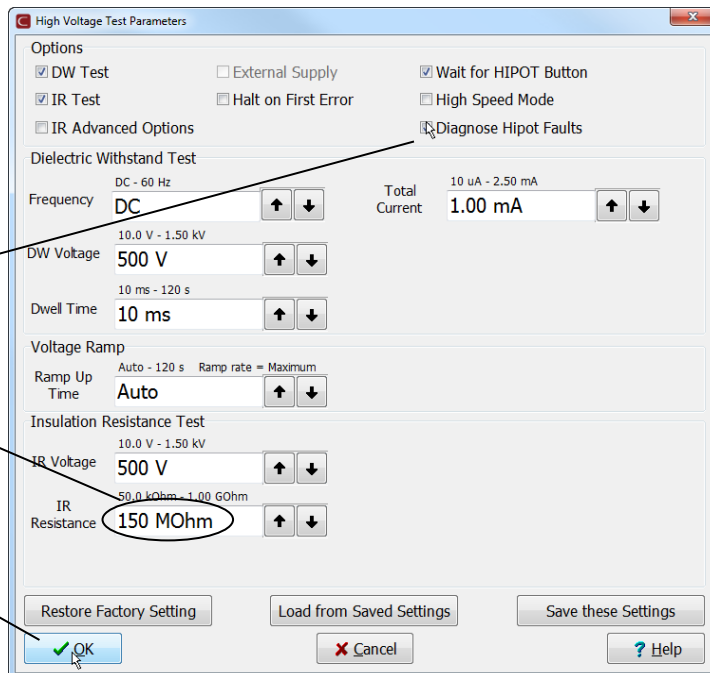


This window is where you set your HV test parameters. We need to change a few settings so this test program can be used later in Demo 6.

Step 5 (CH2)

Click to select **Diagnose Hipot Faults**.

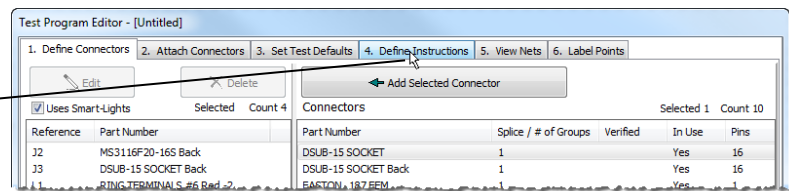
In the "IR Resistance" text box, type **150 MOhms**, and click **OK**.



Completing and Saving the Test Program

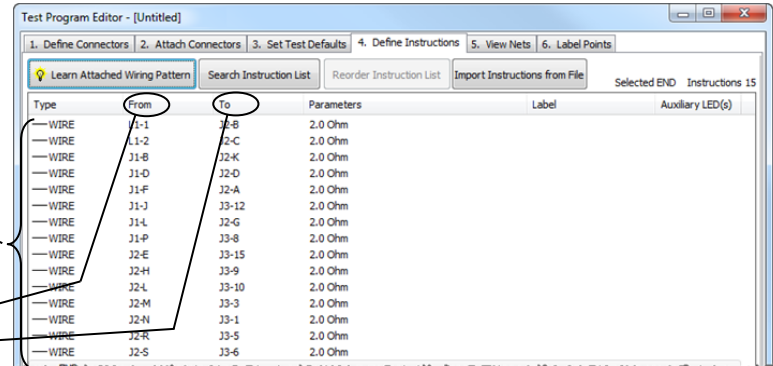
Step 1

Click the **Define Instructions** Tab.



In this list we can see all of the test instructions that were created for the wires in the demo harness.

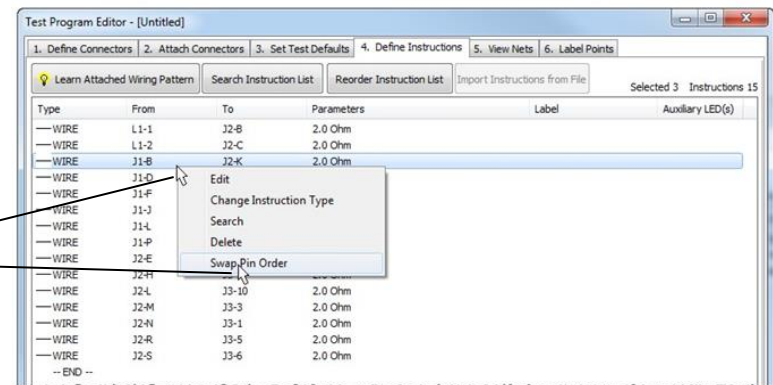
Note there is a "From" column, and "To" column.



You can change the from-to order of an instruction by simply right clicking on the instruction line, and clicking **Swap Pin Order**. By holding the control or shift key down, you can select multiple instructions at once to swap.

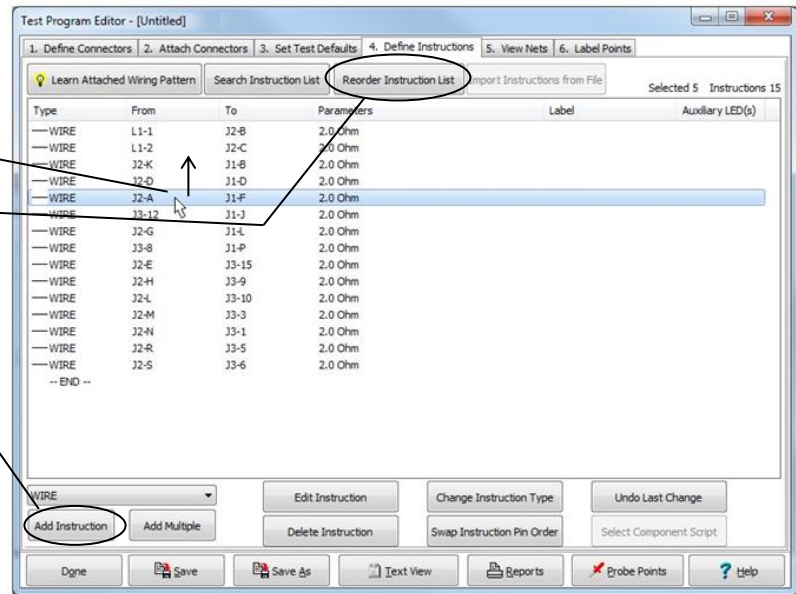
Step 2

Since in this demo the operator will pin the J1 connector, change all J1 instructions so that J1 is in the "To" column.



You could also:

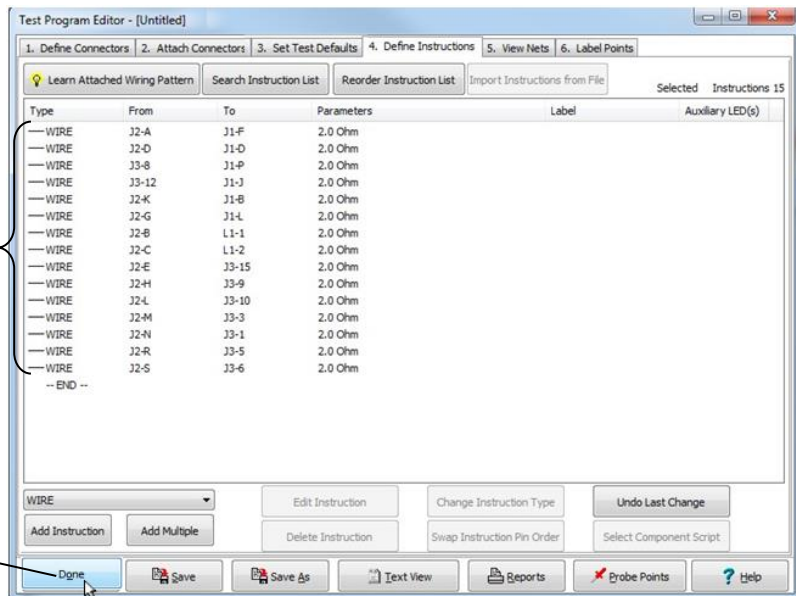
- Change the order of test instructions by simply dragging a test instruction in the list, or by using the **Reorder Instruction List** button.
- Add unlearned instructions using the **Add Instruction** button in this folder.
- Use from-to data previously generated from another program (schematic, harness layout, etc).



Important:

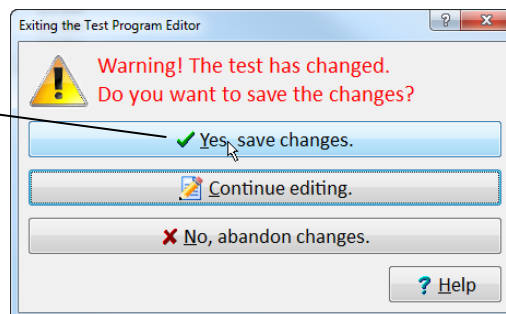
If this were not a demo, you would check the completed list with your harness documentation to make sure you created a correct test program.

Step 3 Click **Done**.



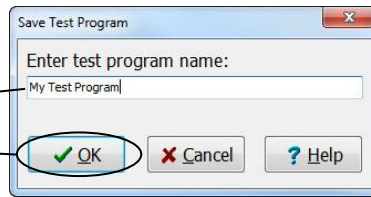
Step 4

Click **Yes**, save changes.



Step 5

Enter "My Test Program" as your test program name and click **OK**.



Congratulations! You've now set up your own test!

Try out your test or continue to "Demo 4: Create a New Connector".