

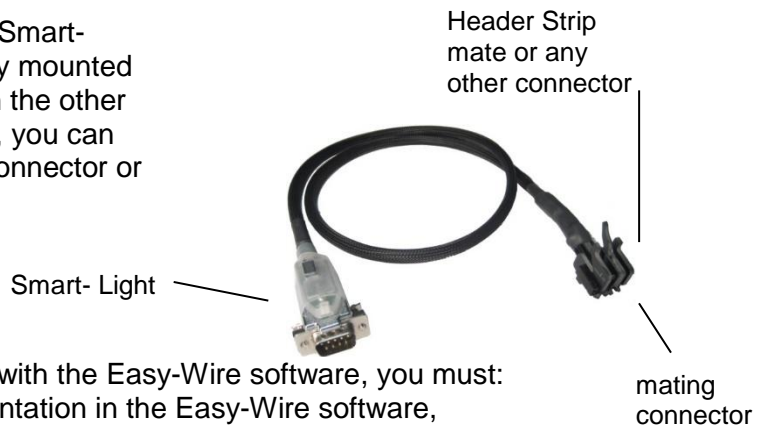
Demo 4: Setup to use a Smart-Adapter Cable

You can make a Smart-Adapter once, and then use it over and over where you need it.

In this part of the demo we will show how to setup a Smart-Adapter Cable so it can be used with the Easy-Wire software.

A Smart-Adapter Cable has a Smart-Lights device, which is typically mounted near the mating connector. On the other end of a Smart-Adapter Cable, you can use the Header Strip mating connector or any other connector.

Smart-Adapter Cable



To use a smart-adapter cable with the Easy-Wire software, you must:

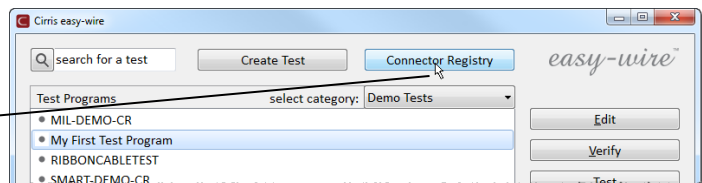
1. Create a connector representation in the Easy-Wire software,
2. Register the adapter cable with the Easy-Wire test system, and
3. Verify the smart adapter cable.

We will do this process for the extra adapter cable supplied with the demo. First, we will create a Connector in the software.

Create a Connector

Step 1

In the Easy-Wire main menu, click **Connector Registry**.

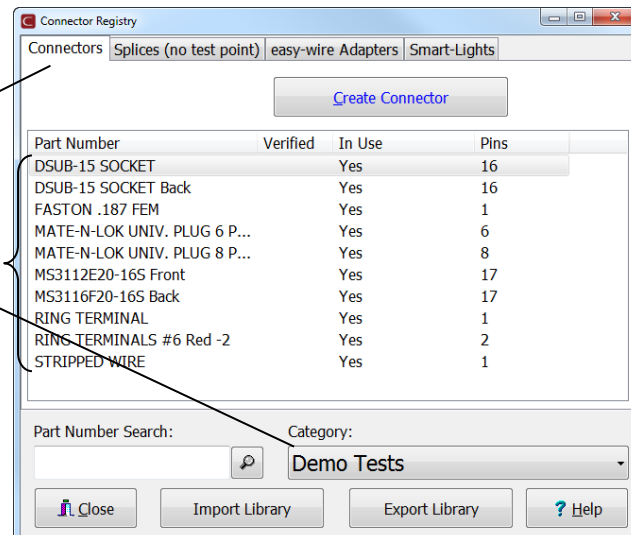


Step 2

In the Connector Registry make sure the **Connectors** tab is selected.

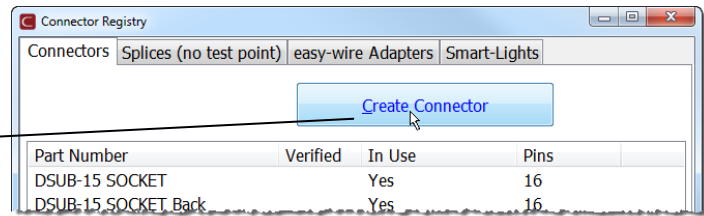
Also make sure **Demo Tests** is selected for the Category.

This list shows connectors previously created in the "Demo Test" category. Categories help organize connectors in the software.



Step 3

Click **Create Connector**.



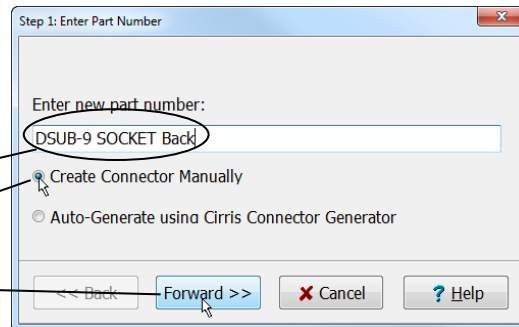
Note, the supplied adapter cable has a 9 pin D Sub male connector. It will mate to a 9 pin D Sub Socket on the device under test.



Step 4

Our connector will represent the back view of a 9 pin D Sub Socket.

Type **DSUB-9 SOCKET Back** for the connector name, click **Create Connector Manually**, then click **Forward**.



Note: Connector names in the Connector Registry can be generic or specific (such as the manufacturer's name or part number) depending on your preference and application. Later we will use the MIL-SPEC part number to auto-generate a connector.

Note, when the Smart-Adapter cable was constructed, a connection was made to the shell as well as to its connector pins.



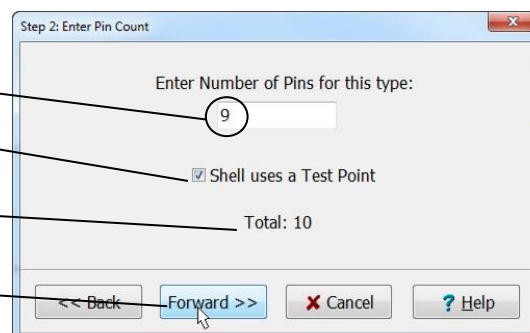
Step 5

Type 9 for the number of pins.

Check the **Shell uses a Test Point** box.

Notice that the total changes from 9 to 10 when you include the shell.

Click **Forward**.



Step 6

Since the pin names in this example are numeric, type **1** and click **Forward**.

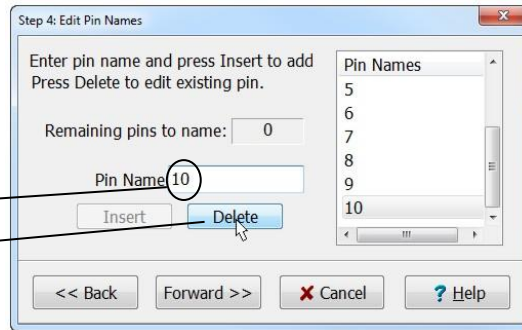


Note: If our connector had lettered pins, you would have typed **a** or **A** for the first pin name.

Step 7

The auto-complete feature inserted all the pin names. However, we want the last pin to be called **SHELL**.

Type **10**,
then click **Delete**.



Step 8

Type the new pin name **SHELL**,
click **Insert**,
and click **Forward**.



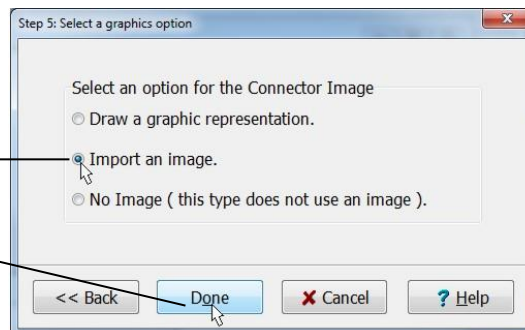
The connector in the software can include a visual representation of the connector. We've previously taken a picture of the back side of the DUT mating connector for this purpose. See the Cirris web site or Easy-Wire help system for more information on taking connector pictures.



Step 9

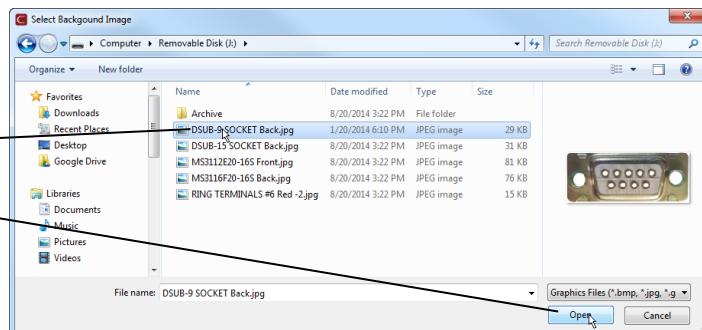
We will import the picture we previously took of our connector.

Click **Import an Image**,
and click **Done**.



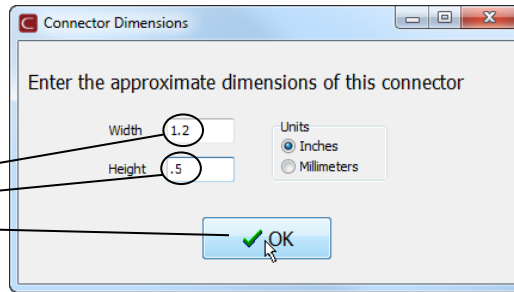
Step 10

Navigate to the thumb drive you received with this demo,
click **DSUB-9 SOCKET Back.JPG**,
and click **Open**.



We've previously measured the width and height of our connector.

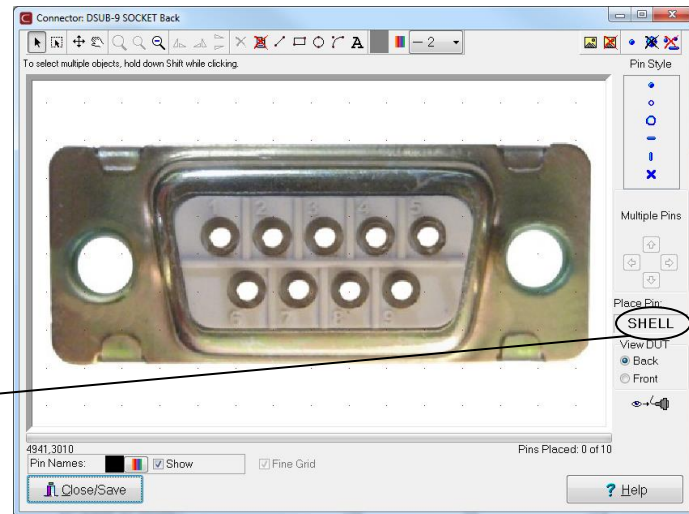
With inches selected enter **1.2** for Width and **.5** for Height, then click **OK**. _____



This is the Connector Editor.
We will identify where the pins
are on this image.

In this example we've used the back view of the connector. This is likely the view an operator would use to pin the connector or perform rework.

Note that **SHELL** is the first pin to place.



Step 12

Click the first pin style, —
then click the shell here.



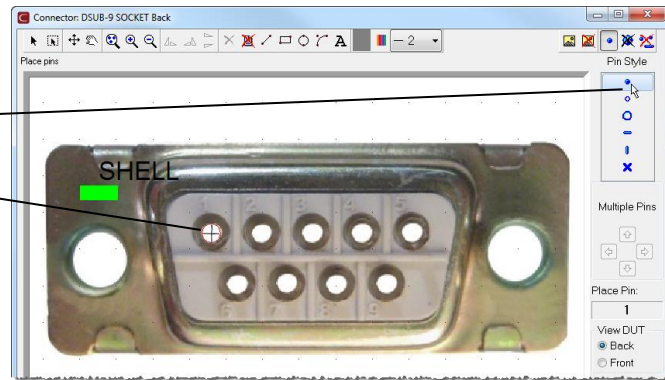
After completing the previous step, note that the symbol on the SHELL turned green.

You are now being asked to identify where pin 1 is on the image.



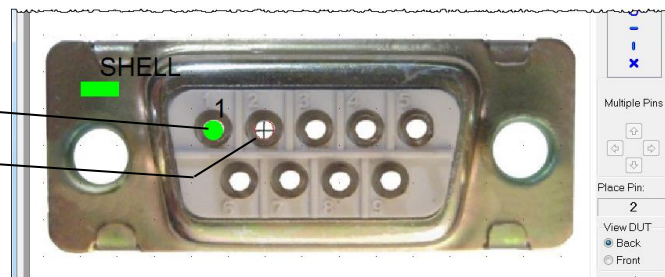
Step 13

Click on this round pin symbol, then click on pin 1.



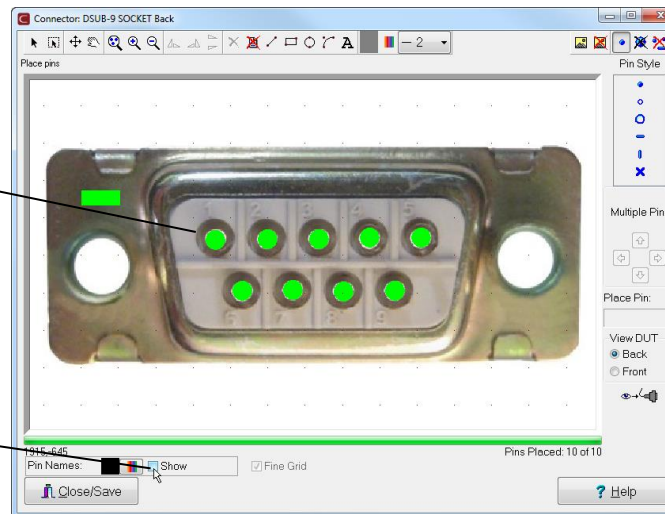
Step 14

Note, pin one is now green. Now click on pin 2



Step 15

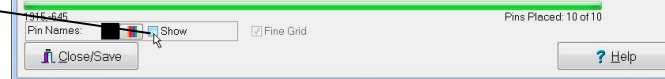
Place the remaining pin locations.



Step 16

Since the pin names are visible on the imported connector image, we can turn off the pin names placed by the software.

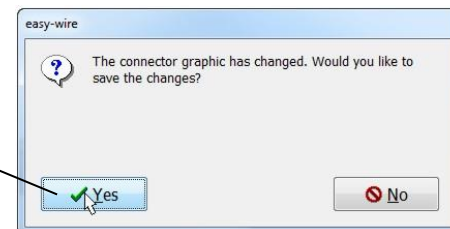
Unselect the Pin Names **Show** check box.



Step 17

To save the connector graphic, click **Close/Save**,

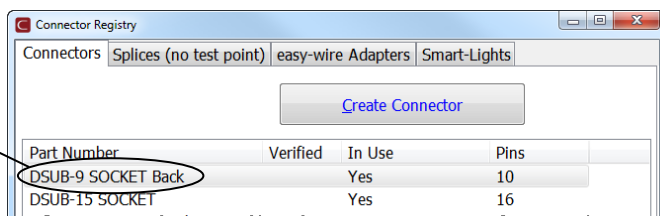
then click **Yes** to confirm the changes.



Congratulations! You have added a new connector to the Connector Type Registry!

Notice that the connectors are in alphabetical order. The connector you created should be the top of the list.

If you wanted to, you could sort the connector list by clicking on any of the column names.



Auto-Generate a Connector

If a connector has a MIL-SPEC part number, you can create it by simply auto-generating it! In the following few short steps, we'll auto-generate the connector we just created.

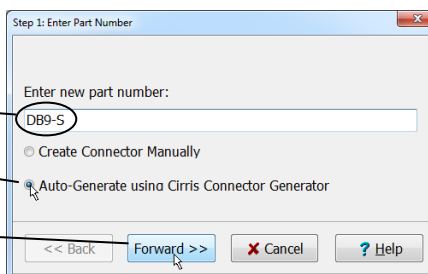
Step 1

In the Connector Registry, click **Create Connector**.



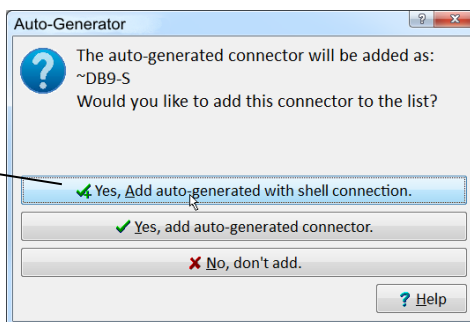
Step 2

In this window enter the connector's MIL-SPEC designation **DB9-S**, select **Auto-Generate using Cirris Connector Generator**, and click **Forward**.



Step 3

Click **Yes, Add auto-generated with shell connection**.

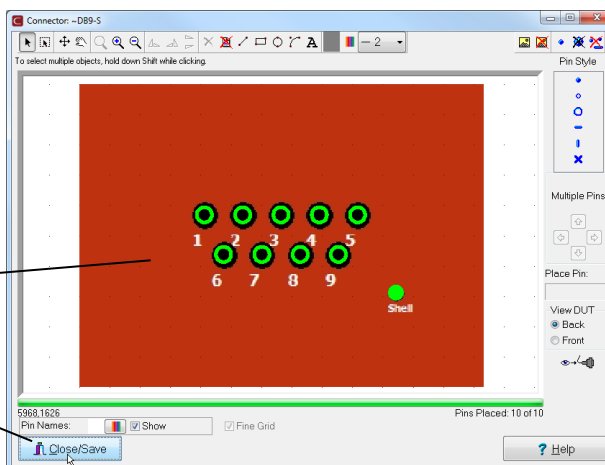


Step 4

That's it! The connector is auto-generated as shown.

Click **Close/Save** to return to the Connector Registry Window.

The connector will now show up as **~DB9-S** in the connector list.

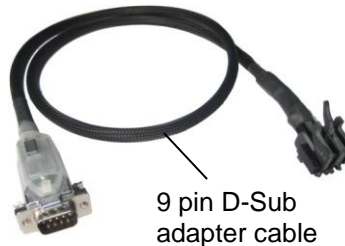


Register the Smart-Adapter

Once a connector is made, you can use it for one or more Smart-Light Adapter Cables that match the connector type. Each smart light adapter must be registered to the Easy-Wire system where it is used. During registration you assign a connector stored in the Easy-Wire system to a unique ID stored in a Smart-Lights device. Additionally, during registration you identify to the test system how a particular Smart-Adapter is wired.

Step 1

Plug the supplied 9 pin D-Sub adapter cable for which we just created a connector into the header strip along with the other smart adapter cables.

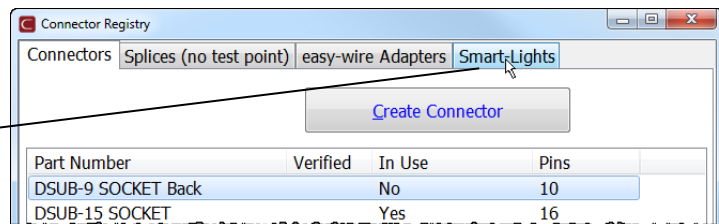


9 pin D-Sub adapter cable

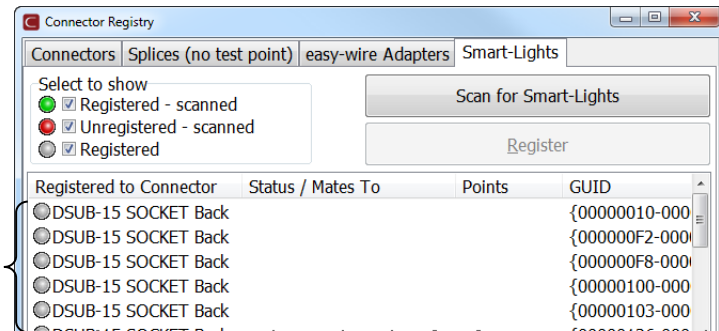


Step 2

In the Connector Registry click on the **Smart-Lights** tab.

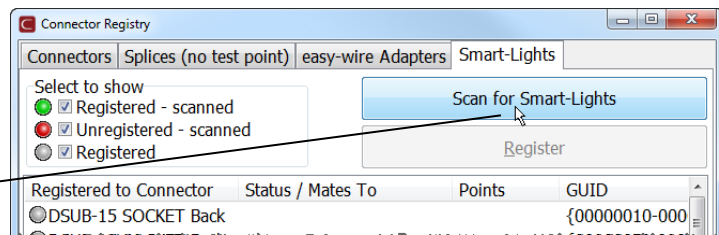


This list shows all of the Smart-Adapters from the Smart-Lights devices registration file we imported before starting the demo. The grey dot shows the registered status.



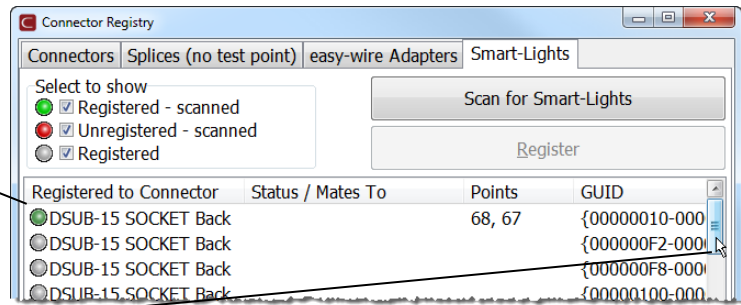
Step 3

Click **Scan for Smart-Lights**.



Step 4

You should now see a green symbol in front of some of at least one of the Smart-Adapter names. A green symbol indicates the adapter was scanned, or in other words, recognized by this test system. Use the scroll bar to view other adapters with a green symbol.

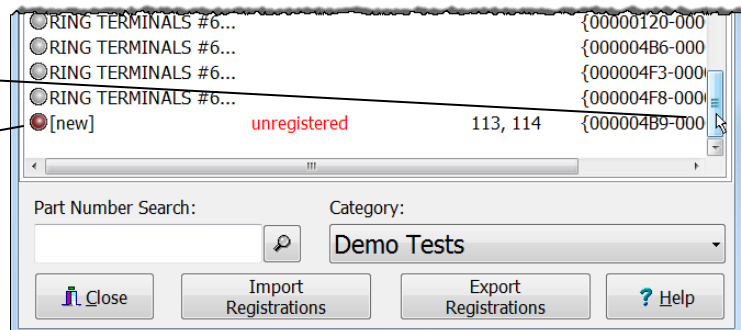


Step 5

Use the scroll bar to move to the bottom of the list.

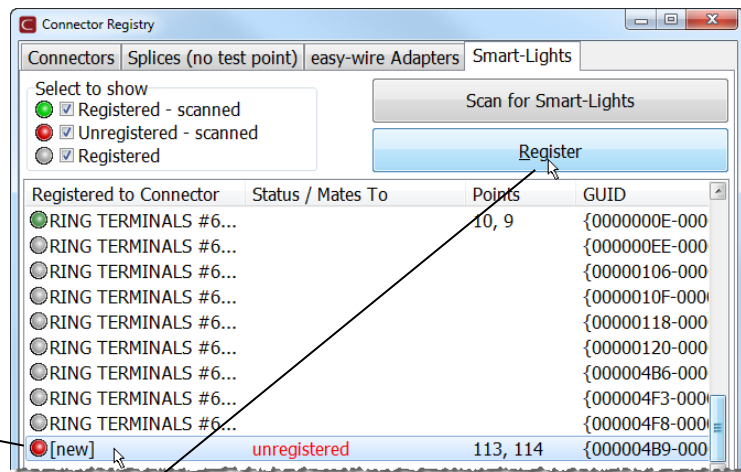
Note that our new adapter now shows up in the list.

The red dot shows it is unregistered on this system.



Step 6

Click on the newly recognized smart light line, then click **Register**.



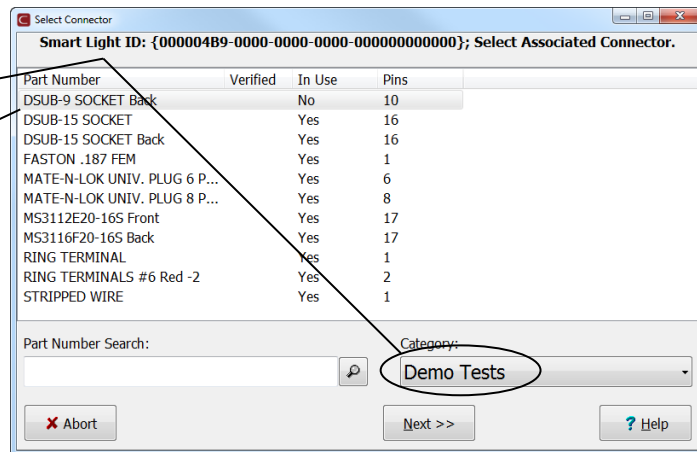
Note: When you clicked on the unregistered Smart-Lights device, it illuminated red.



The Select Connector Window appears.

Make sure **Demo Tests** is selected for the Category.

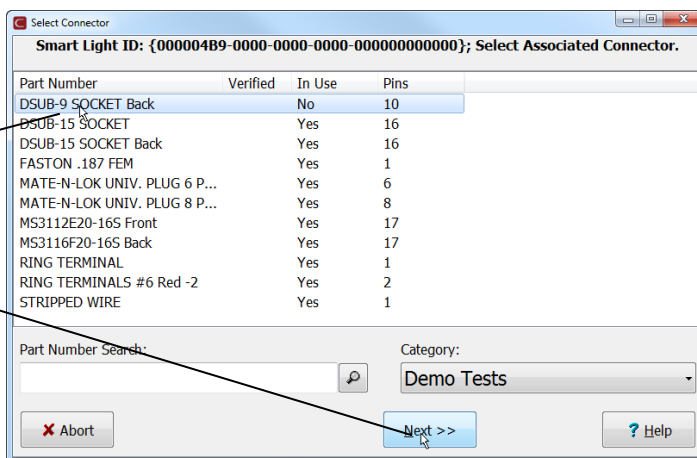
DSUB-9 SOCKET Back should show up near the top of the list.



Step 6

Click on **DUB-9 SOCKET Back**.

Then click **Next**.



This window displays. The tester is asking you to first probe the shell of the connector.

The shell contact location is highlighted red to instruct you to probe the shell.



Step 7

If using a CR tester, remove the wrist strap and insert the probe.

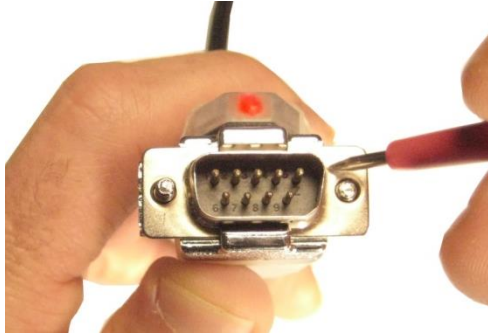
probe



Step 8

Probe the shell of the mating connector on the adapter we are registering.

You should hear a bing.



Notice the shell location is now blue meaning its adapter wiring has been identified.

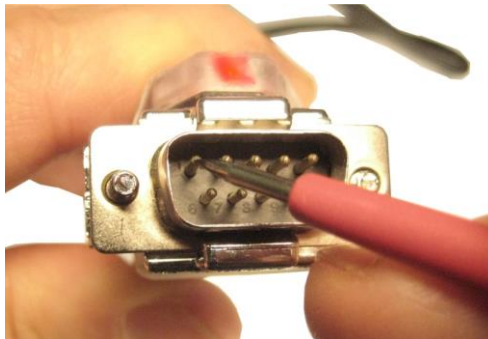
Note that pin 1 is now red meaning it's ready to be probed.



Step 9

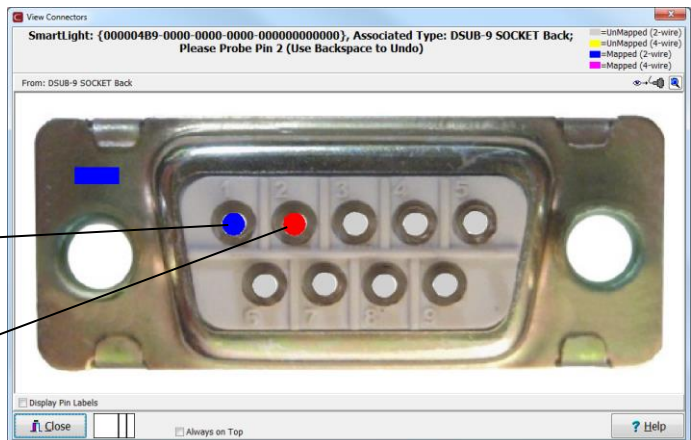
Probe pin 1 on the mating connector.

You should hear a bing when pin 1 is probed.



Pin 1 should now be blue, meaning its adapter wiring is now identified.

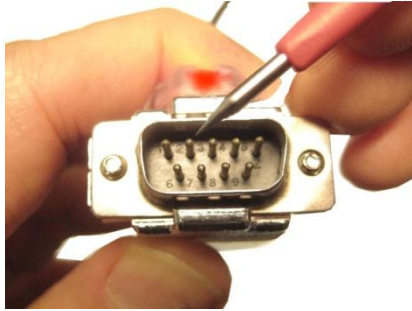
Pin 2 is now ready to be probed.



Step 10

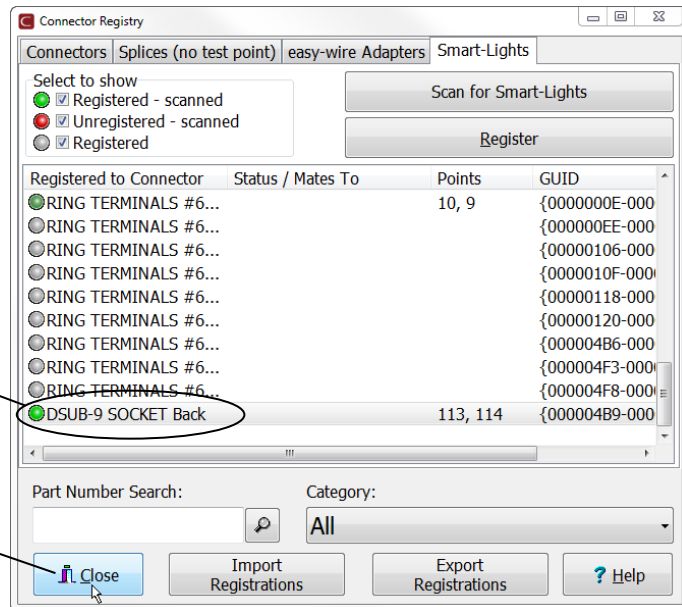
Probe pin 2. Make sure you hear the bing.

In the same manner probe the other pins in order on the mating connector.



After the last pin is probed, you can see the new Smart-Adapter name in the Smart-Adapter list. The Smart-Adapter now has a green symbol next to it.

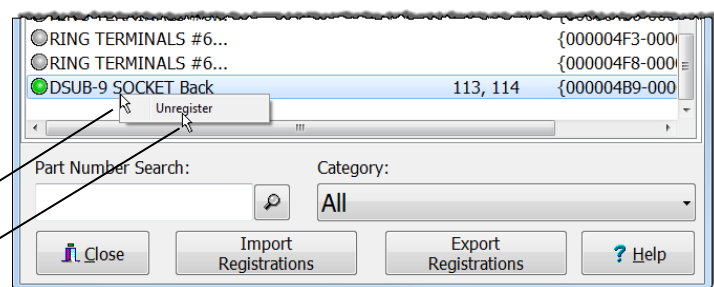
You can now click **Close** to return to the main menu.



Congratulations! The Smart-Adapter Cable is registered. You can now use it on your test system.

Should you want to do the registration process again, you must first unregister the Smart-Adapter Cable.

To unregister the Smart-Adapter cable, right-click on the **DUSB-9 SOCKET Back** line, then click **Unregister**.



Verify the Smart-Adapter Cable

We recommend that you verify each Smart-Adapter that you make before using it to test cables.

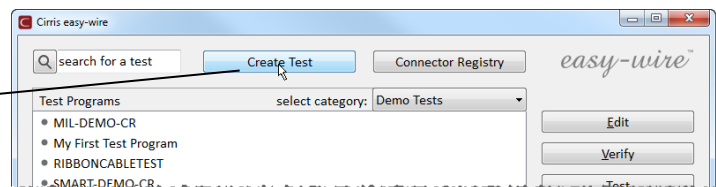
Step 1

Make sure the **DSUB-9 Socket Back** Smart-Adapter cable is plugged into the header strip. You can leave the other adapter cables plugged into the strip.



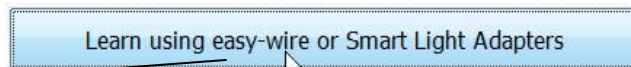
Step 2

In the Easy-Wire main menu, click **Create Test**.

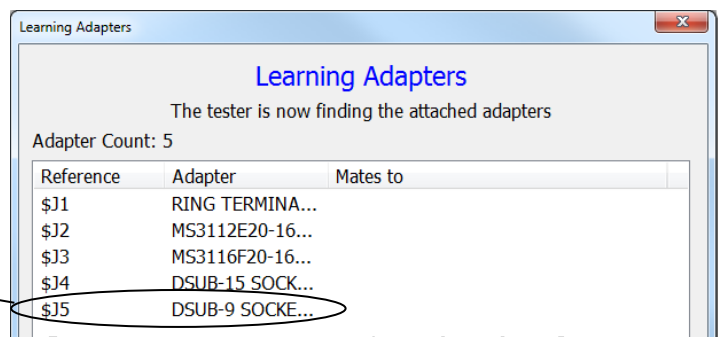


Step 3

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

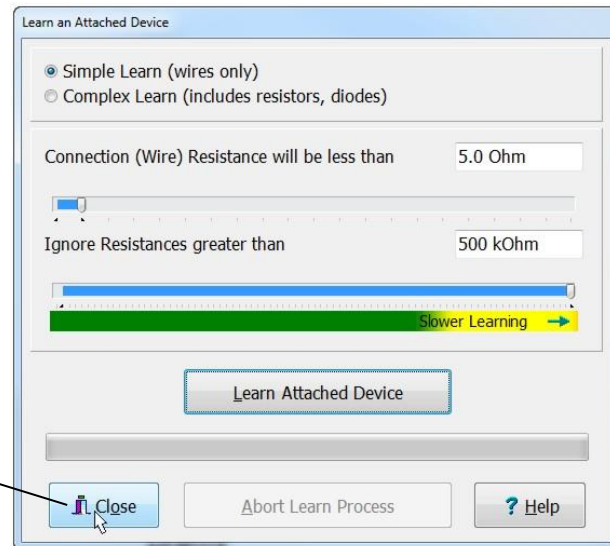


Briefly the Learning Adapters window appears. If we look, we see the adapter we registered shows up in the list.



Step 4

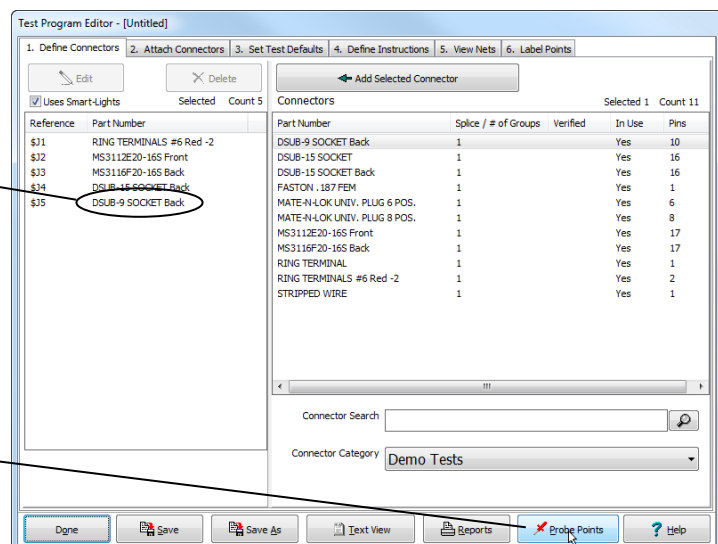
Since we don't need to learn the cable assembly, just click **Close**.



Notice the new adapter shows up in this list.

Step 5

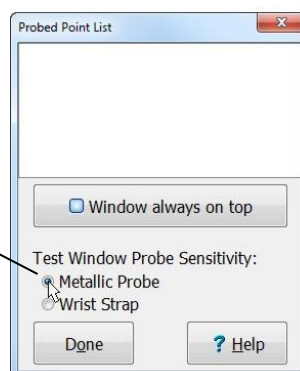
Click **Probe Points**.



Step 6

If using a CR tester, click **Metallic Probe** in the Probe Points window.

Leave this window open as we will now use it to display probed points.



Step 7

If not already plugged in, plug in the probe that came with the demo.



Step 8

Touch the first contact of the mating connector.



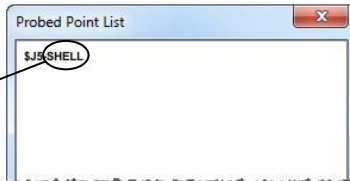
Step 9

In this example the default reference designator is **\$J5**, but may be different on your adapter. The **-1** shows that pin 1 of the adapter is being probed.



Step 10

Probe the other pins of the adapter. When you probe the shell you should see **SHELL** in the Probed Points window.



Step 11

Click **Done** to exit the Probed Points window.

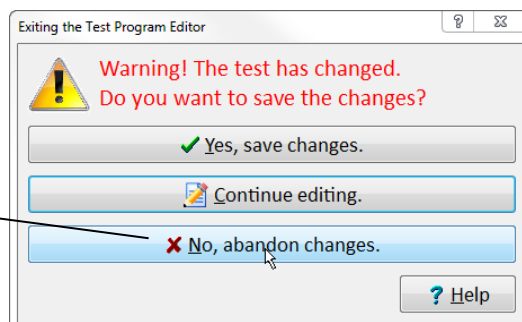


Click **Done** to exit the Test Program Editor to go back to the main menu.



Step 12

Click **No, abandon changes...** to return to the main menu.



Congratulations! You've verified the Smart-Adapter.