

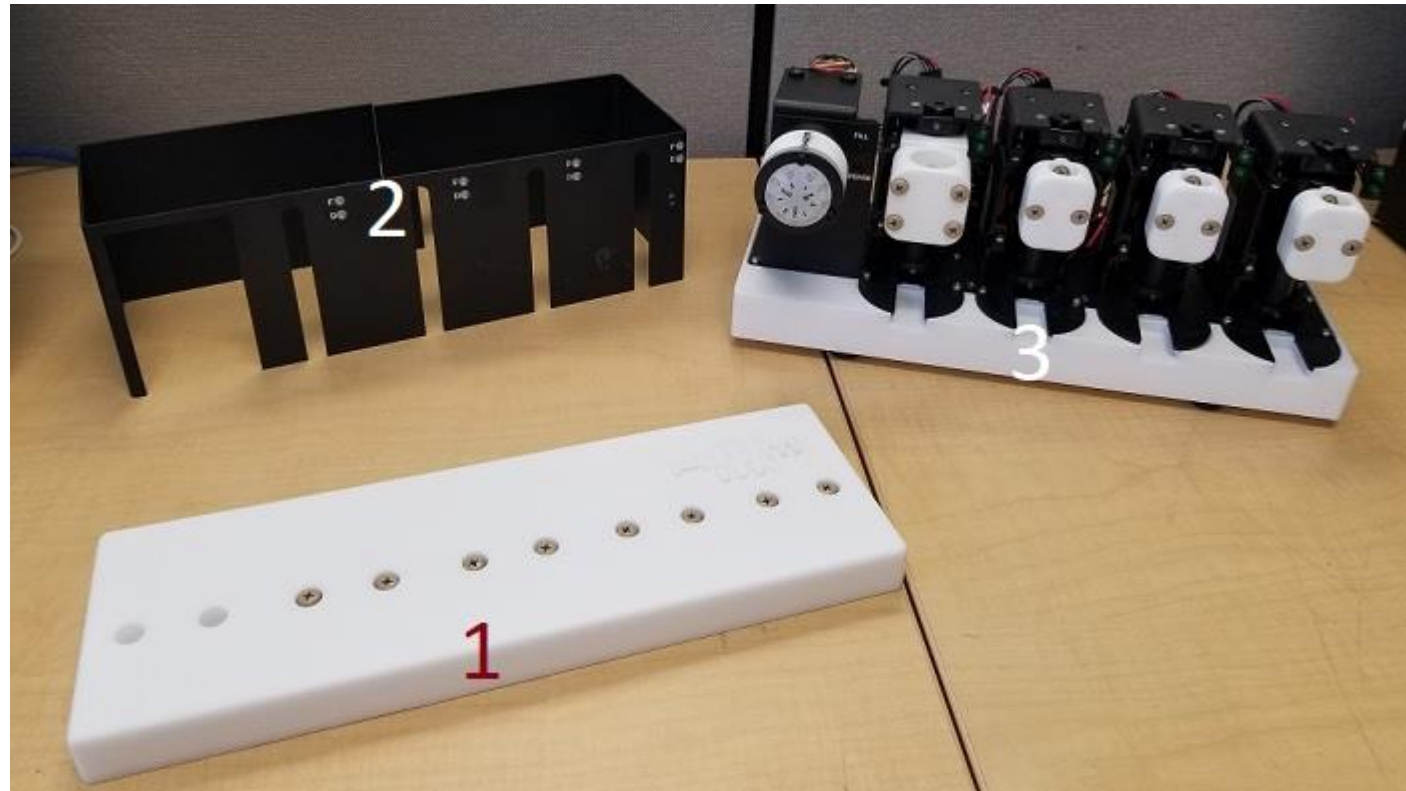


Replacing and Programming a Syringe Assembly Unit.

By Aaron Musfeldt

Removing the Case

1. After powering off the system and disconnecting all cables, remove the white cover.
2. Remove the black case.
3. Disconnect the wires and remove the screws from the syringe assembly that needs to be replaced. Remove the syringe assembly from the module.
4. Fasten the new syringe assembly with the screws and reconnect the wires.



Determine if the syringe is an old or new model

There are currently two styles of syringe modules.

The older modules do not have lights in front.

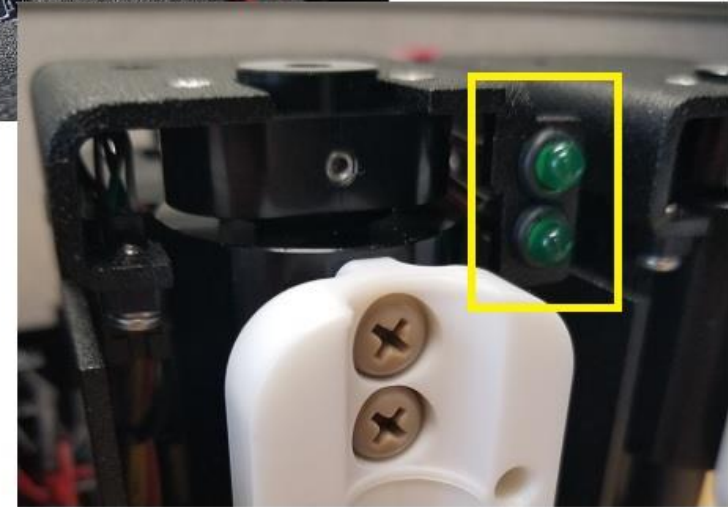
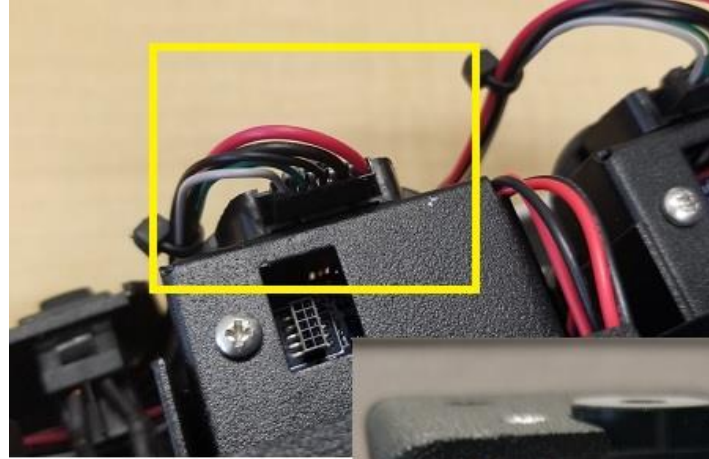
Also, notice how the wire harness connects in the back on the older syringe.



Determine if the syringe is an old or new model

The newer syringe module has lights on the front and the connection for the wire harness is oriented differently.

Once you have determined the type of syringe, you will need to prepare the module for programming.

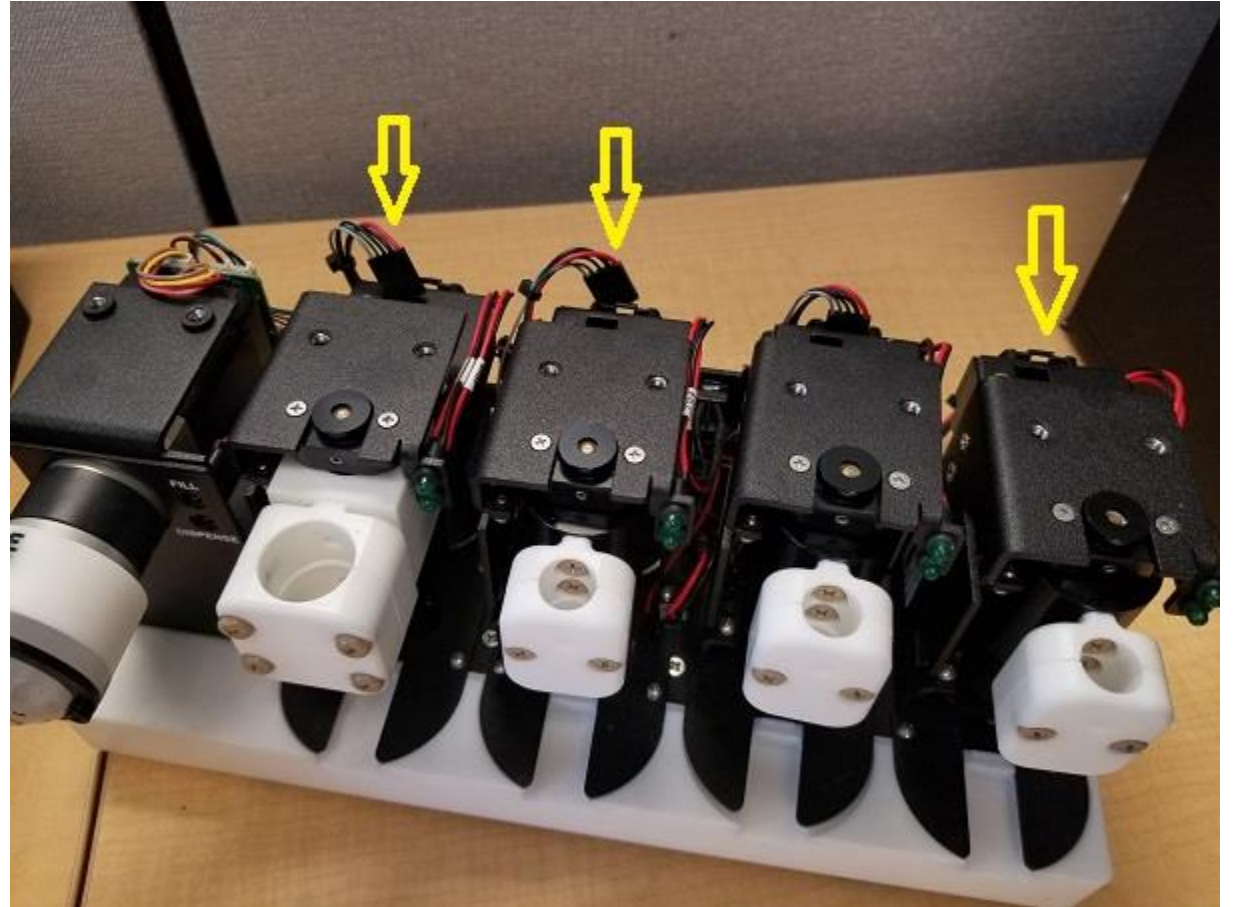


Programming Preparation

Remove the wire harness from the back of each syringe assembly that is NOT going to be programmed. Leaving these connected could result in the reprogramming of other syringe assemblies.

On the back of the S400V, connect the power and the communication cables.

Turn on the power.

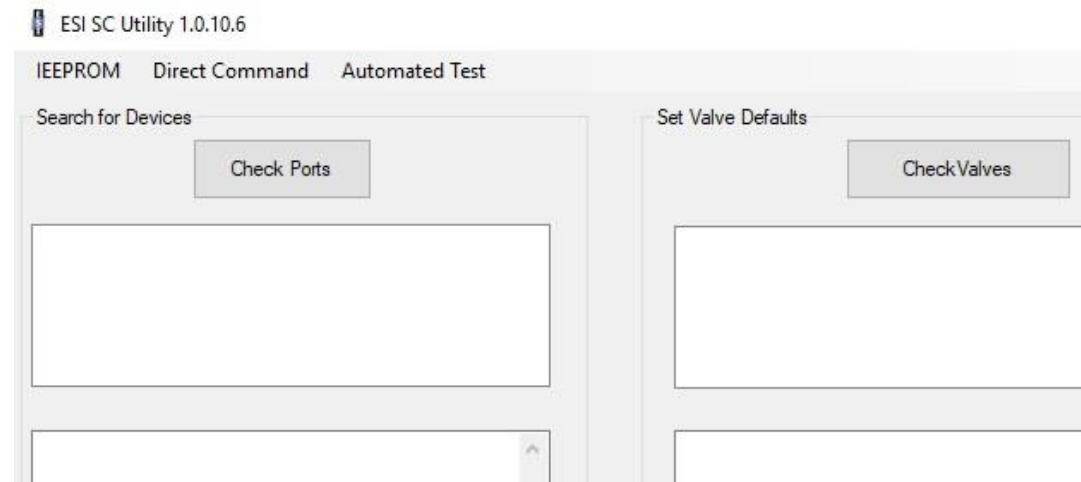


ESI SC Utility Software



https://download.icpms.com/ESI/ESI_Utility.zip

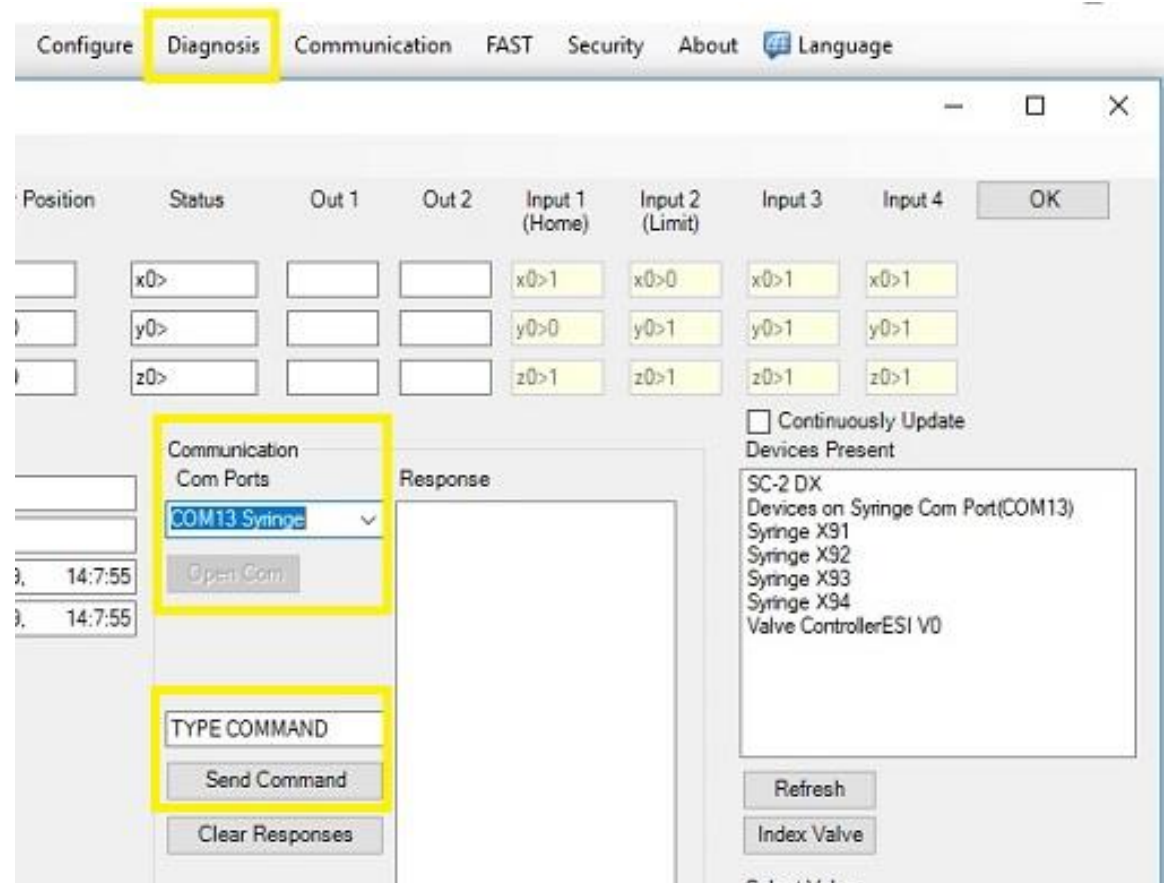
For older syringe modules, you will need to install the ESI SC Utility software.



ESI SC Utility



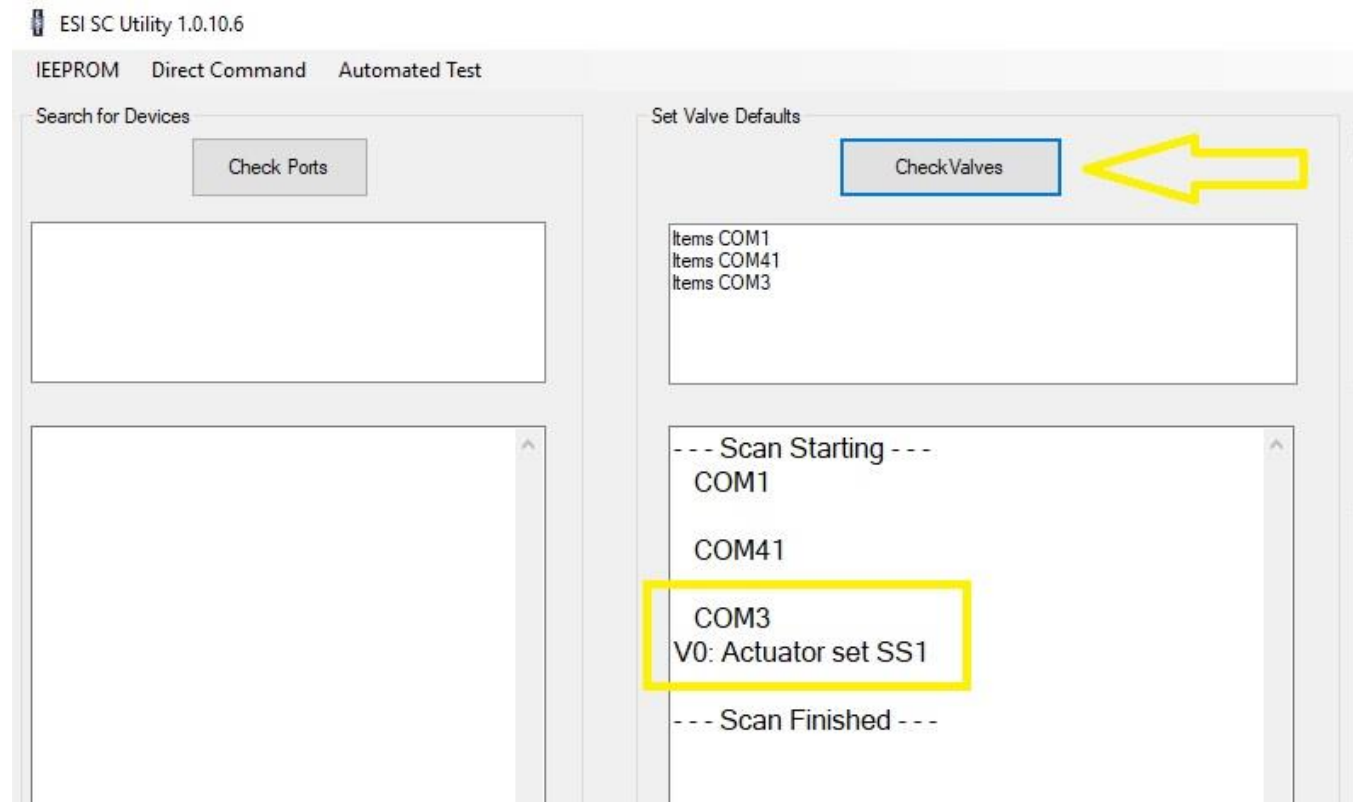
For newer syringe modules, you can use either the ESI SC Utility or the **Diagnosis** window within the ESI SC software.



ESI SC Utility



Start the utility software (or open the Diagnosis window) and determine the COM port of the syringe module. Click **Check Valves**. The syringe module will have a valve connected to it.



Determine the address of the new syringe



Inspect your new syringe assembly. The model number will have the address. In this example, Model S93 tells us that this syringe has an address of 93.

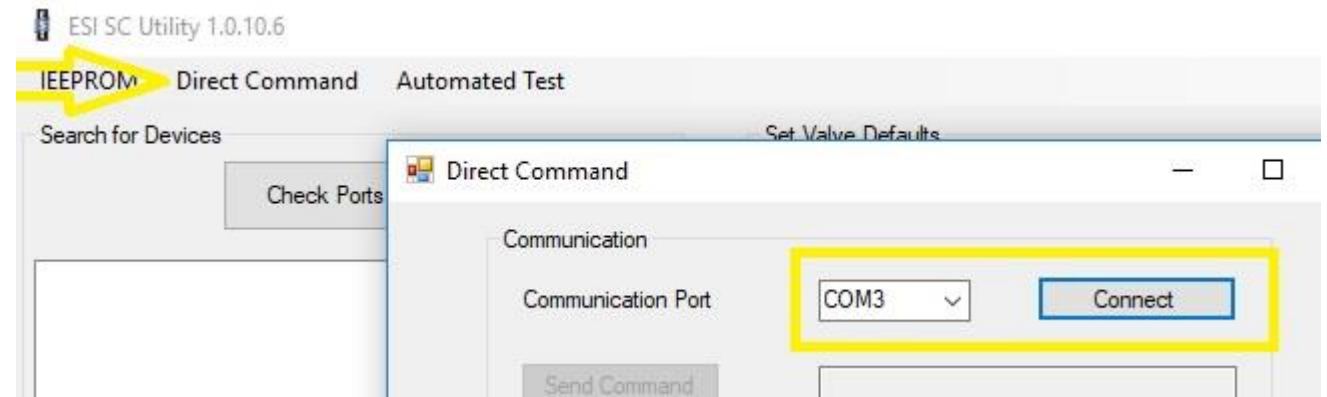


Determine the address of the new syringe

Alternatively, you may also use the utility to find this information.

To do this, click on **Direct Command**.

Choose the proper COM port and then click **Connect**.

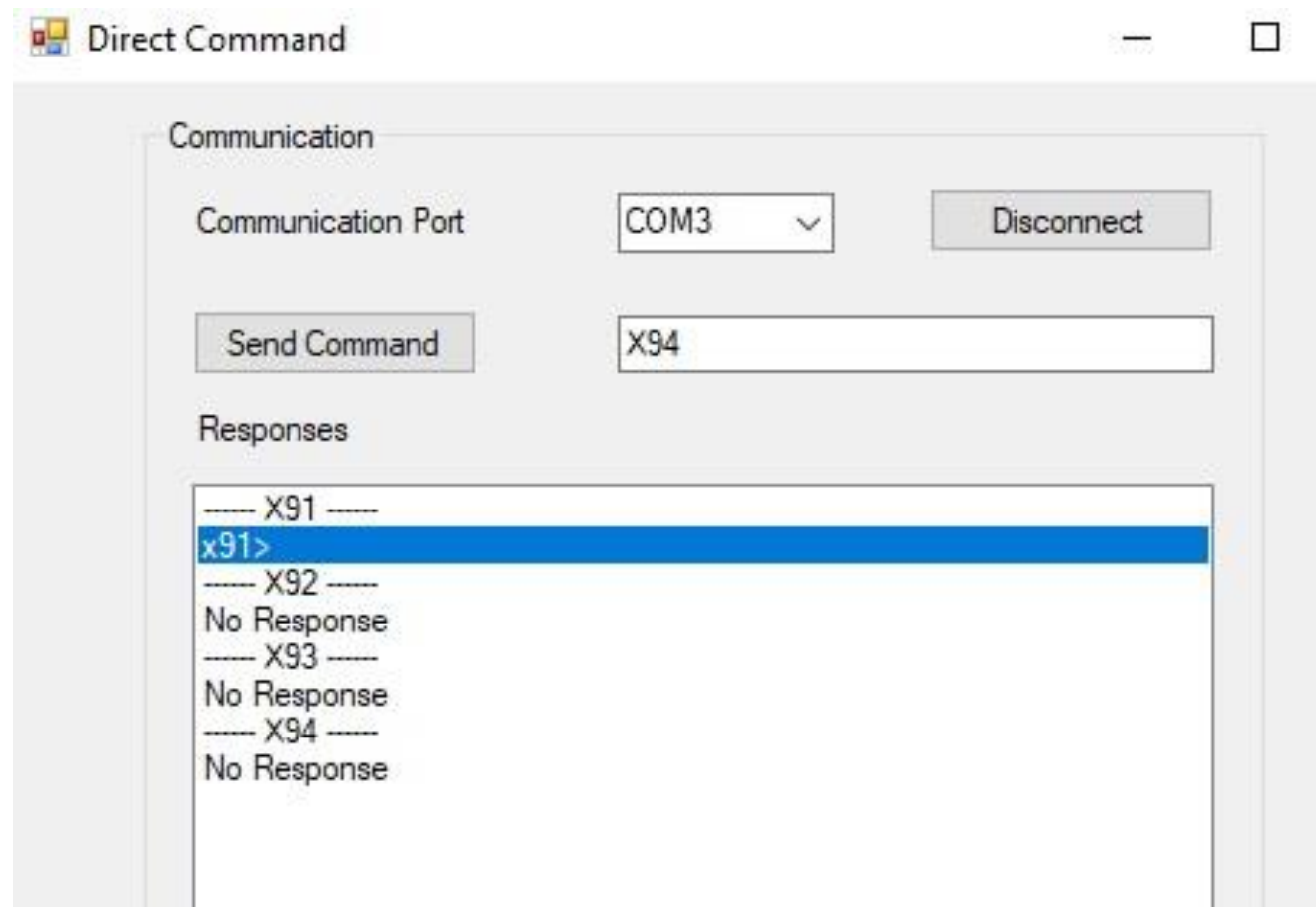


Determine the address of the new syringe

Send Commands as shown in the picture (X91, X92, etc.). A response will be given. **No Response** signifies that there is no syringe assembly with that address connected.

You are looking for a response similar to x91>. The number is the current address of the syringe assembly that is connected to the system.

Disconnect when done.

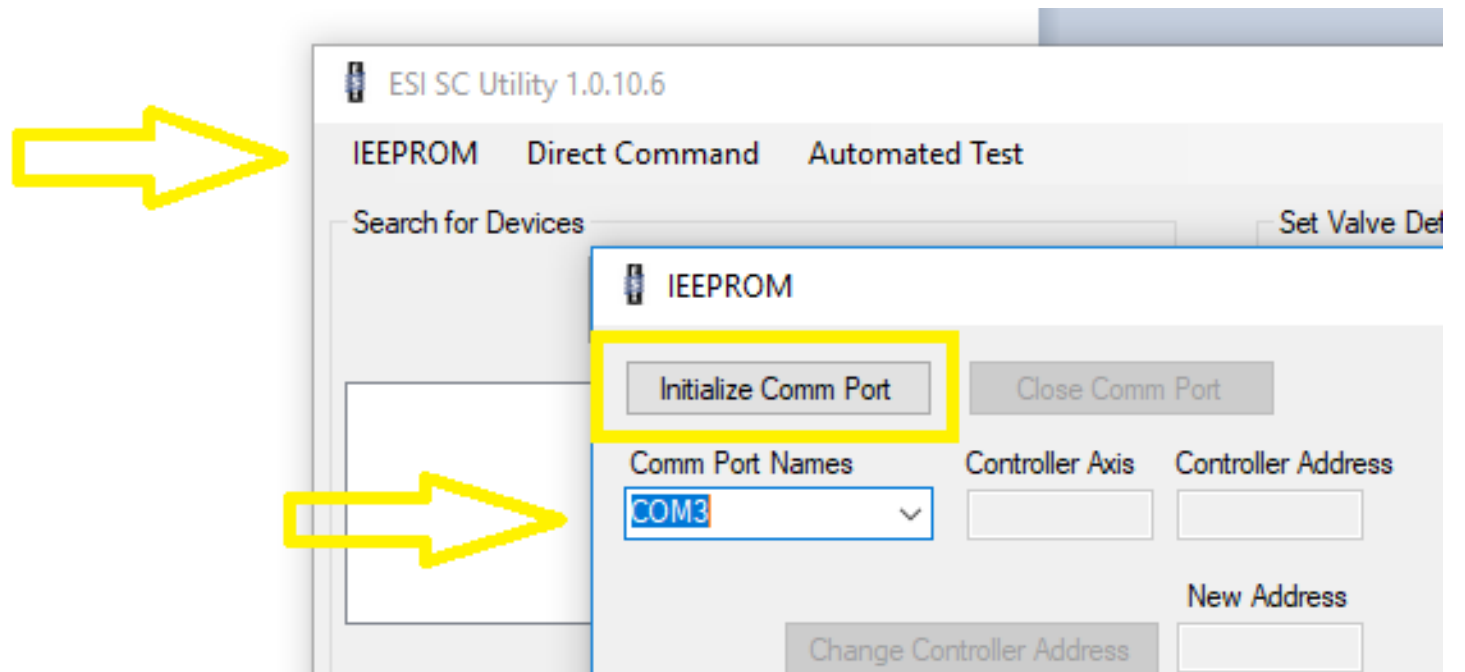


Older syringe assemblies

For older syringe assemblies, follow these steps.

Step 1: Click on **IEEPROM** at the top of the window and then select the correct syringe **Comm port Name** (where the syringe module is connected).

Step 2: Click **Initialize Comm Port**



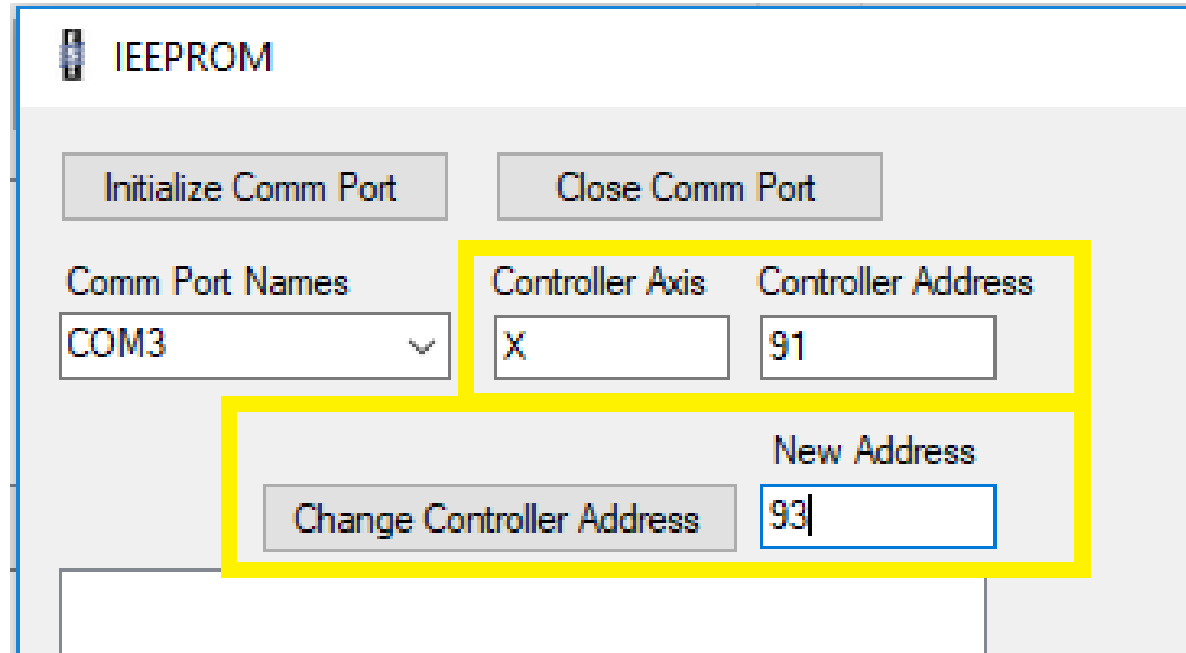
Older syringe assemblies

Step 3: Enter **Controller Axis** Use “X”

Step 4: Enter **Controller Address** of the current syringe address that you determined earlier.

Step 5: Enter the **New Address** that the Syringe should be addressed. Syringe 1= 91, Syringe 2=92, etc.

Step 6: Click **Change Controller Address**



The screenshot shows the IEEPROM software interface. At the top, there is a title bar with the IEEPROM logo and the text "IEEPROM". Below the title bar, there are two buttons: "Initialize Comm Port" and "Close Comm Port". Underneath these buttons, there is a section for "Comm Port Names" with a dropdown menu showing "COM3". To the right of the dropdown menu, there are two input fields: "Controller Axis" with the value "X" and "Controller Address" with the value "91". Below these input fields, there is a "Change Controller Address" button and a "New Address" input field with the value "93". The "Controller Axis" and "Controller Address" input fields, and the "Change Controller Address" button and "New Address" input field, are highlighted with yellow boxes.

Older syringe assemblies

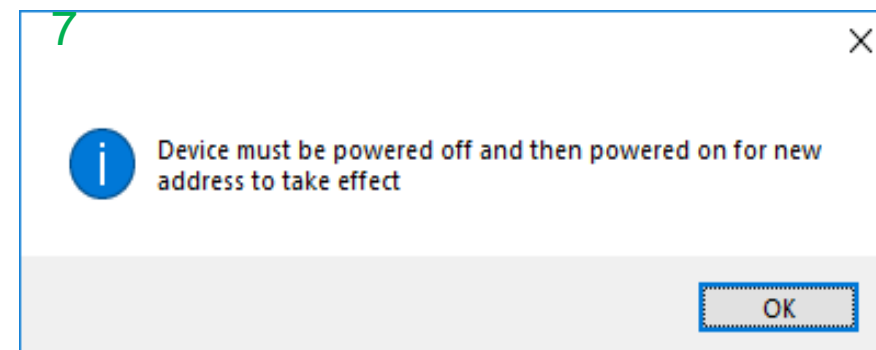
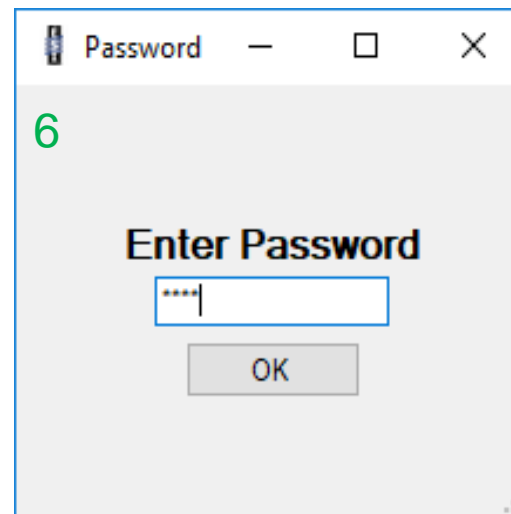
The password is: 2440.

Step 7: Close the COM port, power the syringe module off

Step 8: Re-connect the other syringe wire harnesses.

Step 9: Put the case and top back on the module.

Step 10: Re-connect power and communication cables and then power on the module.



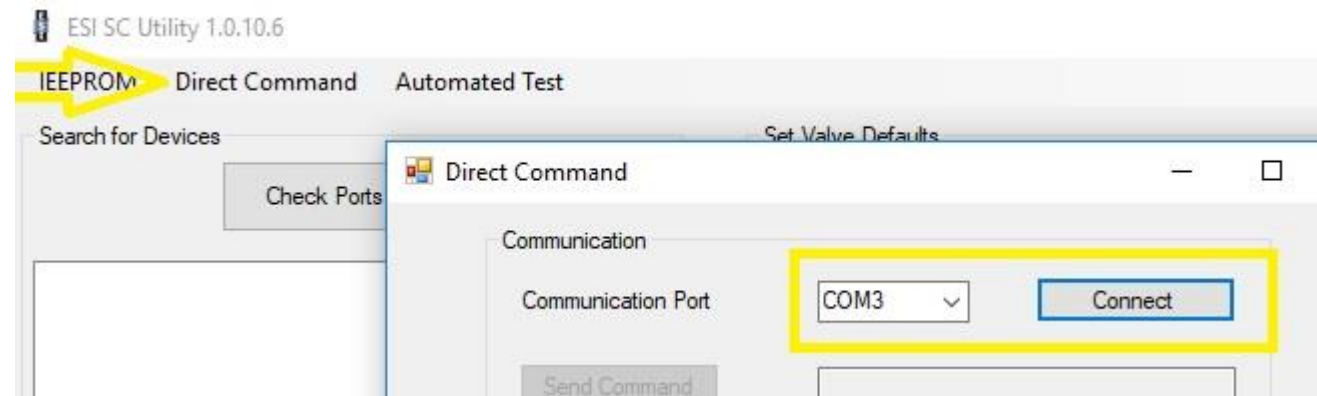
Newer syringe assemblies



For a newer syringe, follow these steps.

Step 1: Choose **Direct Command** from the main menu of the ESI SC Utility.

Step 2: Select the COM port and click **Connect**.



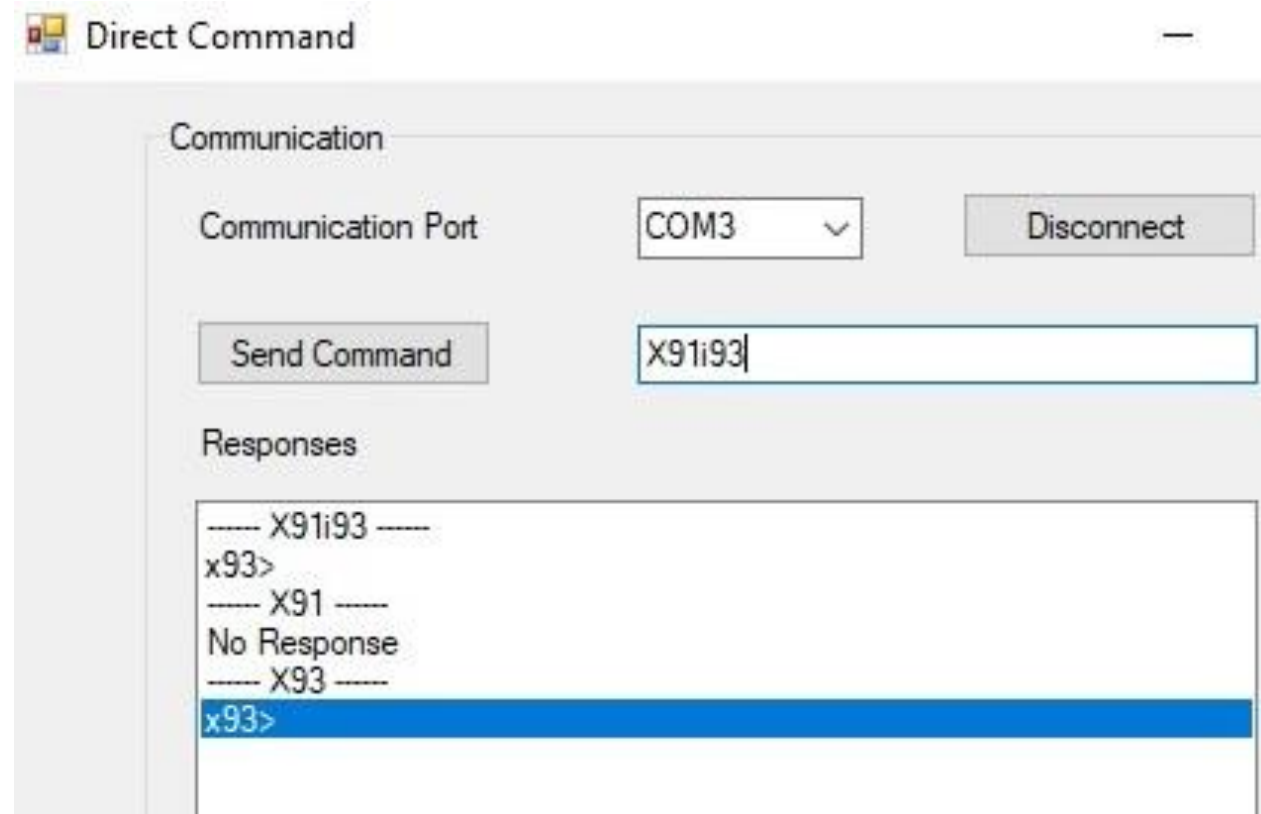
Newer syringe assemblies

Step 3: Program the syringe.

To program the syringe assembly, use a command similar to this: X91i93. In this example, the current address of The syringe is 91 and the new address will be 93.

Also in this example, after the command was run, subsequent commands show that X91 gives no response while X93 shows that the syringe is active.

Disconnect to end the session.



Newer syringe assemblies

Step 4: Power the syringe module off

Step 5: Re-connect the other syringe wire harnesses.

Step 6: Put the case and top back on the module.

Step 7: Re-connect power and communication cables and then power on the module.

