

# pCLAMP10

## *Setup Guide*

Suppliers and support for:



Analytical Technologies



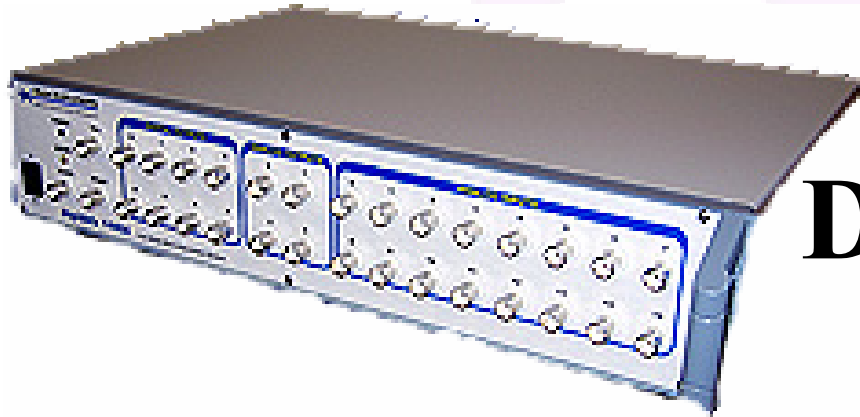
- Insert the pCLAMP10 CD into your CD/DVD ROM
- Follow the installation instructions – this will allow you to completely install Clampex, Clampfit and Axioscope
- While the pCLAMP10 CD is still in your CD/DVD ROM, insert the pCLAMP10 dongle into a free USB port
- Windows should automatically install the drivers for the dongle
- Connect the USB2.0 cable to the back port of the Digidata 1440A and to a free USB2.0 port (It is important to use a USB2.0 and not a USB1.1 port)
- Windows should once again automatically detect the connection of the Digidata 1440A (please make sure the pCLAMP10 CD is still in your CD/DVD ROM)
- Switch on the Digidata 1440A

Suppliers and support for:



Analytical Technologies





# Digidata 1440A

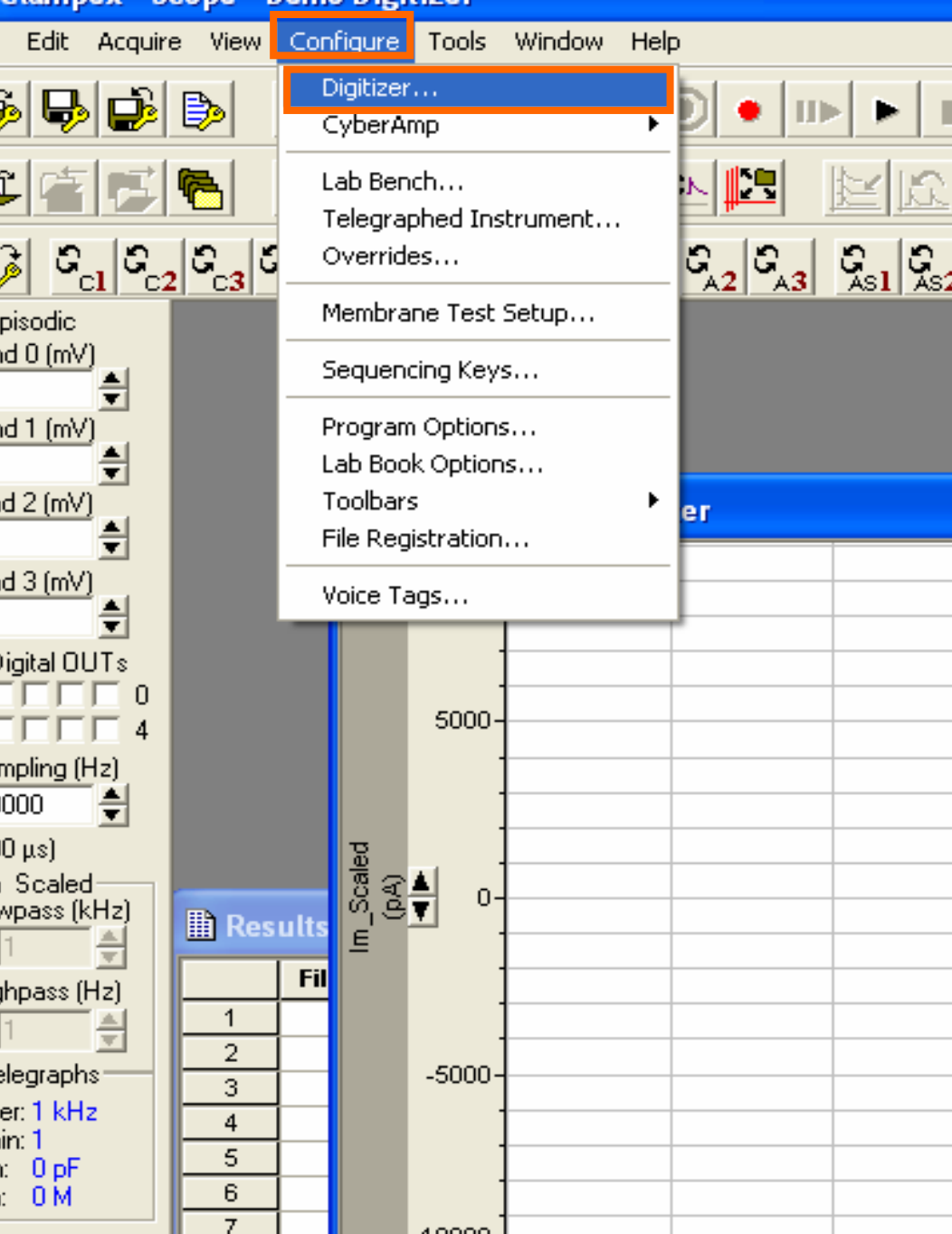
## *Setup Manual*

Suppliers and support for:

  
Analytical Technologies

 **Axon Instruments**  
now part of Molecular Devices

 **Molecular Devices**

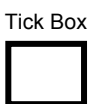


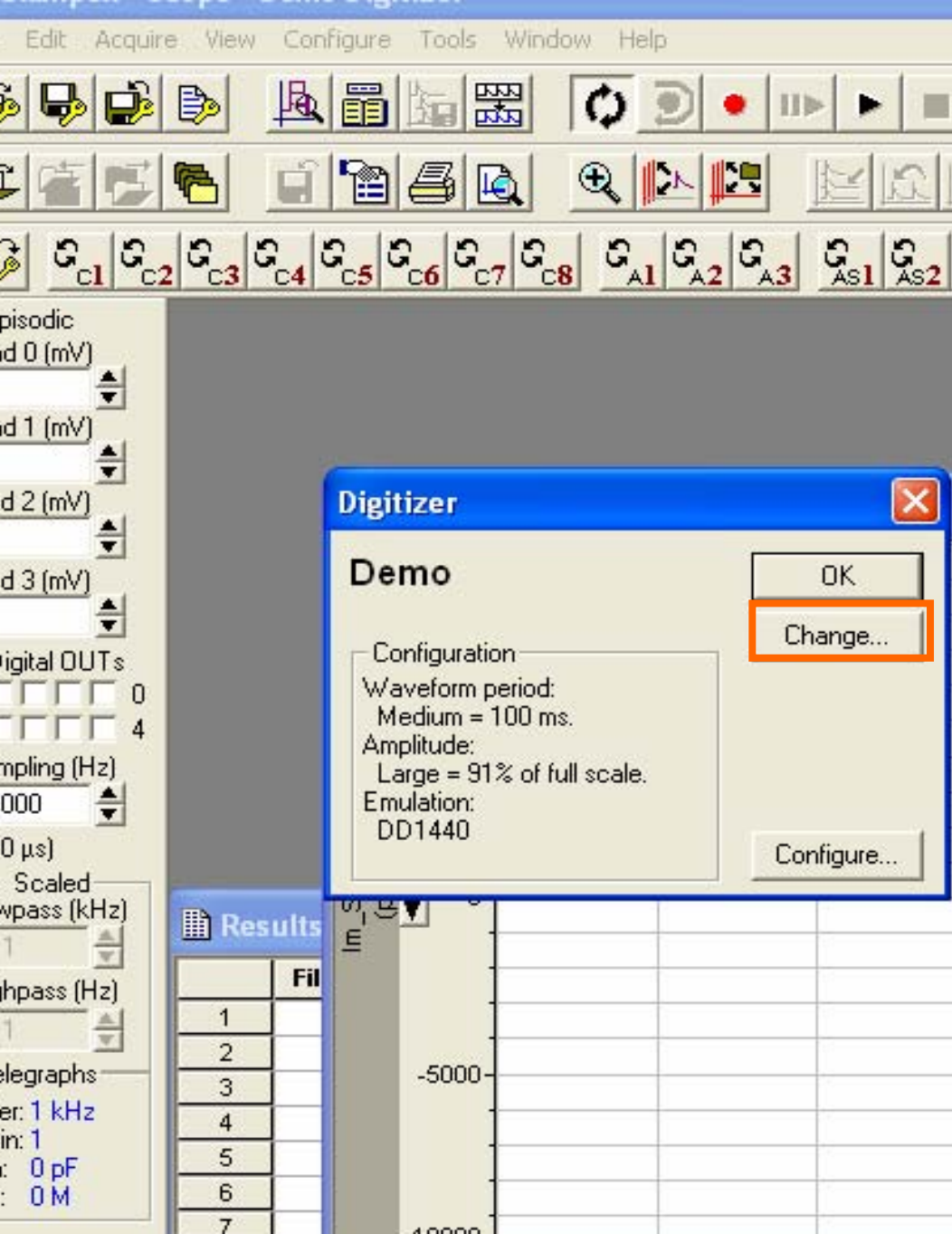
**pCLAMP 10 will start up in Demo Digitizer mode. The Digidata 144A will first need to be configured before recording can commence.**

**The following steps will help you setup your Digidata 1440A.**

**Step 1:**

**Ψ** click on “Configure” on the taskbar, then “Digitizer...” on the drop down menu that appears.





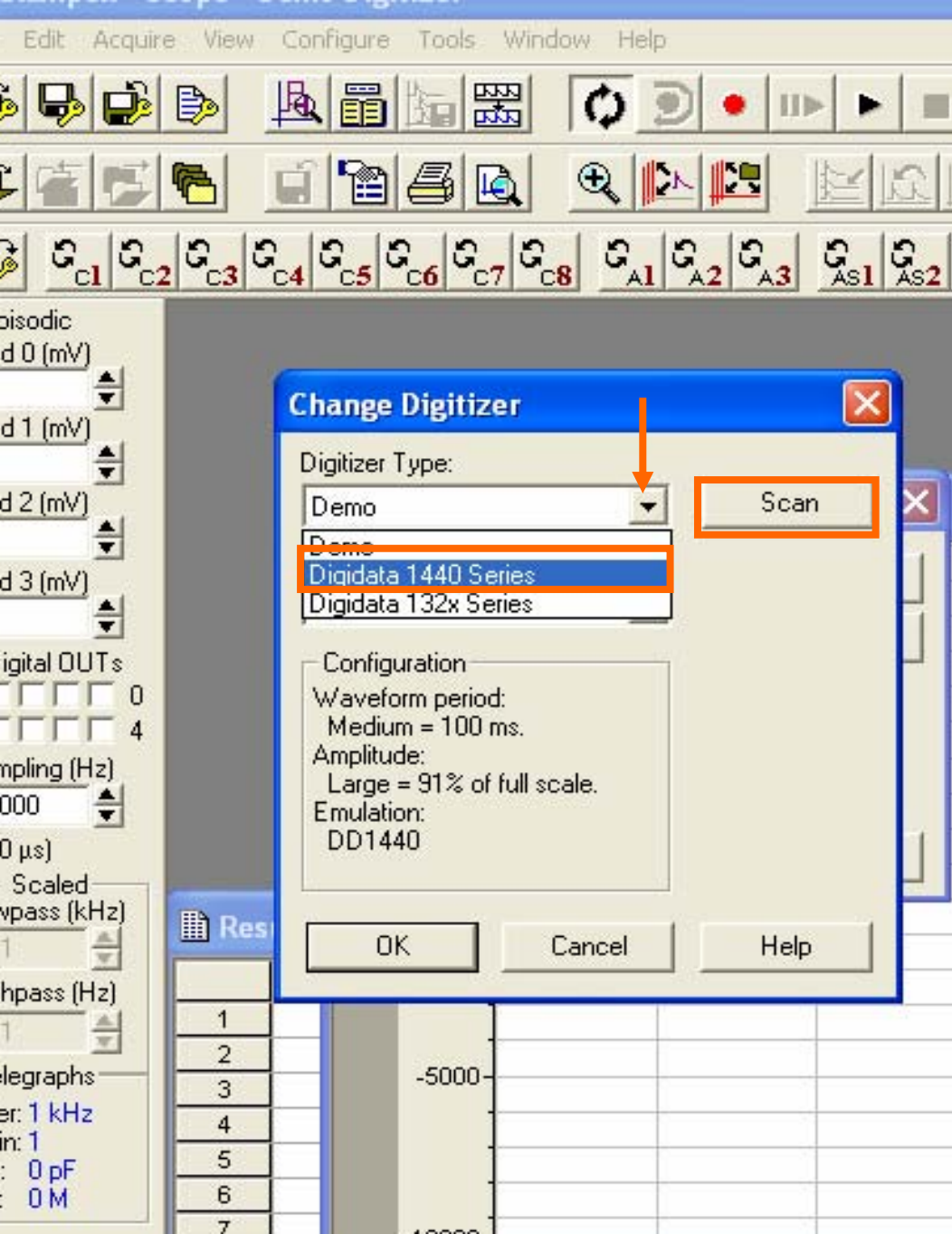
The following “Digitizer” pop-up window will appear.

No Digidata has been configured yet – hence the “Demo” Digidata is shown.

**Step 2:**

click on the “Change...” button





### Step 3:

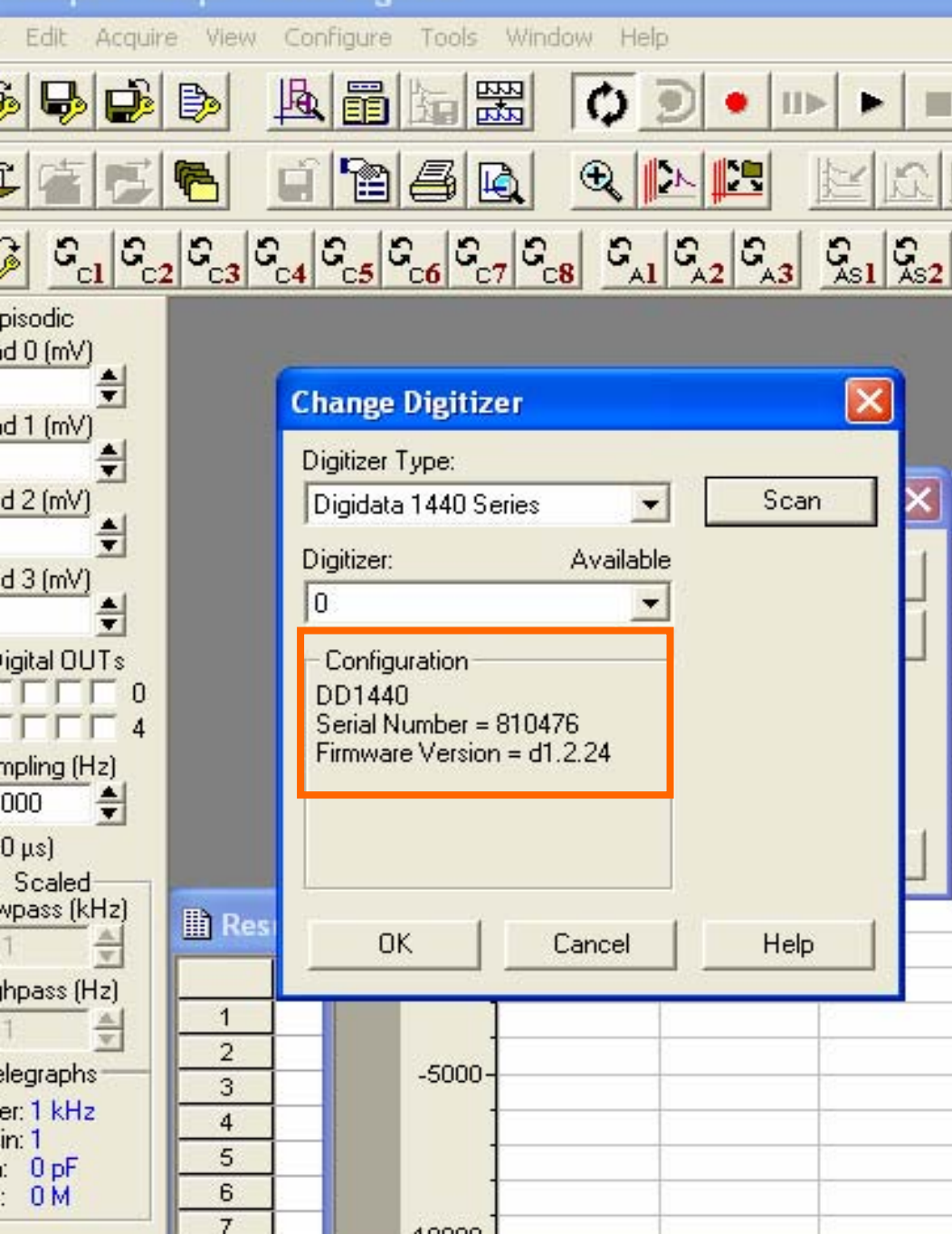
Click on the drop down arrow and select the “Digidata 1440 Series”.

Tick Box

### Step 4:

Click on the “Scan” button.

Tick Box



The Digidata 1400A is now present.

The Serial Number and Firmware Version the “Configuration” box confirm this.

**Step 6:**

Click on the “OK” button.

Tick Box



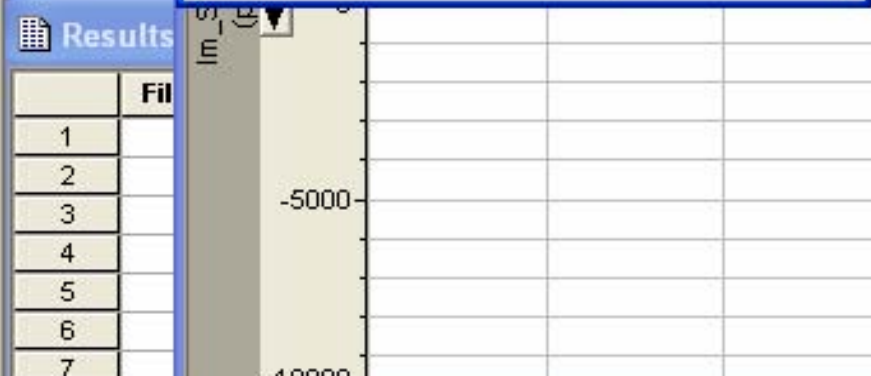


**The Digidata 1440 Series is now configured and ready for recording**

**Step 7:**

Click on the "OK" button.

Tick Box



# Clampex10 - Telegraphs and Signals

*Setup Manual for the Multiclamp 700B &  
Digidata 1440A*

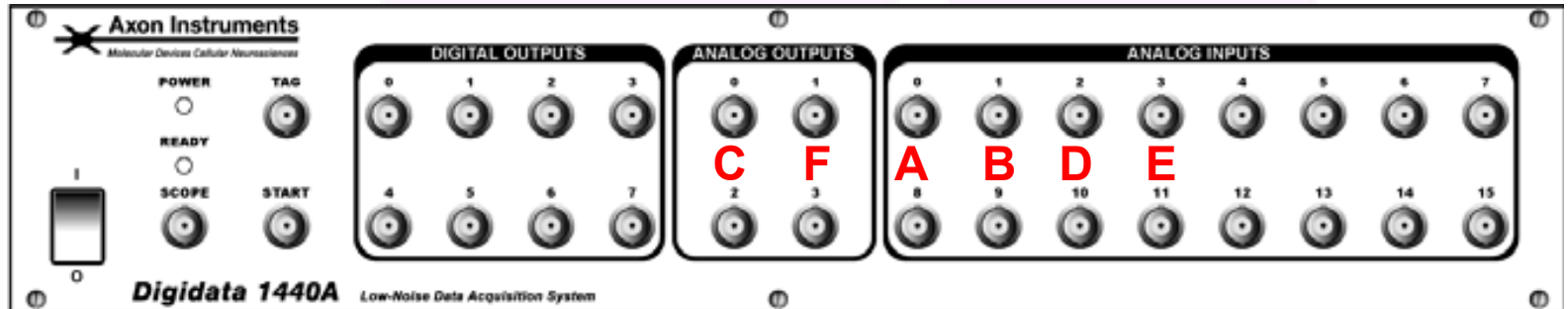
Suppliers and support for:



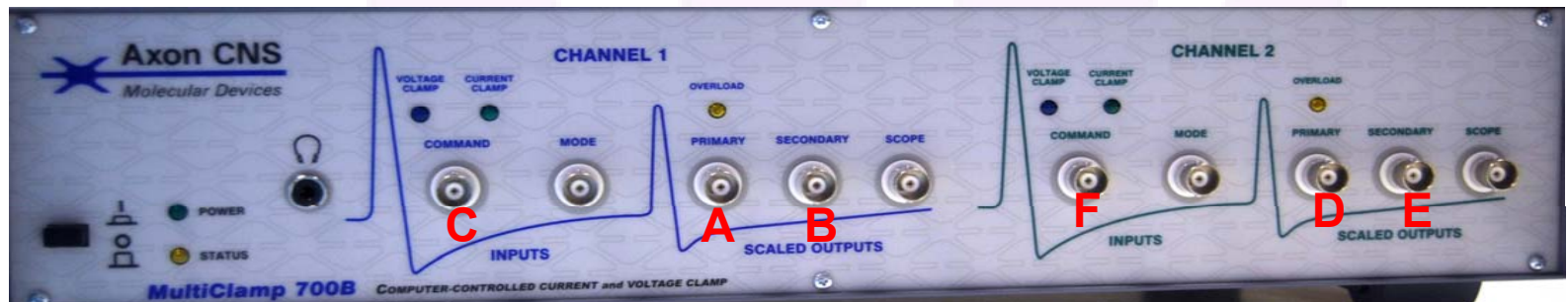
Analytical Technologies



# Connecting the Multiclamp 700B to the Digidata

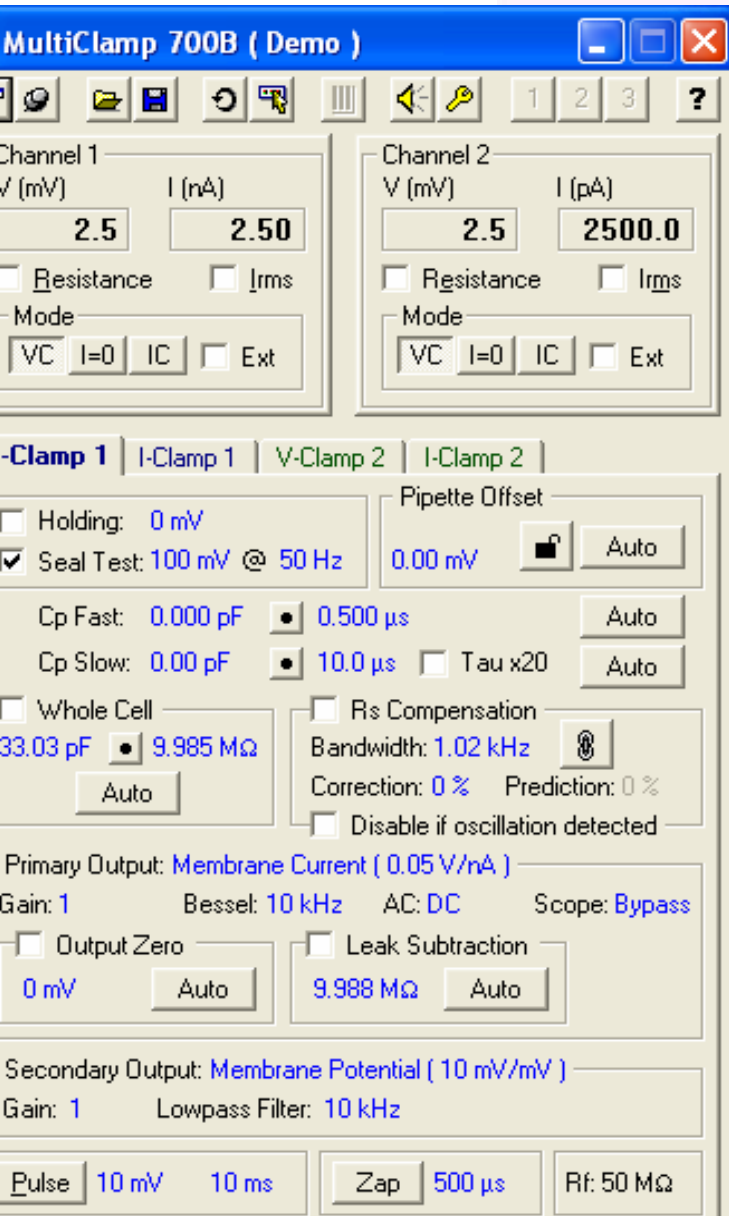


Front Panel (of the Digidata 1440A)



Front Panel (of the Multiclamp 700B)

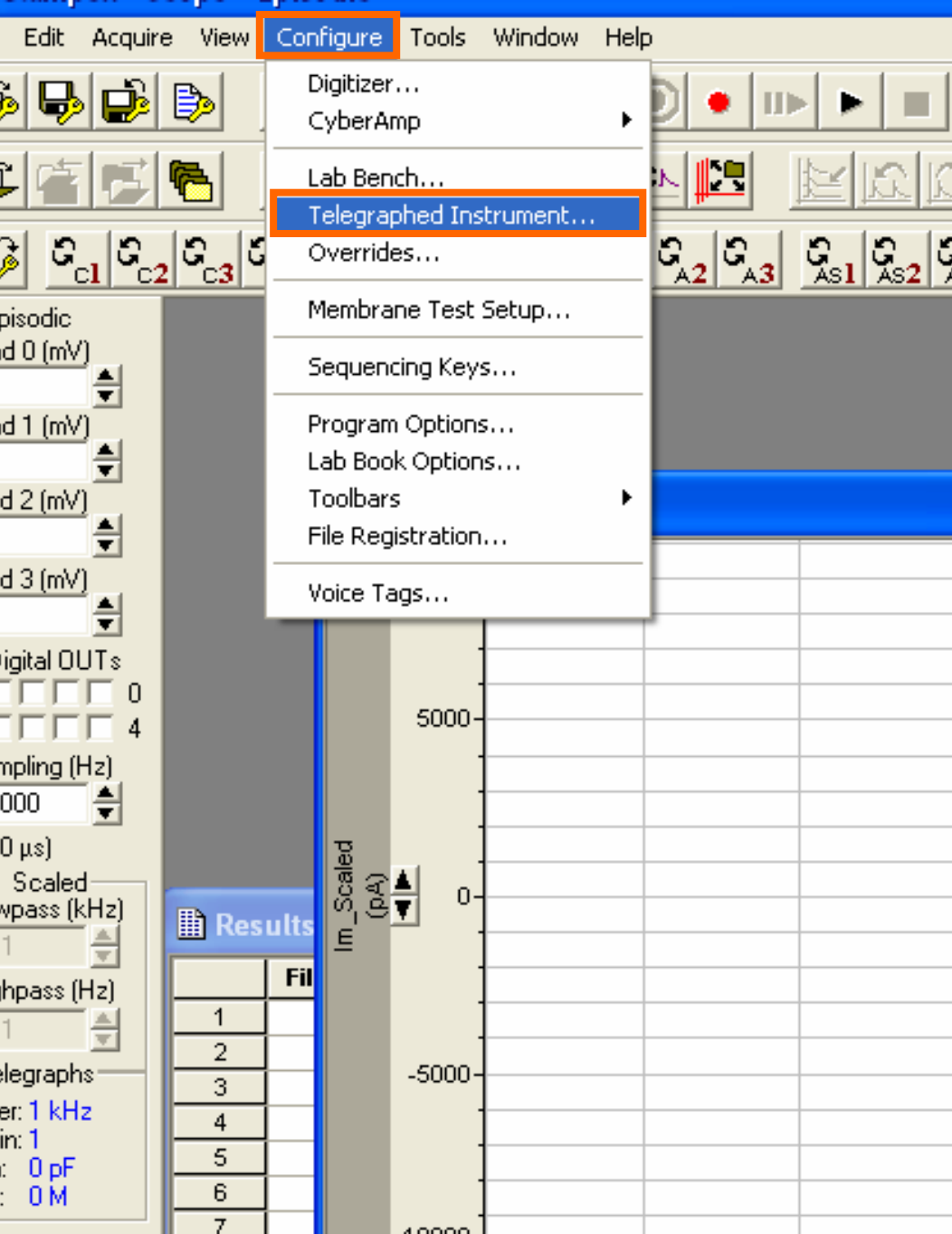
# Open the Multiclamp700B Commander



**Open the Multiclamp 700B Commander software. If it isn't installed please do so before commencing.**

**When the software opens it will be in “demo” mode, click “scan” and then 700B amplifier should be recognized by the software.**

**You can now continue with the Clampfit Setup.**



As the *Multiclamp 700B* is a two channel amplifier with the capabilities of four scaled output channels, we will now look to setup four of the digitizer's input channels for receiving signals from the amplifier.

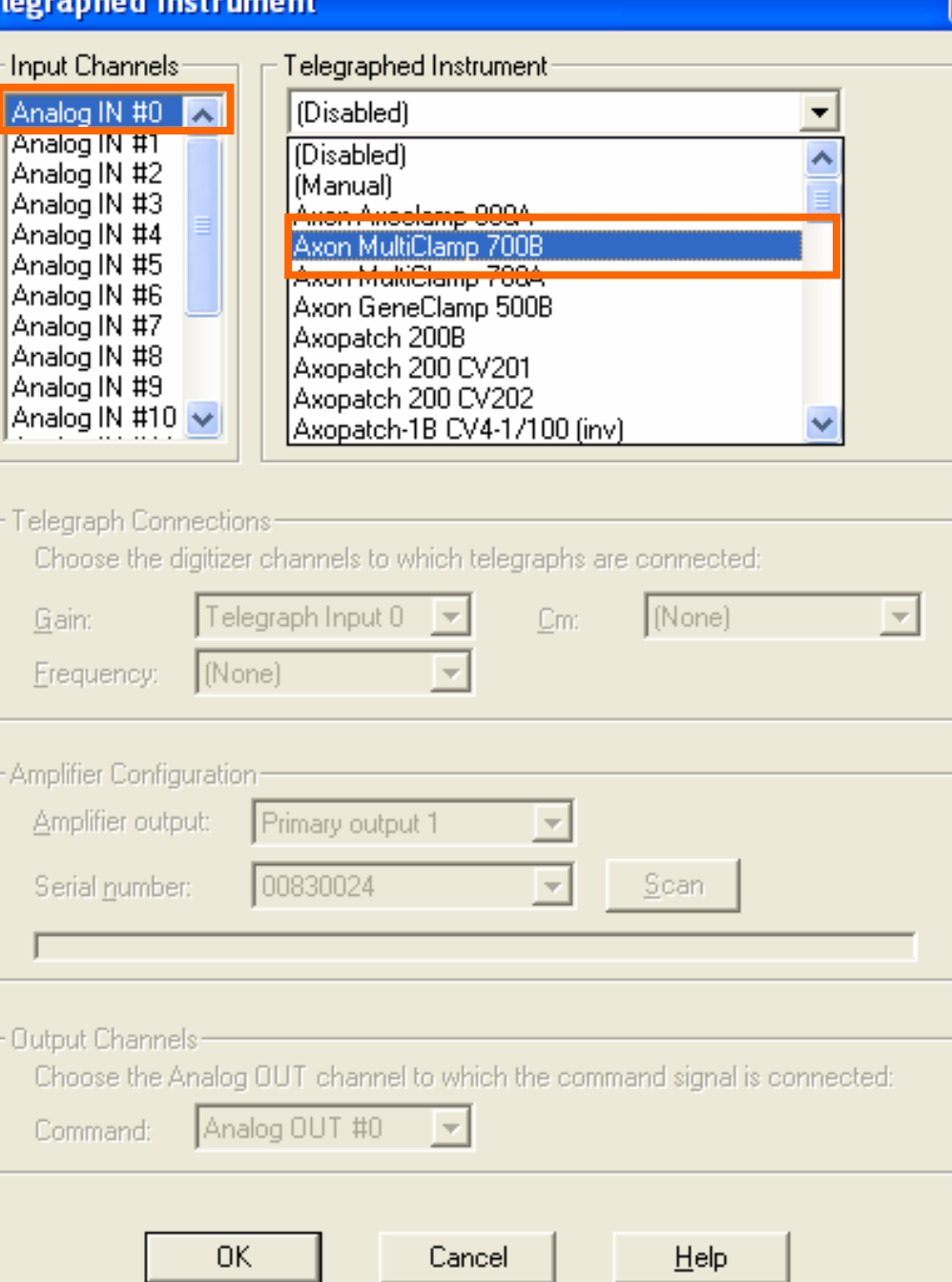
The Primary and Secondary Scaled Output channels and the Command channel of Channel 1 & 2 of the *Multiclamp 700B* must be setup (see previous page).

### Step 1:

Ψ click on “Configure” on the taskbar, then “Telegraphed Instruments...” on the drop down menu that appears.

Tick Box





We start by setting up the Primary Scaled Output and the Command on Channel 1...

### Step 2:

Tick Box



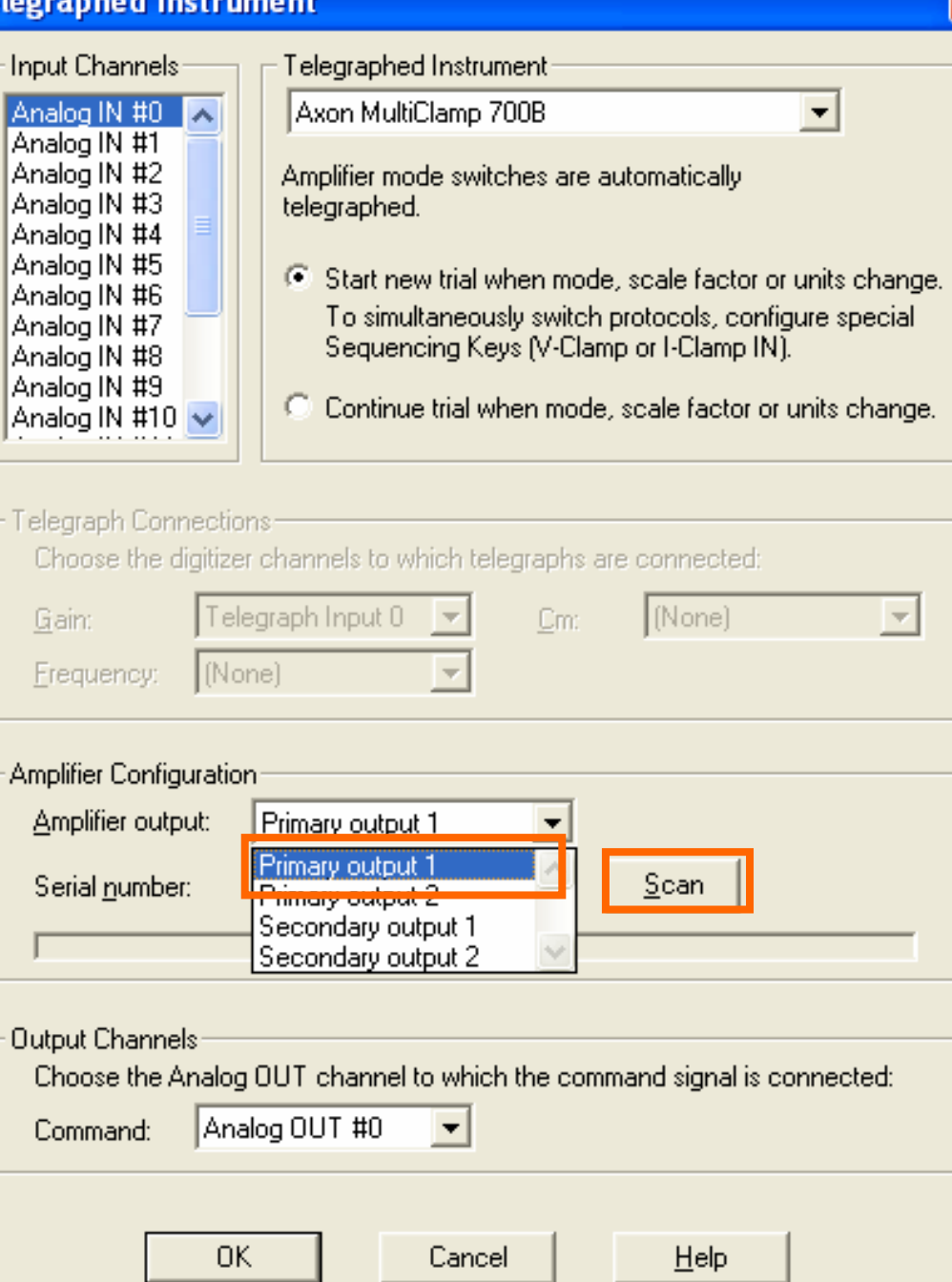
Click “Analog IN #0” under the “Input Channels” options

### Step 3:

Tick Box



In the “Telegraphed Instrument” drop down list select “*Multiclamp 700B*”



## Step 4:

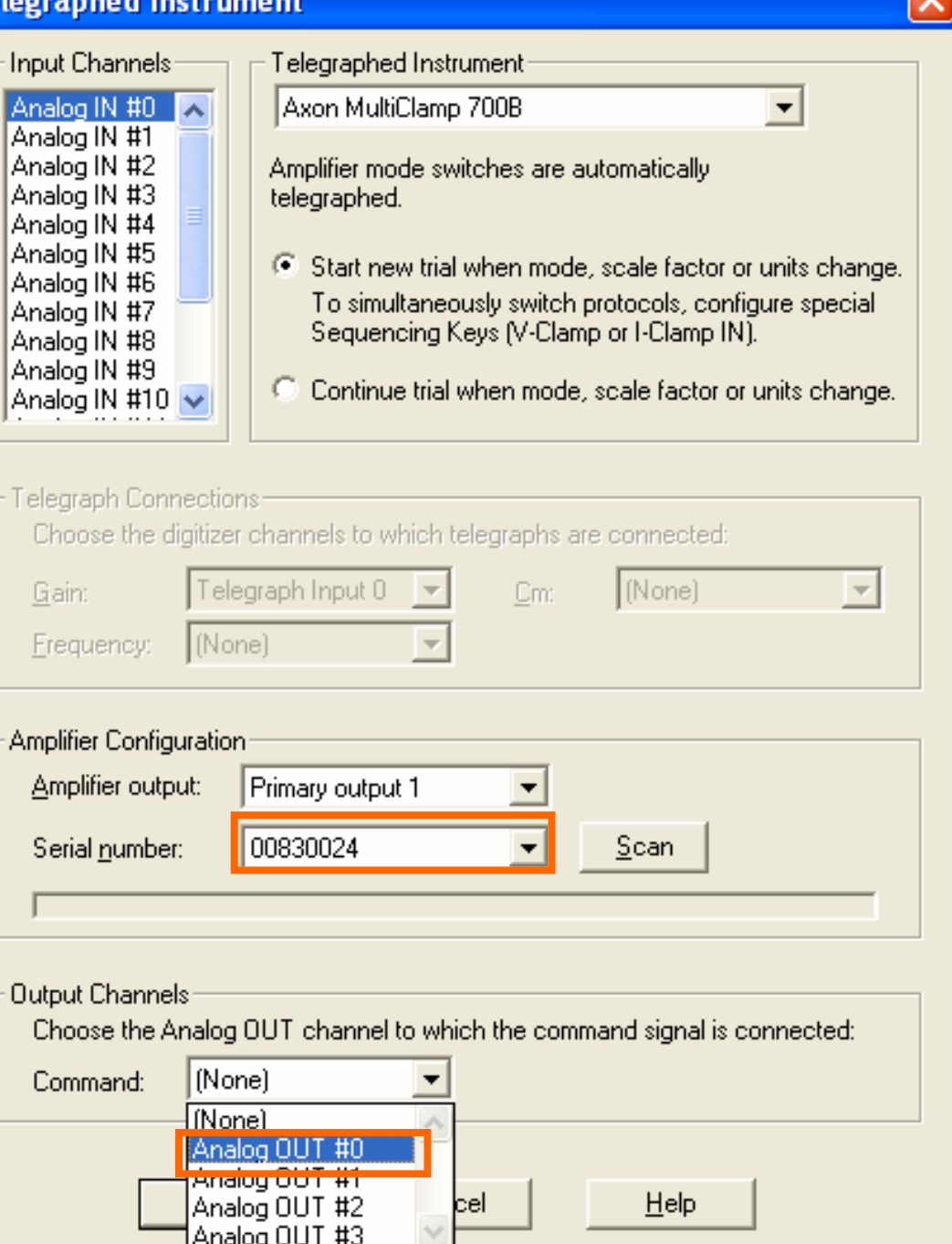
Click “Primary Output 1” under the “Amplifiers Output” options as the primary output on the first channel of the amplifier is connected to Analog IN #0 on the *Digidata1440A*.

Tick Box

## Step 5:

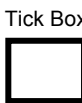
Then press the “Scan” button.

Tick Box

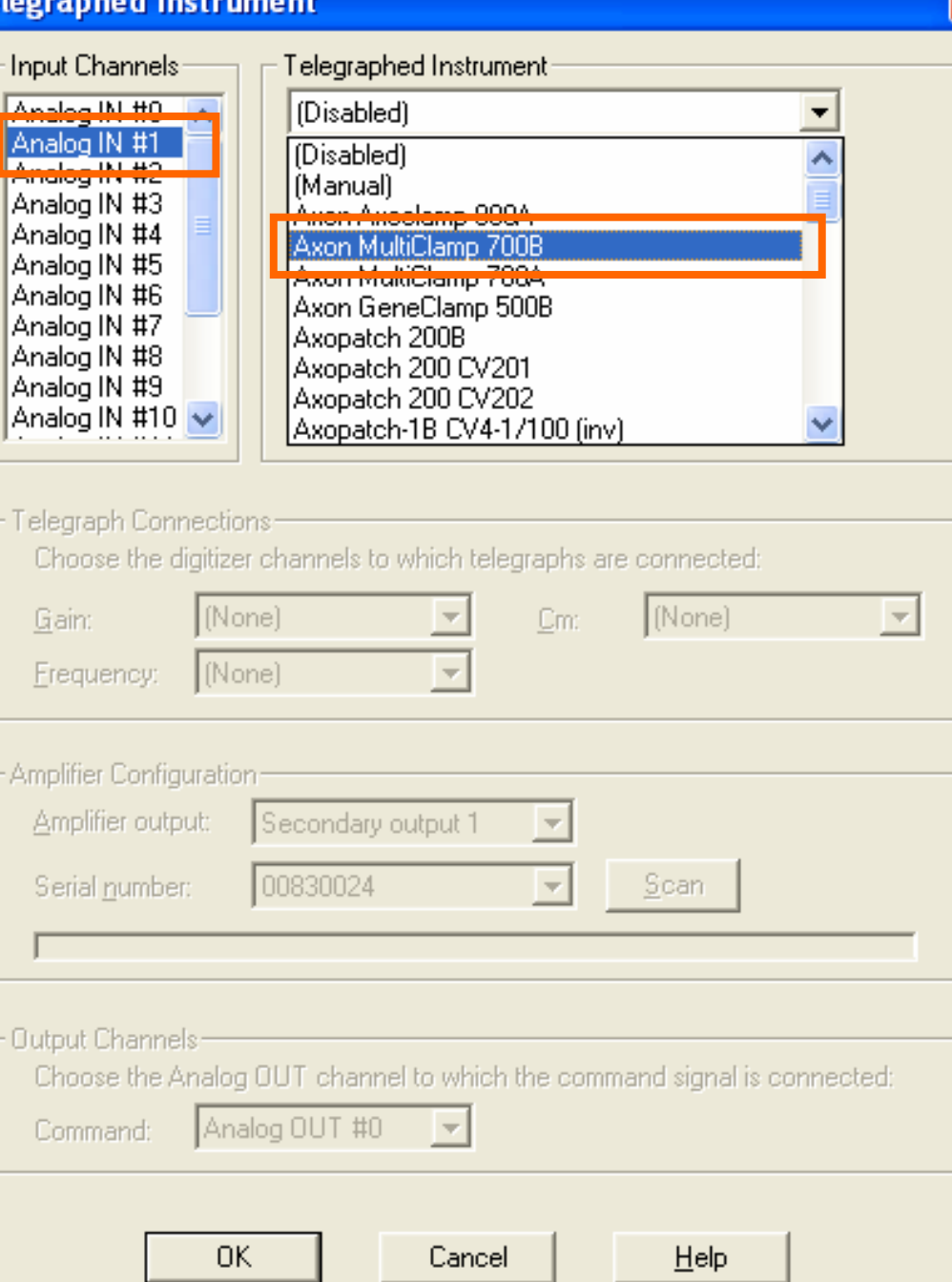


If **all is hardware** is connected and setup correctly the Serial number of the amplifier will show in the space provided.

### Step 6:



Click “Analog OUT #0” on the drop down menu under the “Command” options as the command channel on the first channel of the amplifier is connected to Analog OUT #0 on the *Digidata1440A*.



Now we setup the Secondary Scaled Output and Command on Channel 1...

### Step 7:

Tick Box

- Click “Analog IN #1” on the drop down menu under the “Input Channels”.

### Step 8:

Tick Box

- Then select the “*Multiclamp 700B*” from the drop down list under the “Telegraphed Instruments”.

**Telegraphed Instrument**

Input Channels

- Analog IN #0
- Analog IN #1**
- Analog IN #2
- Analog IN #3
- Analog IN #4
- Analog IN #5
- Analog IN #6
- Analog IN #7
- Analog IN #8
- Analog IN #9
- Analog IN #10

Telegraphed Instrument

Axon MultiClamp 700B

Amplifier mode switches are automatically telegraphed.

Start new trial when mode, scale factor or units change.  
To simultaneously switch protocols, configure special Sequencing Keys (V-Clamp or I-Clamp IN).

Continue trial when mode, scale factor or units change.

Telegraph Connections

Choose the digitizer channels to which telegraphs are connected:

Gain: (None) Cm: (None)

Frequency: (None)

Amplifier Configuration

Amplifier output: Secondary output 1

Serial number: Primary output 1  
Primary output 2  
**Secondary output 1**  
Secondary output 2

Scan


Output Channels

Choose the Analog DUT channel to which the command signal is connected:


Command: (None)

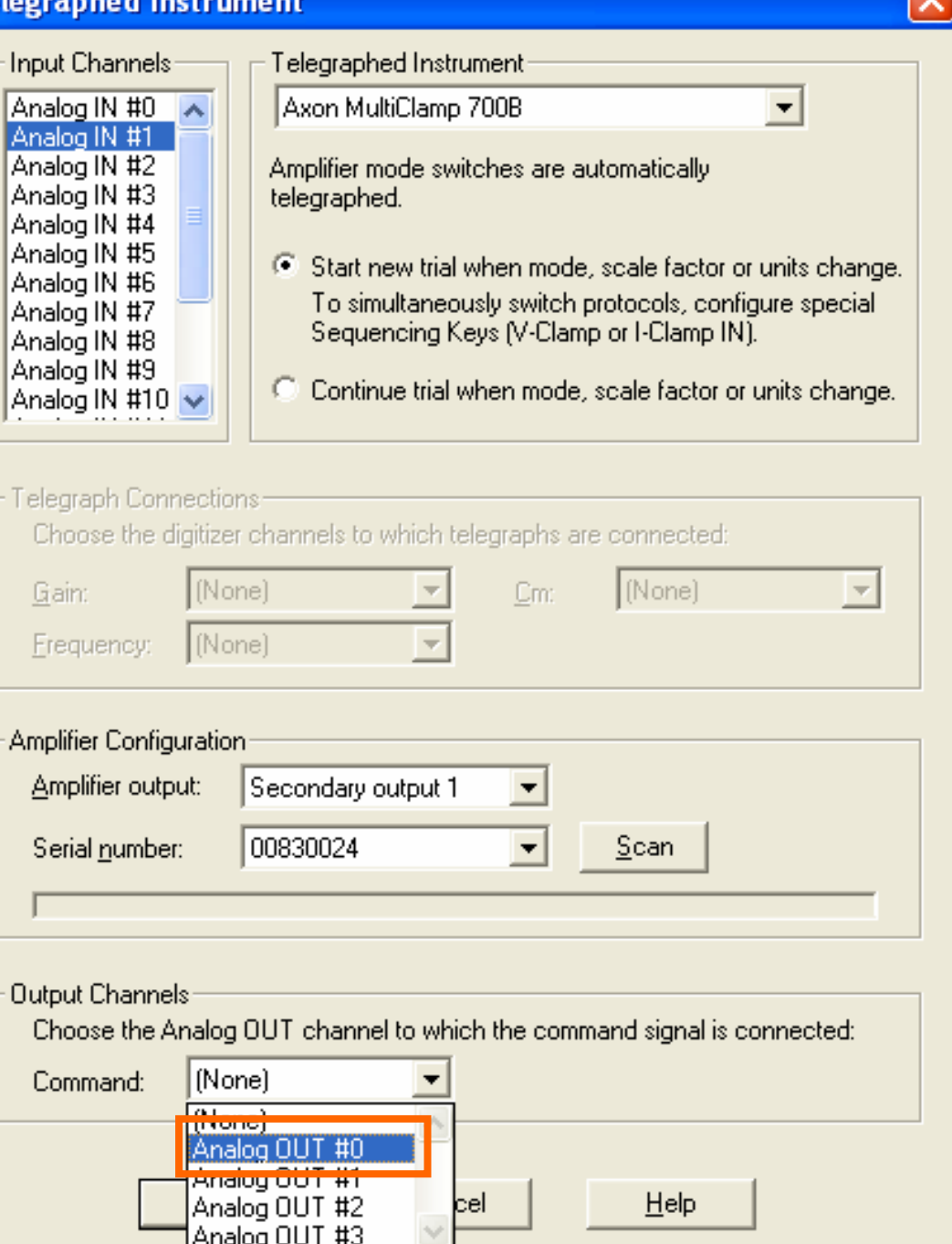
OK Cancel Help

## Step 9:

- Tick Box
-  Click “Secondary output 1” on the drop down menu under the “Amplifier output” drop down list.

## Step 10:


- Tick Box
-  Click the “Scan” button
- The serial number will once **gain** shown in the “Serial number” space provided



Tick Box



## Step 11:

 Select the “Analog OUT #0” option on the “command” drop down list.

Both the Primary and Secondary Scaled Output channels and the Command channel on Channel 1 of the amplifier have been configured.

**Telegraphed Instrument**

Input Channels

- Analog IN #0
- Analog IN #1
- Analog IN #2**
- Analog IN #3
- Analog IN #4
- Analog IN #5
- Analog IN #6
- Analog IN #7
- Analog IN #8
- Analog IN #9
- Analog IN #10

Telegraphed Instrument

Axon MultiClamp 700B

Amplifier mode switches are automatically telegraphed.

Start new trial when mode, scale factor or units change.  
To simultaneously switch protocols, configure special Sequencing Keys (V-Clamp or I-Clamp IN).

Continue trial when mode, scale factor or units change.

Telegraph Connections

Choose the digitizer channels to which telegraphs are connected:

Gain: (None) Cm: (None)

Frequency: (None)

Amplifier Configuration

Amplifier output: Primary output 2

Serial number: 00830024

Output Channels

Choose the Analog OUT channel to which the command signal is connected:

Command: Analog OUT #1

Similarly, the Primary and Secondary Scaled Output channels and the Command channel on Channel 2 of the amplifier is setup.

Tick Box

### Step 12:

Ψ Select “Analog IN#2” in the “Input Channels” list.

Tick Box

### Step 13:

Ψ Select the “*Multiclamp 700B*” in the drop down list of the “Telegraphed Instrument”

Tick Box

### Step 14:

Ψ Select the “Primary output 2” in the “Amplifier output” drop down list.

Tick Box

### Step 15:

Ψ Select the “Analog OUT#1” in the “Command” drop down list.

**Telegraphed Instrument**

Input Channels

- Analog IN #0
- Analog IN #1
- Analog IN #2
- Analog IN #3**
- Analog IN #4
- Analog IN #5
- Analog IN #6
- Analog IN #7
- Analog IN #8
- Analog IN #9
- Analog IN #10

Telegraphed Instrument

Axon MultiClamp 700B

Amplifier mode switches are automatically telegraphed.

Start new trial when mode, scale factor or units change.  
To simultaneously switch protocols, configure special Sequencing Keys (V-Clamp or I-Clamp IN).

Continue trial when mode, scale factor or units change.

Telegraph Connections

Choose the digitizer channels to which telegraphs are connected:

Gain: (None) Cm: (None)

Frequency: (None)

Amplifier Configuration

Amplifier output: Secondary output 2


Serial number: 00830024

Output Channels

Choose the Analog OUT channel to which the command signal is connected:


Command: Analog OUT #1

## Step 16:

-  Select “Analog IN#3” in the “Input Channels” list.

Tick Box

## Step 17:

-  Select “*Multiclamp 700B*” in the “Telegraphed Instruments” drop down list.


Tick Box

## Step 18:

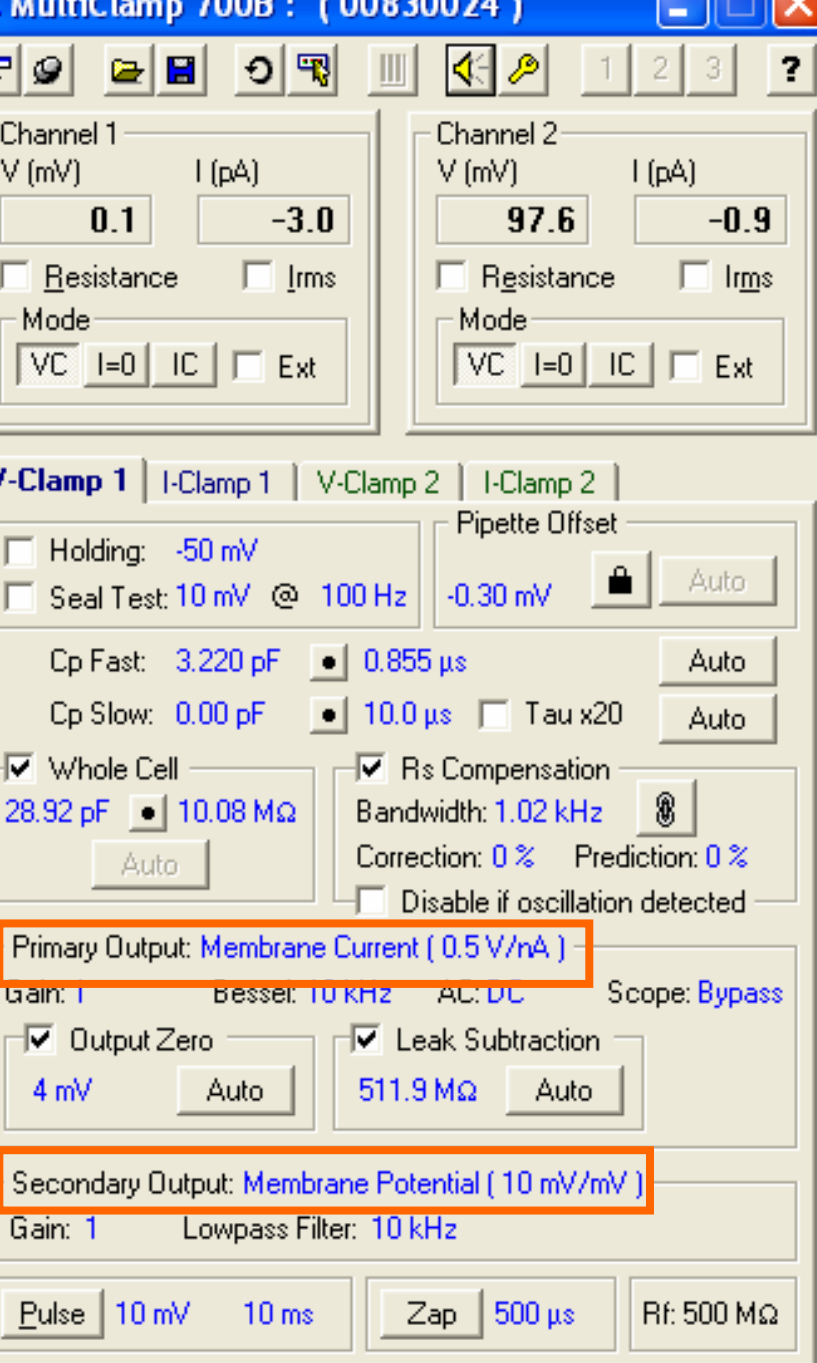
-  Select “Secondary output 2” in the “Amplifier output” drop down list.

Tick Box

## Step 19:

-  Select the “Analog OUT #1” in the “Command” drop down list.

Tick Box



Clampex has now been setup to receive signal from and send command to the *Multiclamp 700B* amplifier.

The signal setup is not required as all signals and scaling are controlled by the *Multiclamp 700B* Commander (see left). By changing the “Primary or Secondary Output” (done by double clicking on the blue description and selecting the alternative parameter) the signals and scaling assigned to the corresponding channel is changed as well.

# Finish !

## We hope the manual was helpful

For more details:

 **Scientifica**

Kingfisher Court, Brambleside

Bellbrook Industrial Estate

Uckfield, East Sussex – TN22 1QQ

Tel: +44 (0)1825 749933

Fax: +44 (0)1825 749934

Email: [info@scientifica.uk.com](mailto:info@scientifica.uk.com)

Web: <http://www.scientifica.uk.com>

 **MDS**  
Analytical Technologies

 **Axon Instruments**

 **Molecular Devices**