

Title: How do I program my LEMO connector for the 1523/24?

Created: 12-7-12

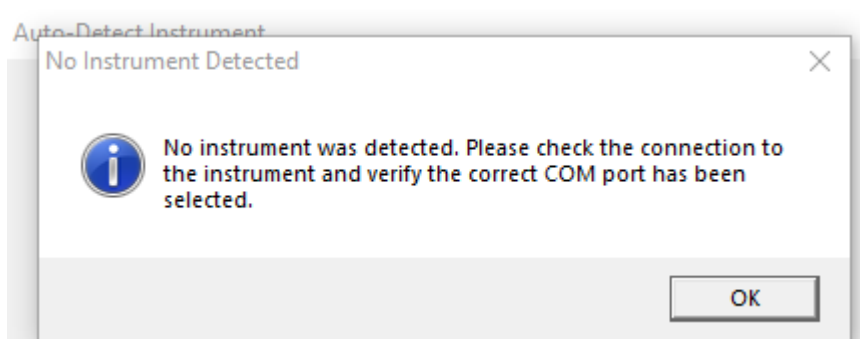
Last Revised: 5-24-2018

Applies To: All 1523 and 1524 meters

Problem Description: The probe is not programmed correctly

Resolution/Work Around: The LEMO or probe connector for the 1523/1524 must be programmed via RS-232 from a computer using the 9940 IO Toolkit software.

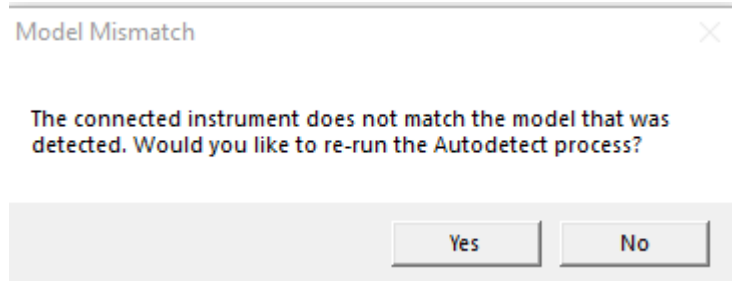
- 1 Connect the RS-232 cable that came with the 1523/1524 (DB9 to 3.5mm mini-stereo jack) to the computer and then to the 1523/1524.
- 2 Plug in 12V DC adapter to an electrical outlet and then into the 1523/1524.
- 3 Install the 9940 IO Toolkit software from the CD provided or download from: <http://us.flukecal.com/literature/software-downloads/software/io-toolkit-v10>
- 4 Connect the P connector to channel 1 for the 1523 or channels 1 or 2 for the 1524
- 5 Thermocouples should be connected to channel 1 only on the 1524
- 6 Turn on the 1523 or 1524
- 7 Run the 9940 software
- 8 The following message will appear on the screen, then click OK.



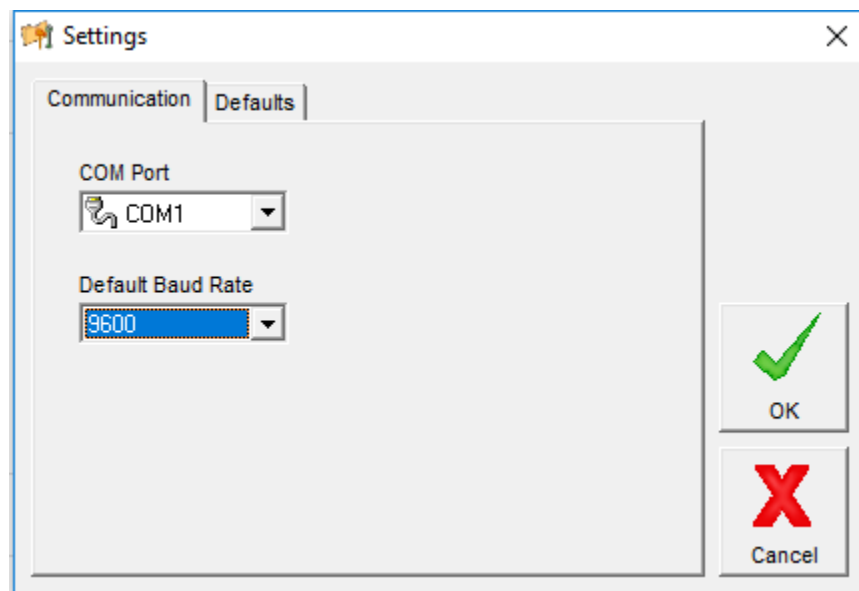
- 9 Then the following message will appear, click the icon on the right.



- 10 Click “no” on the following message

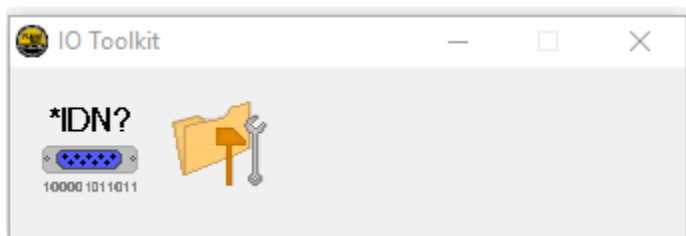


- 11 Select the port where the 1523/24 is connected to your computer, and also select the “Default Baud Rate”, we recommend 2400 or 9600, then click OK.

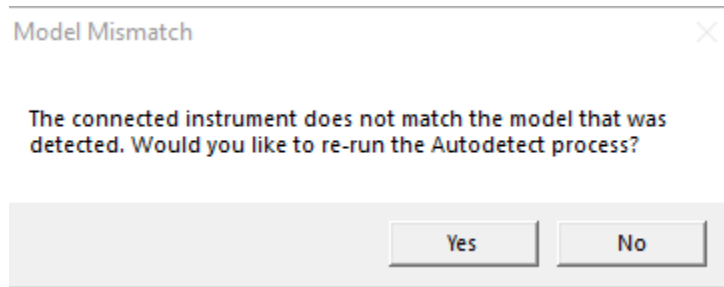


- 12 Please make sure the same baud rate is selected on your 1523/1524. To select the baud rate on your 1523/1524 do the following:
 Press SETUP
 Press the key “NEXT” twice to select “Instrument”
 Press “ENTER”, view is highlighted
 Press “ENTER”
 Keep pressing the key “NEXT” until you get to “Baud Rate”
 Use the arrows to select the baud rate then press “ENTER”

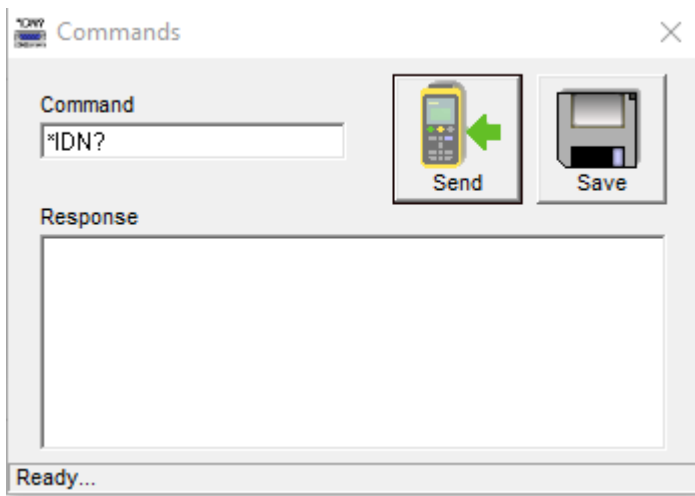
- 13 Click the icon “IDN?”



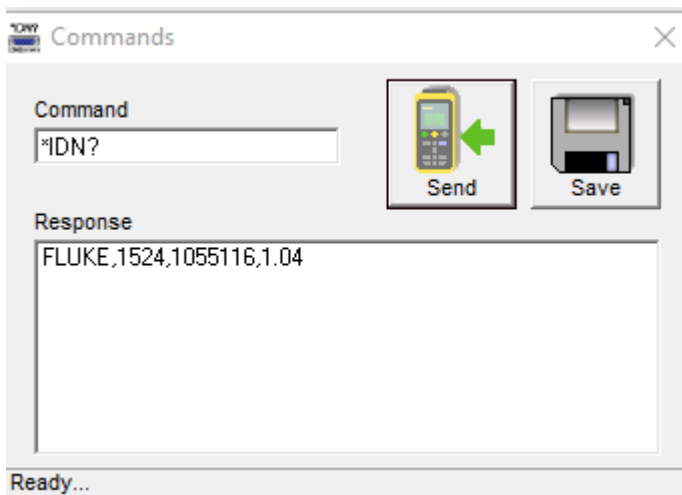
- 14 Click “No” on the following message.



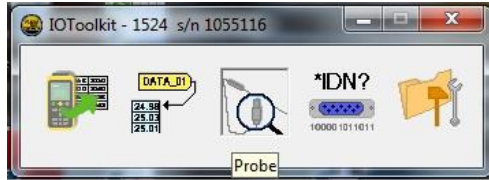
- 15 In the command bar type *IDN? and then click enter.



- 16 You should receive a message similar to the one shown below. If not close the program and open it up again. Start again from step 7 and double check the baud rate and select a different communication channel.



- 17 Close the program and open up the program again, and the following window will show on your screen. Click on the icon located in the middle.



- 18 Select the “Probe Type”, and conversion type. Under “Probe Type” you should be able to choose PRT and Thermistor, and under “Conversion Type” you should be able to choose ITS-90, ITS-90 Sub Range 5, CVD, PT100, and resistance. Fill out the missing or incorrect information.

For ITS-90 only enter the coefficients according to the following list:

A = a6, a7, a8, a9, a10, a11 from your certificate of calibration

B = b6, b7, b8, b9 from your certificate of calibration

C = c6, c7 from your certificate of calibration

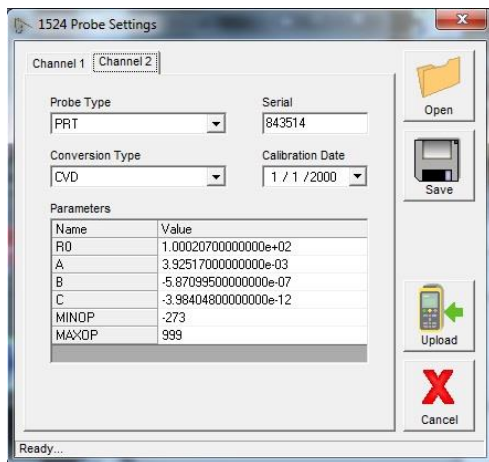
D = d7 from your certificate of calibration

A4 = a4 from your certificate of calibration

B4 = b4 from your certificate of calibration

Depending on the calibration temperature range you may not have all the coefficients listed above. For the coefficients you don't have leave them as 0.00000000e+00.

- 19 Enter the temperature limits MINOP and MAXOP for the PRT, Thermistor, or Thermocouple. Add 5°C Celsius to the max and min temperatures at which your instrument was calibrated. For example, if a PRT was calibrated from -200 to 420°C, then your MINOP=-205°C and the MAXOP=425°C



- 20 After you are done, select the Upload button.
- 21 Enter the default password 1234 or the password you have chosen and click OK.
- 22 The software will upload the information to the LEMO connector.
- 23 Probe is now programmed and can be used.