

instruNet Troubleshooting Guidelines

Application Note #69, 5/27/2003

This note provides a strategy for troubleshooting instruNet hardware. To begin, install instruNet hardware and software, per the 1 page Installation summary sheet included with all instruNet controllers (www.instrunet.com#42). This sheet summarizes the instruNet User's Manual Chapter 1, Installation. Run instruNet World software, press the Test tab, and then press the Search button. All installed, fully tested, and calibrated hardware should be listed. If this list is not correct, please continue with the following troubleshooting guidelines.

If instruNet Software Installer >= v1.4 for Windows Crashes/Stops during installation ...

Software Installation might take up to 1 Hour. If your hard disk light is blinking, you are probably Ok. Please refer to www.instrunet.com#220 for notes on how to resolve specific software installation problems. Please refer to www.instrunet.com#42 for information on how to install the instruNet software. A freeze/crash can be due to older Anti-Virus software running during installation.

If "instruNet World.exe" software crashes upon Launch ...

Power the computer Off and then On, and note that only one instruNet program can run at a time. If instruNet World crashes when run, please email to your instruNet supplier a "iNet32 Diagnostic Report.txt" diagnostic Report per Application Note #121 (please see www.instrunet.com#121). For more ideas, see "If the i2x0 Card is not seen by instruNet World", below.

If "instruNet World.exe" shows an Error Alert upon Launch ...

Email a Diagnostic Report to your instruNet Supplier, as described below. The error alert text will be captured in this Report.

If the i2x0 Card is not seen by "instruNet World" ...

Please Identify the State of your card (1 of 3) as described in Application Note #197 (www.instrunet.com#197); record any error messages; generate a diagnostic Report as described below; and email the Report, State information, and Error Messages to your instruNet supplier. Also, one can see instruNet User's Manual Appendix I, Troubleshooting; one can try a different computer or different i2x0 card (if possible); and one can try Updating/Removing/Reinstalling the instruNet Driver per AN #197 if on a Windows Nt/2k/XP/> computer, or via the following method if on a Windows 95/98/Me computer:

To Update the iNet-230 Pcmcia Windows 95/98/Me Driver: Insert the iNet-230, yet do NOT run instruNet World.exe. Run "Start \ Control Panels \ System" and then select "Device Manager". You should see the card listed under one of the following directories: yellow question mark next to "Pcmcia Card Services", yellow question mark next to "Other Devices" or "Data Acquisition Card". If you are not certain, double-click on the suspected entry and select Resources. The iNet-230 has one memory range that is 4FFF long (the iNet-200 PCI card has 4 memory ranges). Double-click on the iNet-230 entry, select the "Driver" tab, and press "Update Driver". It will ask you to install a driver. Please browse and navigate to "Program files \ instruNet \ Pcmcia Win95 Driver \", and press Next to move through the installation process. It might say "Please insert disk labeled 'Program files \ instruNet \ Pcmcia Win95 Driver \' directory". At this point, you must navigate to "Progra~1 \ instru~1 \ Pcmcia~1 \ iNet95Pcm.vxd". You might need to type the "iNet95Pcm.vxd" name into the file name field, while "Progra~1 \ instru~1 \ Pcmcia~1 \ \" is selected in the Directory area. When done, the card should be listed under "Data Acquisition Cards" in the Device Manager.

To Update the iNet-200 Pci Windows 95/98/Me Driver: This is the same as updating the Pcmcia driver, except one must navigate to "Program files \ instruNet \ PCI Win95 Driver \", navigate to "Progra~1 \ instru~1 \ PciWin~1 \ iNet95.vxd", and type the "iNet95.vxd" file name field.

If the i100 Data Acquisition Box is not seen by "instruNet World" ...

* Check +5V/+12V/-12V power supply voltages at the instruNet device screw terminals with a Volt Meter. You should see at least 4.5V, and +-11V. Typically, power comes from the i200 PCI card directly, or from an external power supply if working with the i230 card.

* Try another DB25 male to DB25 female cable. Make sure the instruNet DB25 Terminator is installed. See the instruNet User's Manual Appendix I, page 2. To identify a faulty component, try another i100 box, another i2x0 card, or another DB25 cable; if possible.

* Careful: If one hooks up instruNet devices while power is applied, it is possible for the incorrect voltages to be applied to the circuitry for very short periods of time, causing damage. Also, plugging non-instruNet equipment into instruNet hardware can cause damage.

* If problems persist, please email a diagnostic Report to your supplier, as noted below, and please describe the problem including lists of steps to re-produce the problem and alert text.

If communication / operation with your i100 Box is Intermittent ...

* To identify if this is related to a buggy mechanical connection within wiring/cables: Run instruNet World, press the TEST tab at the bottom of the window, press the BIG TEST button to test continuously until you mouse down or an error is seen (in which case, an alert appears), and then pull / wiggle wires and connectors while looking for that alert. If poking at a specific place consistently produces an alert, you have a bad connection at that place.

* To identify if this is related to temperature (heat expands materials causing buggy connections to be Intermittent), blow heat or cold (e.g. hair dryer, heat gun, place in fridge for 20 minutes, cold spray), while running Big Test (described above) and looking for an alert.

To Email an instruNet Diagnostic Report to your Supplier ...

Run instruNet World software, press the TEST tab at the bottom of the Window, press the REPORT button to print the diagnostic report to the window, copy the text to the clipboard (Windows Control C), paste the text into an email window (Windows Control V) and then email to your instruNet supplier for comment. This report can also be generated by pressing the "SAVE DEBUG REPORT TO DISK" button within an error alert.

