

Installation Guide



Installation Instructions for Model:

DI-1000TC Series

Revision A

DI-1000TC Series Installation with WINDAQ® Acquisition and Playback Software and PalmDaq Software

SYSTEM REQUIREMENTS

Hardware	Intel or compatible PC
Operating System	Windows 2000, XP, or Vista*
Disk Space	40MB plus space for recorded data

*Serial port products are not supported in Vista.

This installation guide explains how to install all DATAQ Instruments DI-1000TC Series products to your personal computer. In order to connect a DI-1000TC to your PC, you will need to purchase an adapter. The DI-1000-USB adapter provides a USB connection to your PC. The DI-1000-232F adapter provides a Serial Port connection to your PC. The DI-1000-232M adapter provides a Serial Port connection to your PDA. Follow the installation instructions for the adapter you purchased. Only one adapter is required when installing multiple units in a daisy chain.

Table of Contents

Section A: DI-1000-232F Installation	3
Section B: DI-1000-USB Installation	4
Section C: DI-1000-232M Installation	7
Section D: Installing Multiple Devices in a Daisy Chain	8
Section E: DI-1000 Configuration Software	11
Section F: Documentation and Support	11

Section A: DI-1000-232F Installation

You **MUST** purchase an adapter in order to connect your DI-1000TC to your computer. The DI-1000-232F is designed to connect your DI-1000TC through your PC's RS-232 Serial Port.

NOTE: This adapter is not supported in Windows Vista.

If you are installing multiple units please read Section D: Installing Multiple Devices in a Daisy Chain before continuing.

1. Connect the DI-1000-232F adapter to your computer's Serial Port using the supplied cable.
2. Connect the DI-1000TC to the DI-1000-232F adapter using a standard CAT-5 Ethernet cable.
3. Connect and apply power to the DI-1000TC.
4. Insert the *WINDAQ Resource CD* into your CD-ROM drive and run the installation software (if the Windows Autoplay feature is enabled, the installation software will start automatically).
5. Select the radio button "Install Software for all other products" and click **OK**.
6. Select "WINDAQ/Lite, WWB, and Software Development Kit" and click **OK**.
7. Select "DI-1000 Series" and click **OK**.
8. Select "PC (using WINDAQ/Lite)," "PDA (using PalmDaq)," or "both" depending on how you may acquire data and click **OK**.
9. The Welcome! dialog box allows the user to cancel the installation. Click **OK** to continue installation or **Cancel** to abort.
10. Select "RS-232" and click **OK**.
11. Specify the COM port number (typically COM1) your instrument is connected to and click **OK**. If you do not enter this correctly, you may run *WINDAQ Lite Data Acq Setup* from your WINDAQ Program Group to change it.

12. Read the license agreement and either “Accept and Continue” or “Do not accept and stop.”
13. Select a destination directory.
14. Specify a Windows Group Name.
15. Select the Baud Rate. You should not need to change the Baud Rate - all DI-1000TC modules come pre-configured from the factory. If you do not enter this correctly, you may run *WINDAQ Lite Data Acq Setup* from your WINDAQ Program Group to change it.
16. If the software finds a previous version, you will be prompted to create backups. The installation program also allows you to cancel here.
17. You should now see the **Done!** dialog box. Installation is complete. To exit the installation program click **OK**.

Section B: DI-1000-USB Installation

You **MUST** purchase an adapter in order to connect your DI-1000TC to your computer. The DI-1000-USB is designed to connect your DI-1000TC through your PC's USB Port. If you are installing multiple units please read Section D: Installing Multiple Devices before continuing. USB instruments require driver installation before they can communicate with your PC.

1. Insert the *WINDAQ Resource CD* into your CD-ROM drive. If the Windows Autoplay feature is enabled, the installation software will start - exit out of the installation software.
2. Connect the DI-1000-USB adapter to your computer's USB Port using the supplied cable.
3. The Windows “Found New Hardware Wizard” runs. Click through the defaults. When completed, the “Found New Hardware Wizard” will run again - and again you should click through the defaults until you exit the Wizard. The DI-1000-USB requires two drivers to be installed, a Serial Port and a USB driver. This will look like two instruments are installed when there is only one.

NOTE: If you receive the Microsoft-issued warning that the software “has not passed Windows Logo testing to verify its compatibility with Windows XP” click **Continue Anyway**. You may see this warning twice – once for each driver (USB and Serial Port).

Hardware Installation



The software you are installing for this hardware:

DATAQ DI-1000TC-USB

has not passed Windows Logo testing to verify its compatibility with Windows XP. [\[Tell me why this testing is important.\]](#)

Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.

4. Connect the DI-1000TC to the DI-1000-USB adapter using a patch cable.
5. Connect and apply power to the DI-1000TC.
6. Access the Windows Device Manager and locate the Ports (COM & LPT) icon and click the small “+” sign to expand the menu and see all the devices installed.
7. Note the COM number that has been assigned to your device and close the Device Manager.

8. Insert the *WINDAQ Resource CD* into your CD-ROM drive and run the installation software (if the Windows Autoplay feature is enabled, the installation software will start automatically).
9. Select the radio button “Install Software for all other products” and click **OK**.
10. Select “WINDAQ/Lite, WWB, and Software Development Kit” and click **OK**.
11. Select “DI-1000 Series” and click **OK**.
12. Select “PC (using WINDAQ/Lite),” “PDA (using PalmDaq),” or “both” depending on how you may acquire data and click **OK**.
13. The Welcome! dialog box allows the user to cancel the installation. Click **OK** to continue installation or **Cancel** to abort.
14. Select “USB” and click **OK**.
15. Specify the COM port number your instrument is connected to (steps 6 and 7 above) and click **OK**. If you do not enter this correctly, you may run *WINDAQ Lite Data Acq Setup* from your WINDAQ Program Group to change it.
16. Read the license agreement and either “Accept and Continue” or “Do not accept and stop.”
17. Select a destination directory.
18. Specify a Windows Group Name.
19. Select the Baud Rate. You should not need to change the Baud Rate - all DI-1000TC modules come pre-configured from the factory. If you do not enter this correctly, you may run *WINDAQ Lite Data Acq Setup* from your WINDAQ Program Group to change it.
20. If the software finds a previous version, you will be prompted to create backups. The installation program also allows you to cancel here.
21. You should now see the **Done!** dialog box. Installation is complete. To exit the installation program click **OK**.

Section C: DI-1000-232M Installation

You **MUST** purchase an adapter in order to connect your DI-1000TC to your PDA. The DI-1000-232M is designed to connect your DI-1000TC to your PDA. You do not need to connect your DI-1000TC to your PC.

1. Insert the *WINDAQ Resource CD* into your CD-ROM drive and run the installation software (if the Windows Autoplay feature is enabled, the installation software will start automatically).
2. Select the radio button “Install Software for all other products” and click **OK**.
3. Select “WINDAQ/Lite, WWB, and Software Development Kit” and click **OK**.
4. Select “DI-1000 Series” and click **OK**.
5. Select “PDA (using PalmDaq),” or “both” depending on how you may acquire data and click **OK**.
6. The Welcome! dialog box allows the user to cancel the installation. Click **OK** to continue installation or **Cancel** to abort.
7. Select “RS-232” and click **OK**.
8. Specify a COM port number and click **OK**. If you do not enter this correctly, you may run *WINDAQ Lite Data Acq Setup* from your WINDAQ Program Group to change it. You will only need to change it if you decide to acquire data to your PC.
9. Read the license agreement and either “Accept and Continue” or “Do not accept and stop.”
10. Select a destination directory.
11. Specify a Windows Group Name.
12. Select the Baud Rate. You should not need to change the Baud Rate - all DI-1000TC modules come pre-configured from the factory. If you do not enter this correctly, you may run *WINDAQ Lite Data Acq Setup* from your WINDAQ Program Group to change it.
13. If the software finds a previous version, you will be prompted to create backups. The installation program also allows you to cancel here.

14. You should now see the **Done!** dialog box. Click **OK** to exit the installation program.
15. HotSync your PDA to your PC to install the software to your PDA.

Section D: Installing Multiple Devices in a Daisy Chain

Up to 8 DI-1000TC instruments (64 channels max) may be daisy-chained together to form a distributed synchronous network.

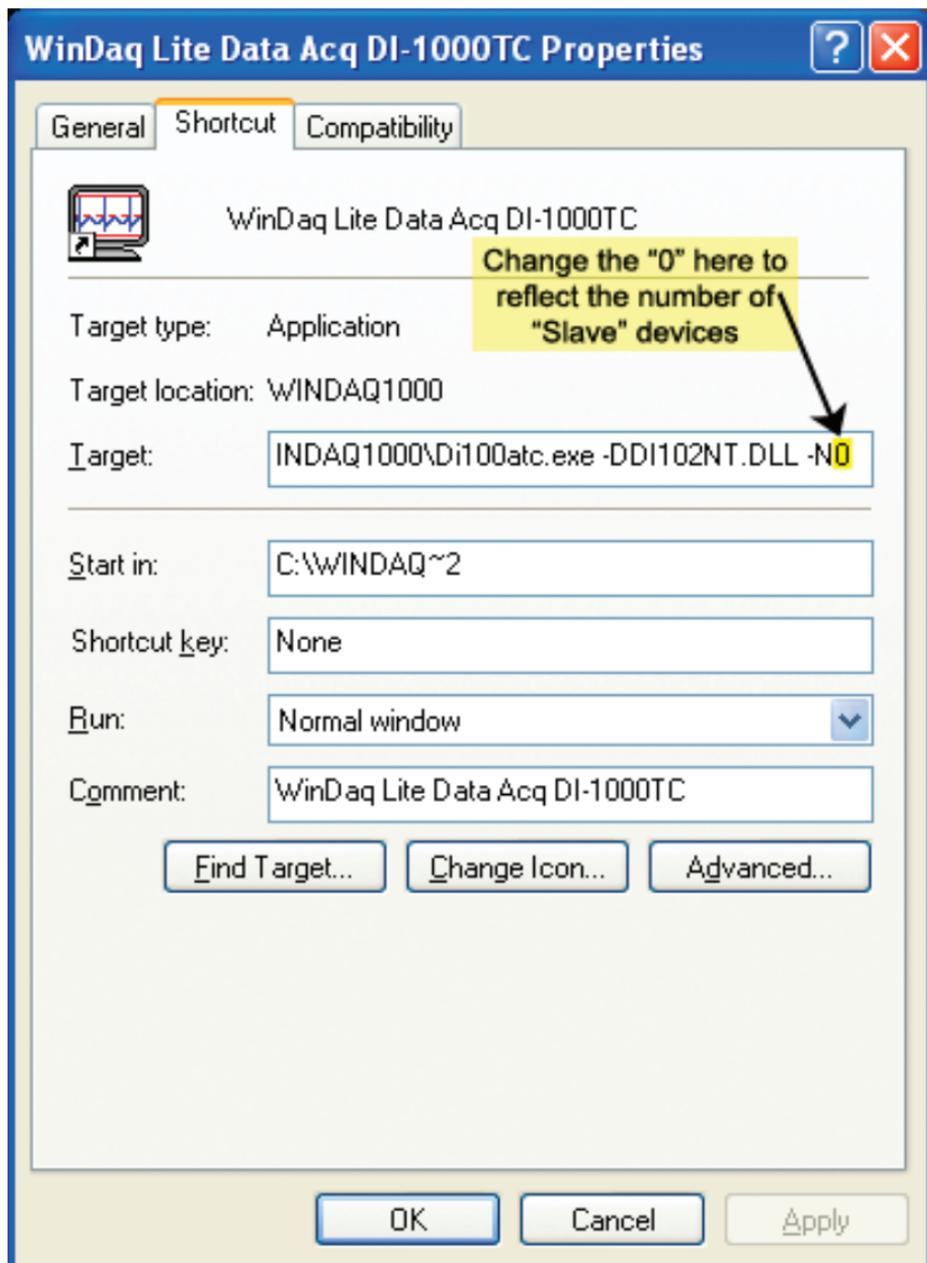
1. Connect the first instrument in the chain to your adapter (DI-1000-USB or DI-1000-232) and install it using the appropriate installation instructions. This is the “Master” instrument.
2. Run the DI-1000 Configuration Software found in the Windows Program Group specified during installation. The default is *Start > Programs > WinDaq > DI-1000 Config*.
3. Click on **Configure > Setup** in the DI-1000 Config menu.
4. Enter “1” in the text boxes for **Address**, **Previous Device**, and **Master**.
5. Use the chart below to select a **Baud Rate**.

# of Instruments in Chain	Suggested Baud Rate
1-4	9600
5-8	19200

6. Click on **Write** to configure the instrument.
7. Disconnect the instrument from the adapter.
8. Connect and power the next instrument in the chain.
9. Enter “2” for **Address**. Enter “1” for **Previous Device** and **Master**. This device is “Slave 1.” Enter the same **Baud Rate** entered in Step 5.
10. Repeat steps 7 and 8 for each device. Increment **Address** and **Previous Device** by one for each subsequent instrument. **Master** should always be “1” and the **Baud Rate** should be the same for each device.

11. After the setup is complete for all devices in the chain, connect the “Master” unit to the adapter.
12. Insert a standard CAT-5 cable to one of the RS-485/422 ports on the back of the “Master” instrument. It does not matter which port you insert the cable into.
13. Connect the other end of the CAT-5 cable to one of the RS-485/422 ports on the back of the “Slave 1” instrument. It does not matter which port you insert the cable into.
14. Connect each instrument in order by **Address** (assigned in step 9) in the same manner.
15. Power each instrument using one of the Power jacks on the rear of each instrument. Power may be daisy-chained in the same manner as the CAT-5 cables (four instruments max for each power supply).
16. Once all units have been connected and powered you must change the Target in the Shortcut Properties in WINDAQ Software to reflect the number of “Slave” devices in your network.
 - a. Right-click on the **WinDaq Lite Data Acq DI-1000TC** program in the Windows startup menu and select **Properties**. Default is *Start > Programs > WinDaq > WinDaq Lite Data Acq DI-1000TC*.
 - b. Click on the **Shortcut** tab.
 - c. Change “-N0” to “-Nx” at the end of the **Target** text box where x is the number of “**Slave**” units installed in the daisy chain (total number of instruments minus 1). See the screen shot on page 10 for reference.
 - d. Click **OK** to close the Properties dialog box.

Your distributed synchronous data acquisition system for thermocouple measurements is installed and ready to run.



Section E: DI-1000 Configuration Software

Use the DI-1000 Configuration software to change baud rate, COM port designation, Address ID, set the thermocouple type, or calibrate the instrument. This utility is installed when installing WINDAQ software and is located in the program menu group designated during installation (default is *Start > Programs > WinDaq > DI-1000 Config*).

Although your device comes from the manufacturer calibrated, you can verify or even change calibration using the DI-1000 Configuration Software. You should verify your calibration about once a year.

See the DI-1000 Configuration software help files for more information regarding specific functions.

Section F: Documentation and Support

Full Hardware documentation is available from the Windows Program Group designated during installation (default is *Start > Programs > WINDAQ > Documentation > DI-xxx Hardware Manual*).

A Fast Start guide with multimedia demonstrations is available after installation from the Windows Program Group designated during installation (default is *Start > Programs > WINDAQ > Documentation > Multimedia Fast Start Guide to WinDaq Software*) or from your hard drive at *C:\Windows\Help\Multimedia Fast Start Guide to WinDaq Software.pdf*.

Context-sensitive Help is available in all software programs. Highlight a menu item and press **F1** for help regarding that menu item or click on the **Help** menu item to access the help files.

Support Forum: <http://support.dataq.com>

E-mail: support@dataq.com

Phone: 330-668-1444 Monday through Friday 8AM to 5PM EST



DATAQ Instruments, Inc.
241 Springside Drive
Akron, Ohio 44333 U.S.A.
Telephone: 330-668-1444
Fax: 330-666-5434
www.dataq.com
Designed and manufactured in the
United States of America

Copyright © 2007 by DATAQ Instruments, Inc.

DATAQ Instruments' hardware and software products are not designed to be used in the diagnosis and treatment of humans, nor are they to be used as critical components in any life-support systems whose failure to perform can reasonably be expected to cause significant injury to humans.

DATAQ, the DATAQ logo, and WINDAQ are registered trademarks of DATAQ Instruments, Inc. All rights reserved.