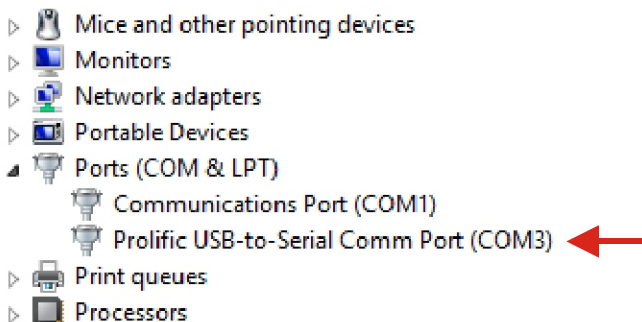# DAC-2U16 Quick Start

(for use with Windows XP*, Vista, Windows Server, Windows 7, 8.1, Windows 10 and Windows 11)

*XP requires Service Pack 3

(Step 1) Connect to the Internet. This permits any security or software updates to occur during installation. If you do not have an Internet connection, you may skip this step (please note that if you are not connected to the Internet, the installer will delay for about 30 seconds while attempting to connect).

(Step 2) Connect your DAC-2U16 Digital to Analog Converter to any available USB port on your computer using a CC-USBB cable (1 to 15 foot). A high percentage of systems will be up to date and you will not see any activity or a pop-up message (allow up to 30 seconds for any system message). If your USB Com driver is out of date, you may receive a message that your system is being updated or a new driver installed. Allow the update to occur before you move to the next step. If you do not see activity or receive a system message, proceed to step 3.

(Step 3) Insert the installation CD or USB flash drive and wait for the security message (with a USB flash drive, you may need to browse to the drive icon from the My Computer link). OK or click the startup.exe file to start the installer dialog.

(Step 4) Check your USB Com driver by clicking on the "Open Device Manager" button in the installer dialog window and expanding the "Ports (COM & LPT)" category (see the DAC-2U16 Technical Reference if you have difficulty or go directly to Device Manager from Control Panel). If you see a "Prolific USB-to-Serial Comm Port" entry, this is your USB Com driver* and the com port assigned is to the right of the entry. Right click on the entry and select "Properties" and click the "Driver" tab. Your USB Com driver must be Prolific version 3.4.62.293 or higher (dated 10/17/2013 or later). If your USB Com driver is not up to date, right click on the entry and select "Update Driver Software". If your USB Com driver is up to date then please note the Com port number assigned and jump to step 5.

*verify that this is the com port assigned to the DAC-2U16 by unplugging the DAC-2U16 from your USB port and watching the entry in device manager. The entry should disappear and then reappear when you plug the DAC-2U16 back in.

If you do not have an Internet connection or are having problems with the USB Com driver installation, disconnect the DAC-2U16 USB cable from your computer and install the USB Com driver from your CD by clicking on the "Install USB Com Driver" button. Please note that you may have to remove any out of date Prolific Com drivers on your system before the current driver will install correctly. It is important that you use the remove feature on your CD (not the remove feature in Device Manager). The remove feature is shown after clicking the "Install USB Com Driver" button from the installer dialog window (allow up to 30 seconds for the installer to load and appear).

(Step 5) After you have verified or installed the up to date USB Com driver, reconnect (if not already connected*) your DAC-2U16 Digital to Analog Converter to the same USB port and install the DAC-2U16 device driver** by clicking the "Install EECI Device Driver" button from the installer dialog window (if you have auto start disabled, you may browse to the Windows Driver folder and double click on setup.exe). When installing the DAC-2U16 device driver on a Windows XP or Vista computer, double click on setup.exe in the XP-Vista folder.
*if you reconnect your DAC-2U16 to a different USB port, a different com port may be assigned.

Click the "Install Help Files" button to install important trouble-shooting and reference information before you close the installer.

**Please note that the Microsoft .Net Framework must be installed on your system. The .Net Framework is already installed if you have Windows 7 or higher. If the .Net Framework is not installed on your computer, the installation program will attempt to download and install the .Net Framework from the Microsoft Update website through your internet connection. This may take 5 minutes or longer. In order for the .Net Framework to install correctly, your computer must be up to date with Windows Update. This is especially important with Windows XP* and Vista. You may update your computer by clicking on the start button, All Programs, Windows Update and clicking on "Check for updates".   *for XP, Service Pack 3 must be installed.

(Step 6) After the DAC-2U16 device driver is installed, the DAC-2U16 com port should be detected and a pop-up will prompt you for the com port to be used with your DAC-2U16 Digital to Analog Converter (correct com port should be shown).You may edit the com port if incorrect. The DAC-2U16 User Interface will now open and the label just under the COM port indicator should show that Com port open.

(Step 7) Test your analog outputs by connecting a multimeter (set to 10VDC range) with the negative probe on a GND terminal. A jumper must be connected across each analog output terminal and it's output sense terminal. Connect the positive multimeter probe to the channel 1 output terminal and enter 32768 in the channel 1 Analog Level output box. Click the S button to set the analog level. Your multimeter should show 2.5 volts (which will be mid range with a 5V reference). Enter a number between 0 and 65535 (16 bit resolution) in the Analog Level output box for the channel to be tested. The voltage output should be 0 volts when 0 is set and 5 volts when 65535 is set. The DAC-2U16 output voltage should increment from 0 to 5 volts DC with a 5V reference (in 65,536 increments) as the value in the Analog Level box is changed from 0 to 65535.
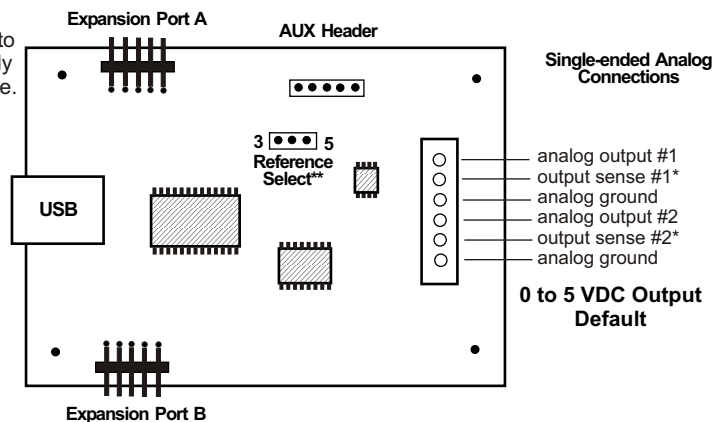
After testing is complete, you may label your analog outputs by going to "Setup" in the DAC-2U16 User Interface and clicking the D to A Setup button. The DAC-2U16 Data Logger may be started by checking the Enable box. A data log entry will be made each time a change is made to any of the Analog output levels. The settings will not go into effect until the Apply button is clicked. Click the "Tray" button to place the User Interface in "driver only" mode. You will see a red 2 icon in your system tray by the clock (bottom right of screen). Click the red 2 icon to re-open the DAC-2U16 User Interface. Click the "Unload Device Driver" to unload the driver*.

*Please note that by default, the DAC-2U16 device driver is only loaded on demand to conserve system resources. You may install the DAC-2U16 device driver permanently by checking the "Driver Only" check box under Setup in the DAC-2U16 User Interface. You will then always see the DAC-2U16 system icon in your system tray along with the other system devices (such as your speaker, printer or display adapter). Click the red 2 icon in your system tray to open the user interface. Please refer to the DAC-2U16 Technical Reference for additional info.

Complete Technical Reference is located on your Installation CD
Call (937) 349-6000 or (800) 842-7714 for free technical support

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*after testing is complete (and for best precision) remove the jumper to the analog output terminal and connect the output sense as close as practical to your measurement device. This feature corrects for any voltage drop.