How to Setup Quasi-absolute Encoders for Use with

8743-CL Closed-Loop Picomotor Controller

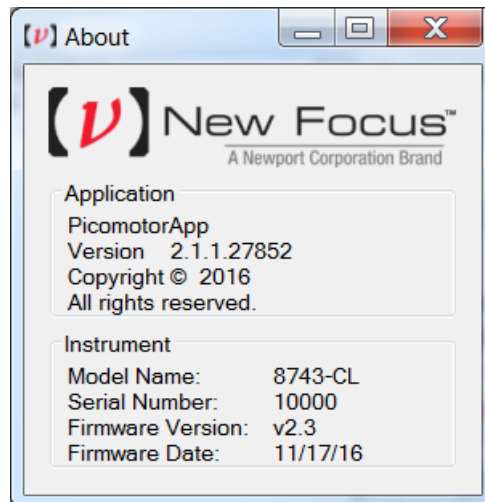**Required Hardware, Firmware, Software, and Documents:**

- 8743-CL Controller with firmware version 2.3 (or above)
- PicomotorApp Windows software version 2.1.1 (or above)
- 8743-CL User Manual (Revision B or above)
- 8743-CL Quasi-Absolute Encoder Support Addendum (Revision A or above)
- Positioner with quasi-absolute encoder

How to get the latest user manual, firmware, and software?

To download the latest user manual, software and firmware, please visit Newport.com website and search for 8743-CL Closed-loop Picomotor Controller product page. The needed files are in the Resources & Downloads section.

How to determine controller firmware version?

Launch the PicomotorApp and wait until it detects the 8743-CL controller. Select "Help" menu and click on "About". The software will open a dialog box as shown in the picture below. The software and controller firmware versions are shown in this dialog box.
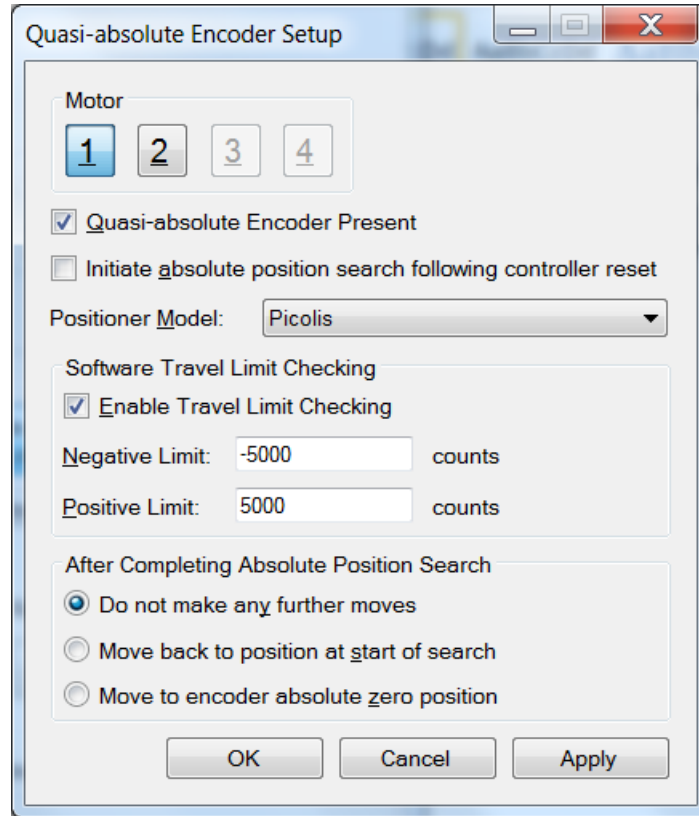

How to update controller firmware?

Download the latest firmware from the link provided above. Extract the contents of the zip file and install the Firmware Downloader application. Launch this application after installation is completed and follow onscreen instructions to update the controller's firmware.

How to setup the controller?

To setup the controller for use with a positioner that has Quasi-absolute Encoder, launch the PicomotorApp and select "Setup" menu and click on "Quasi-absolute Encoder". The application will

open a dialog box as shown in the picture below. Make desired changes for the motor and click on OK button.

How to find Absolute Position?

Once the controller has been setup for quasi-absolute encoder, click on "Home" tab and click on "Find Absolute Position" button. All the controls in the software will be disabled and grayed out until the controller finishes the process of finding the absolute position.

Learn More About Quasi-Absolute Encoder Support

To learn more about the 8743-CL controller and quasi-absolute encoder setup read the addendum to 8743-CL User's Manual.