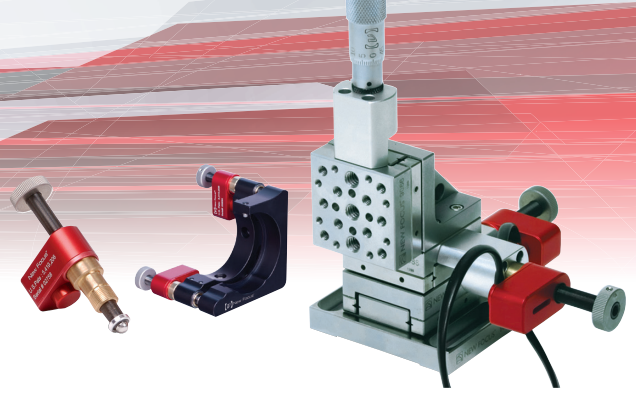


# Picomotors FAQ:



**Q:** What is the difference between an open-loop and closed-loop Picomotors?

**A:** Steps with the open-loop Picomotor are not repeatable. The open-loop Picomotor has no feedback mechanism to measure how far it has moved. The open-loop Picomotor experiences hysteresis, which means that moving 1000 steps forward and then 1000 steps backward will not get you to the same place. If it is important for you to be able to get back to the same exact place when moving your Picomotor, you should purchase a closed-loop Picomotor (8310, 8410, or 9066-COM-E with open-loop Picomotor attached).



**Q:** What other parts do I need to run my Picomotor?

**A:** In general, you can order the 8742-4-KIT, which will contain the driver and all the cabling you need. Exceptions:

- Closed-loop Picomotors (8310, 8410, 906X-COM-E) will require the 8743-CL-2-KIT.
- Three Axis Mirror Mounts (8806, 8808, 8809, 8812, 885X, and 8051) require one 8725 adaptor cable to connect to the 8742 controller.
- Kinematic Multi-Axis Stages (8071, 8081, 8082, 8095) require two 8725 adaptor cables to connect to the 8742 controller. The 8081, 8082, and 8095 would further require the 8742-8-KIT, since they have more than 4 axes of motion.



**Q:** What does the driver kit include?

**A:** The 8742-4-KIT includes the 4-axis 8742 driver, a power supply, and a MicroAB USB cable to connect to the computer. The 8742-8-KIT and the 8742-12-KIT, contain two and three drivers, respectively, which can drive up to 8 or 12 Picomotor axes, respectively. These kits additionally come with stacking plates, cables to create a communication network between the drivers, and cables to power all the drivers from one power supply.



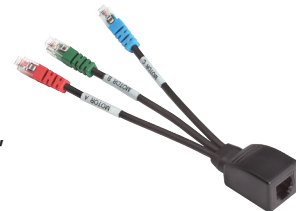
**Q:** Do I need multiple power supplies to power multiple drivers?

**A:** No. You can purchase a single power supply (8745-PS) and a power connection cable (8745-PWR-CBL) to power both devices. Up to 3 devices can be powered from a single power supply by purchasing additional power connection cables.



**Q:** Why won't the connector on my Picomotor mount fit in the driver?

**A:** If you have a three axis mirror mount (8806, 8808, 8809, 8812, 885X, 8051), you need an 8725 adaptor cable to connect to the driver. If you have the multi-axis kinematic stages (8071, 8081, 8082, 8095), you need two 8725 adaptor cables to connect to the driver(s).



**Q:** Can I run two axes from my Picomotor simultaneously?

**A:** No. You would need two drivers to run two axes simultaneously. Picomotor drivers can interface with four Picomotors, but they can only move one Picomotor at a time due to power constraints.



# Picomotors: FAQ (cont'd)

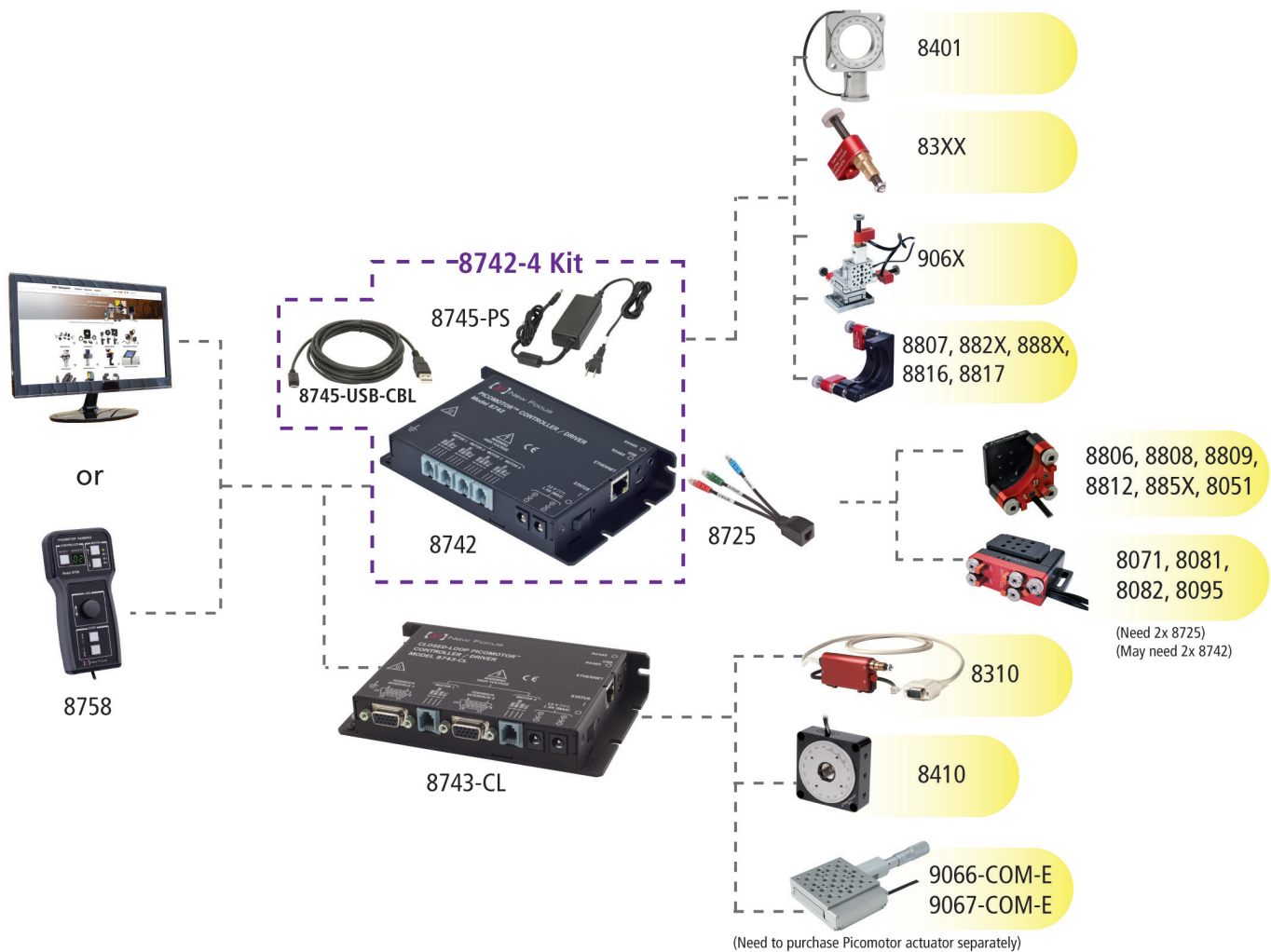
**Q:** Do I have to run the Picomotor from my computer?

**A:** No. You can also purchase the 8758 Handpad, which connects directly to the driver and allows you to control the Picomotors.



**Q:** What computer requirements are there to run my Picomotor from my computer?

**A:** Our driver can connect to the computer via Ethernet or USB. To run our software or use our USB drivers you would need a Windows computer. The Ethernet connection may be used with any operating system. For those who would like to write their own software to control the device, we provide sample C# and LabVIEW programs along with command libraries that can be used in many programming environments.



For more information call: 800.222.6440  
or visit our website [www.newport.com/newfocus](http://www.newport.com/newfocus)