



DRIVER INSTALLATION RP100 AND MP240

The RP100 Power supply and MP240 multiplexer share the same device driver. Razorbill Instruments officially supports both products with Windows 7, 8 and 10. It is also possible to use them with a computer which is running Linux or Mac OS X. Although this is not officially supported, Razorbill Instruments can offer advice on how to get started, please contact us with any questions. The remainder of this document deals with installing the drivers on Windows.

On Windows 10, it is possible to use both devices without installing any extra drivers, however this is not recommended. The drivers provided by Razorbill Instruments are more reliable than the ones built into Windows, and were used during testing and certification. As a result, the devices are not guaranteed to meet the EU requirements for noise immunity if the Razorbill drivers are not used. The Razorbill driver also has the advantage of making the devices appear in your system as “RP100 power supply” and “MP240 multiplexer” instead of appearing as anonymous COM ports.

OBTAINING THE DRIVERS

The newest version of the drivers will be available on the Razorbill Instruments website. Razorbill Instruments may occasionally issue updates if a bug is found, so it is always advisable to download a new version from the website when installing. Once downloaded, double click on the driver package to extract it, depending on your system settings, you may see a security prompt asking if you want to run the file and giving the publisher as “ToriLogic GmbH & Co”. Click run, and select a folder to extract to. The extracted files will only be used for the installation, and can be deleted afterwards.

INSTALLING THE DRIVERS

Unpack the device. If it is an RP100, connect the mains lead and switch it on. Refer to the RP100 User Manual for details on how to do this. Then:

1. Connect the USB cable between device and the computer.
2. You may see a notification “Installing driver software”. After a few seconds, a dialog box should pop up asking “How do you want to search for driver software”. If so, skip to step 6. If not, continue with step 3.
3. Press the start key, then type “Device Manager” and press enter. The Windows device manager should open.
4. Find the device in the list, it will be listed under “Other Devices” on windows 7 or 8, and under “ports (COM & LPT)” on windows 10. It may have a yellow exclamation point icon.
5. Right click on the device. Click “update driver software...” if it is available. If not, click “properties” then select the drivers tab and click the “update drivers” button. You may need to click “change properties” on the general tab and enter an admin password to enable the update drivers button.
6. In the “How do you want to search for driver software” dialog, select the option “Browse my computer for driver software”.
7. Click the browse button, and locate the files you extracted after downloading them. Select the extracted folder, ensure

- the “include subfolders” box is ticked, and click “Next”. If you had to enter an admin password, you may now need to navigate to C: > users > and look for your user name in order to find the files (the “documents” and “desktop” links now point to the administrator’s files, not your usual user’s)
8. Depending on your security settings, you may see a dialog asking if you want to install the driver. The publisher will be listed as “ToriLogic GmbH”. Click “Install”.
 9. You should then see a confirmation dialog indicating that the install was successful.

You can now delete the files you downloaded, as the relevant ones have been copied into the Windows driver store.

SERIAL PORT CONFIGURATION

Once the drivers are installed, windows will recognise the power supply or multiplexer as a virtual serial port, and assign a COM port. Windows will normally allow you to set baud rate, stop bits, parity etc. for this port, but as there is no physical serial connection within the device, these settings have no effect and should be left at the defaults.

COM PORT NUMBERING

Windows will automatically assign a COM port every time the power supply or multiplexer is connected. It may be advantageous to have the same COM port number every time, especially if you have more than one power supply or multiplexer and want to be able to distinguish them in software. By default, Windows will only reuse the number if the same device is connected to the same physical USB port. If you want to change the port number used for the device, you can do so:

1. Open Windows Device Manager.
2. Double click on the device to open the properties dialog box.
3. Click on the “port settings” tab.
4. Click the “advanced” button (you may need to click “change properties” on the general tab and enter an admin password to enable the advanced button)

5. Select a new COM port from the dropdown box.

Windows will then remember that combination of device and USB port, and reuse your chosen COM port if it is plugged in again. By plugging the device into each physical USB port in turn and going through these steps, you can have a consistent COM port for that power supply. This also works with any other USB-serial device.

SENDING COMMANDS TO THE DEVICES

It is expected that most users will want to integrate the power supply or multiplexer with a complete, computer-controlled measurement system. In which case, the measurement system should use raw serial IO or a VISA implementation to communicate with the device.

For testing, or in a less automated lab environment, it may be useful to have a graphical user interface for the devices. These interfaces are not included in the driver package but can be downloaded from the Razorbill Instruments website. The interfaces display the serial commands they are using, so they offer a convenient way of getting started with the command set.

For more information about how to connect, and the definition of the various commands the devices use, refer to the RP100 and MP240 User Manuals.

