



R-500 Wideband Computer Reflash Guide

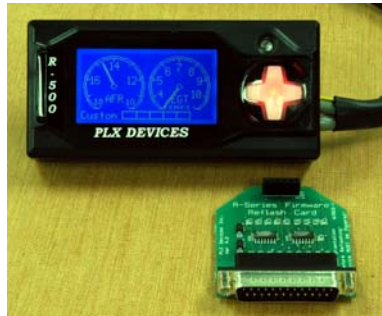
(V 1.11) January 23, 2006

Caution:

Logged data and R-500 settings will be lost when the controller is reflashed. Please back up all data logged sessions onto your PC and take note of your user settings before proceeding with the firmware update.

Summary:

This document outlines the procedures to update the firmware on your R-500. You can check the firmware version of the R-500 from the bottom line of the boot up splash screen.



Procedure:

- 1) Download the latest firmware from the PLX Website's support page and save files into a folder on your hard drive.
- 2) Insert the "R-Series Firmware Reflash Card" into your PC's parallel port. If working with a desktop computer you may wish to purchase a female to male parallel cable as an "extension" cord. It may be necessary to remove the hardware (screws) on the re-flash card if you are having difficulties fitting it on the parallel port.



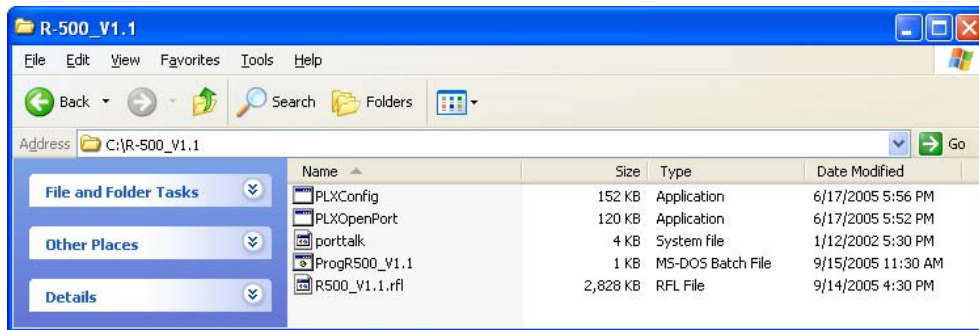
Version 1.11 January 23, 2006

www.plxdevices.com

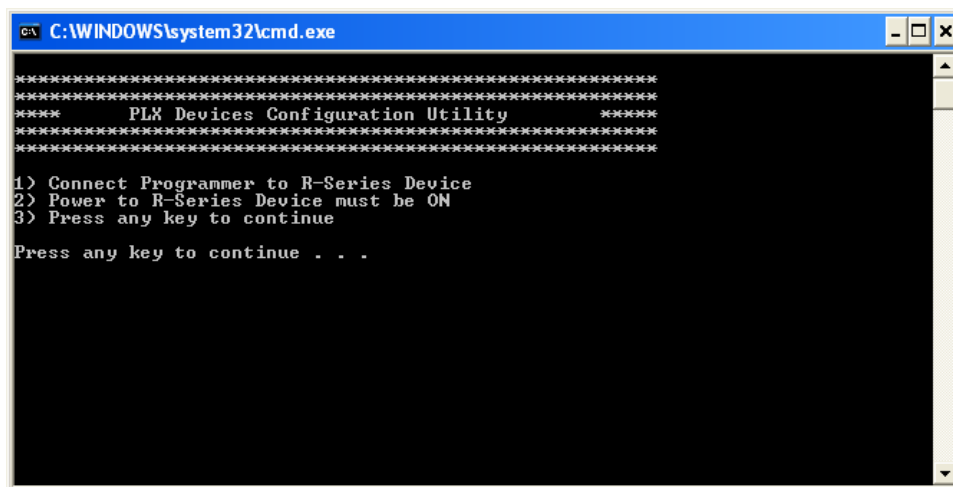
(408)745-7591



3) Double click the ProgR500_V1.11 batch file (ProgR500_V1.11.bat) to start the re-flash utility. Please note the following image may be out of date due to file name changes.



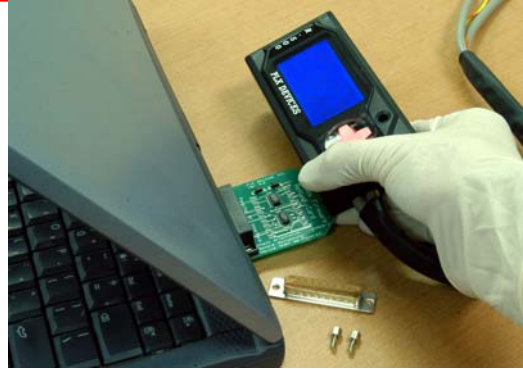
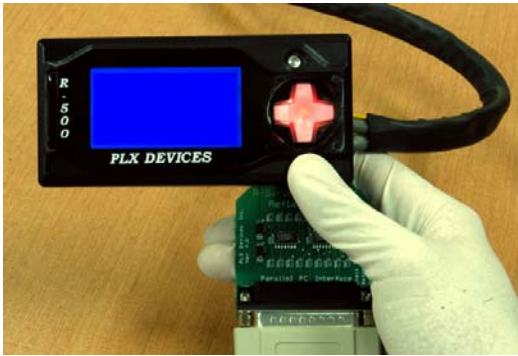
4) You will be prompted to press a key to continue... don't press it yet.



5) Power up the R-Series Wideband Computer.

Provide the R-500 with 12VDC (O2 sensor removed from harness). An AC adapter is available for purchase from PLX Devices if you wish to plug the R-500 into an AC power outlet. You may choose to build your own AC converter from a 12VDC 0.5A+ transformer. On the R-500 side red is power (+), while brown/white is ground (-).

Hold the controller and card firmly during the reflash process:



Once you provide power to the controller and the display on the R-500 lights up, **IMMEDIATELY** push a button on your keyboard to start the reflash process. The reflash process is more likely to fail if the PLX Splash screen shows up before you start the reflash process on the PC side.

```

C:\WINDOWS\system32\cmd.exe
PLXOpenPort U1.00
Copyright 2005 PLX Devices Inc.

Address 0x378 (IOPM Offset 0x6F) has been granted access.
Executing PLXConfig R500_U1.1.rfl with a ProcessID of 3324
PLXOpenPort Device Driver has set IOPM for ProcessID 3324.
Press any key to continue . . .

PLX Configuration Utility v1.00
PLX Devices Inc. Copyright 2005

Input file = R500_U1.1.rfl
Programming device. Please wait...

```

Do not turn off the power to your PC or R-Series computer during this operation. Wait for the message "SUCCESS! - Your device has been successfully programmed."

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C:\WINDOWS\system32\cmd.exe
PLXOpenPort U1.00
Copyright 2005 PLX Devices Inc.

Address 0x378 (IOPM Offset 0x6F) has been granted access.
Executing PLXConfig R500_U1.1.rfl with a ProcessID of 2260
PLXOpenPort Device Driver has set IOPM for ProcessID 2260.
Press any key to continue . . .

PLX Configuration Utility v1.00
PLX Devices Inc. Copyright 2005

Input file = R500_U1.1.rfl
Programming device. Please wait...

SUCCESS! - Your Device has been successfully programmed.
Execution Time = 108.515 seconds

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6) If an error message shows up, repeat steps 1-6 until you have successfully reflashed your unit

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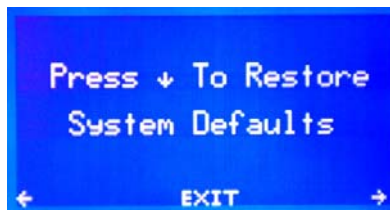
C:\WINDOWS\system32\cmd.exe
PLXOpenPort v1.00
Copyright 2005 PLX Devices Inc.
Address 0x378 (IOPM Offset 0x6F) has been granted access.
Executing PLXConfig R500_U1.1.rfl with a ProcessID of 3324
PLXOpenPort Device Driver has set IOPM for ProcessID 3324.
Press any key to continue . . .
PLX Configuration Utility v1.00
PLX Devices Inc. Copyright 2005
Input file = R500_U1.1.rfl
Programming device. Please wait...
FAILED! - Check connections and try again.
Execution Time = 91.171 seconds

```

If you continue to have problems check the connections on the R-500 and reflash card. You may need to slightly adjust (gently) the angle that the R-500 controller makes contact with the reflash card to get a good connection. Do not violently jar the connector on the card or bend it excessively.

7) Power down the R-500 controller and power it back up and then verify the new firmware version number on the splash screen.

8) Restore the R-500 to system defaults.



You are now ready to start using your R-500.

Troubleshooting:

If you are having difficulty reflashing your R-500. Check the following.

- 1) Make sure the porttalk.sys file is located in your windows\system32\drivers directory. If not, copy the file to that location.
- 2) Hold the reflash card firmly with the R-500 to ensure a good connection is being made.
- 3) Disconnect the oxygen sensor harness from the R-500

Using a USB Port:

You may purchase a USB to parallel port converter for your PC from a computer store. This is a device which "creates" a printer port from your USB port. Be sure to setup this device to port LPT1 and follow the procedures above.