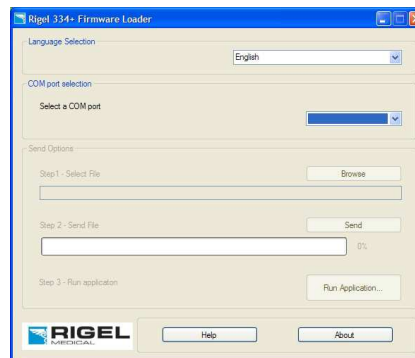


Uni-Pulse Firmware Upgrading

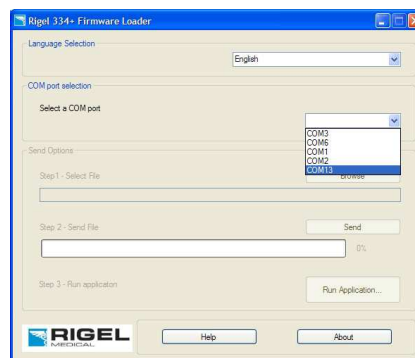
This document is to aid in upgrading the firmware of Rigel's Uni-Pulse using the UI Firmware Loader program to enable the user to have the most up to date features without the need to return the device

Programming Procedure

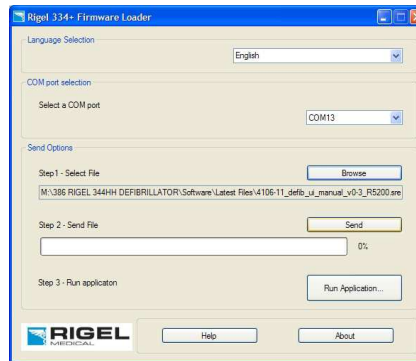
- 1) Using a USB cable connect the Rigel Uni-Pulse to a PC via the type B connector in the endplate of the Uni-Pulse.
- 2) Press the green ON power key and B at the same time to power the UI board. The UI board will automatically power up in boot loader mode.
- 3) The display of the Uni-Pulse indicates ****. Enter the password 1234. Press F5 Ok.
- 4) The Uni-Pulse screen displays Ready to Upgrade.
- 5) Open the Rigel Uni-Pulse firmware loader application on the PC



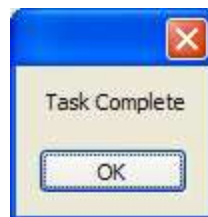
- 6) Select the appropriate COM port from the drop down menu.



- 7) Select the UI file:- (with .srec extension) from the appropriate location assuming the new firmware has been downloaded from our website <http://www.rigelmedical.com/rigel-downloads>



- 8) Use the mouse to select Send. The file is now programmed into the LPC2478 processor.
- 9) The send file status bar displays the progress of the programming and the Uni-Pulse screen displays Upgrading – do not switch off.
- 10) Once complete the software application displays



- 11) Press the red OFF power key.
- 12) Close the Rigel Uni-Pulse firmware loader application program.
- 13) Disconnect the USB cable assembly from the type B connector in the endplate of the Uni-Pulse.

The new firmware version can now be viewed in the ABOUT screen of the Uni-Pulse.

End