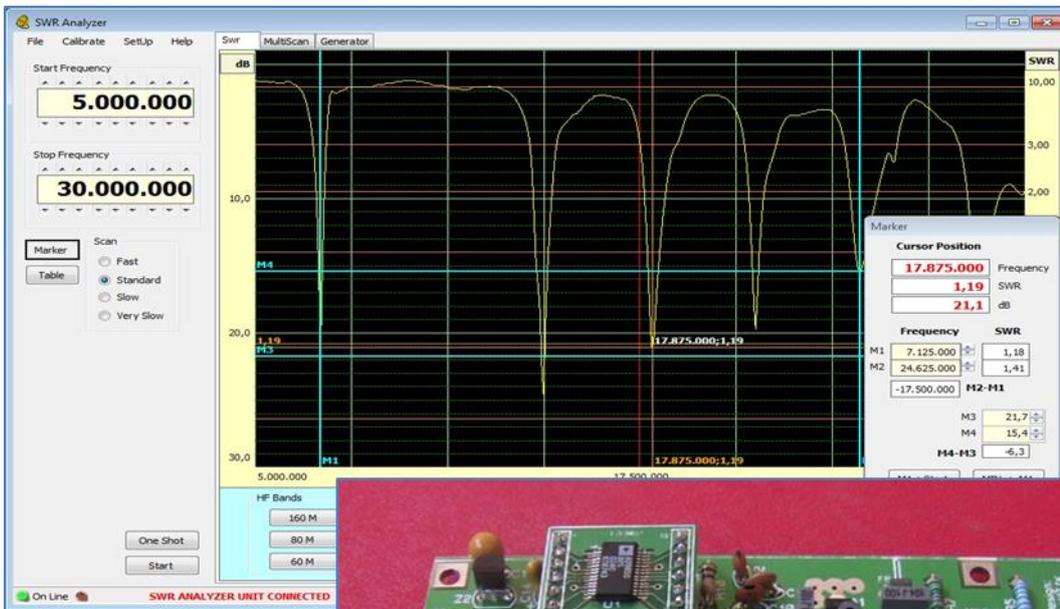




Fox Delta

Amateur Radio
Projects & Kits

SWRA Firmware UPDATE



UPDATING THE SWRA UNIT – USER GUIDE

The SWRA unit is based on Microchip's PIC18F2550/2553 28DIP chip, the component's kit provided by FoxDelta includes the microprocessor programmed and ready to work.

The firmware implements a special function (bootloader provided by Microchip) that allows to update the 18F2550 to a new firmware version via the USB port, **no external pic programmer is required**.

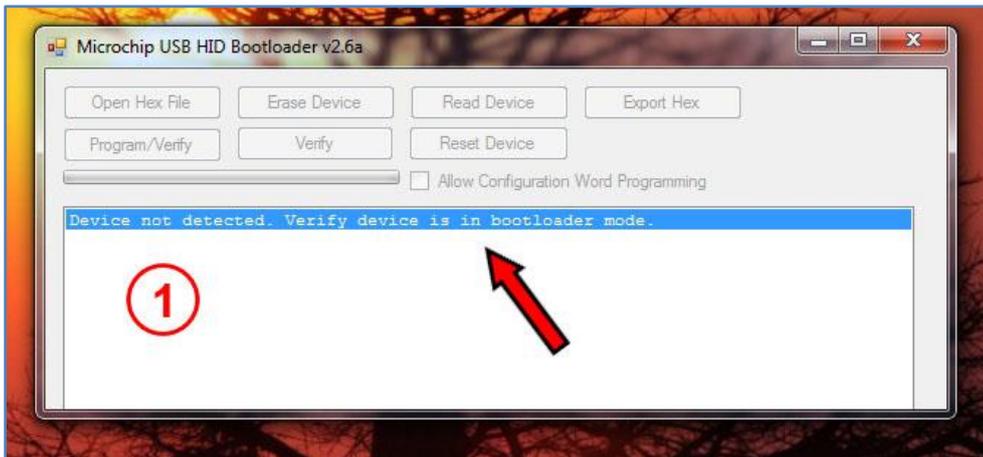
Please refer to : <http://www.microchip.com> for any detail about the hex code linked to the SWM3 firmware, any further information and copyright notice.

The program "HIDBootLoader.exe" (provided by Microchip) will be used, this is the Windows interface to access the bootloader function and flash the microprocessor memory.

To **program from scratch** the flash memory of the 18F2550 a **pic programmer is needed**, please burn the file: **Swr Analyzer vX.XX FULL.hex** included in the new releases.

This file already includes an embedded copy of the bootloader.

- Create a temporary folder and copy/unzip there the files:
 - HIDBootLoader.exe
 - **Swr Analyzer X.XXL_UPDATE.hex**
- Remove the USB cable SWRA – PC
- Navigate to the folder where the program “HIDBootLoader.exe” has been unzipped and launch it.

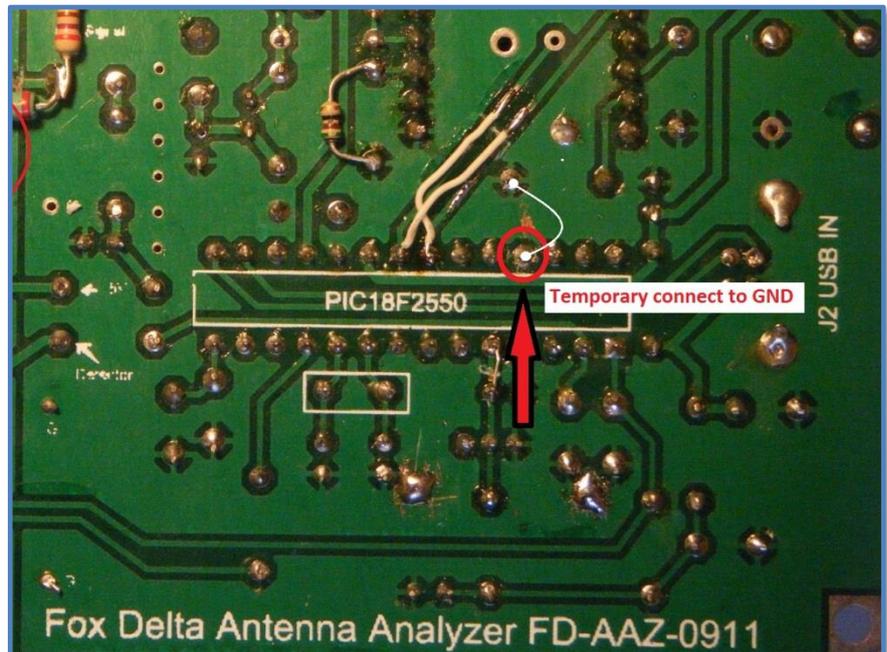


Notice:

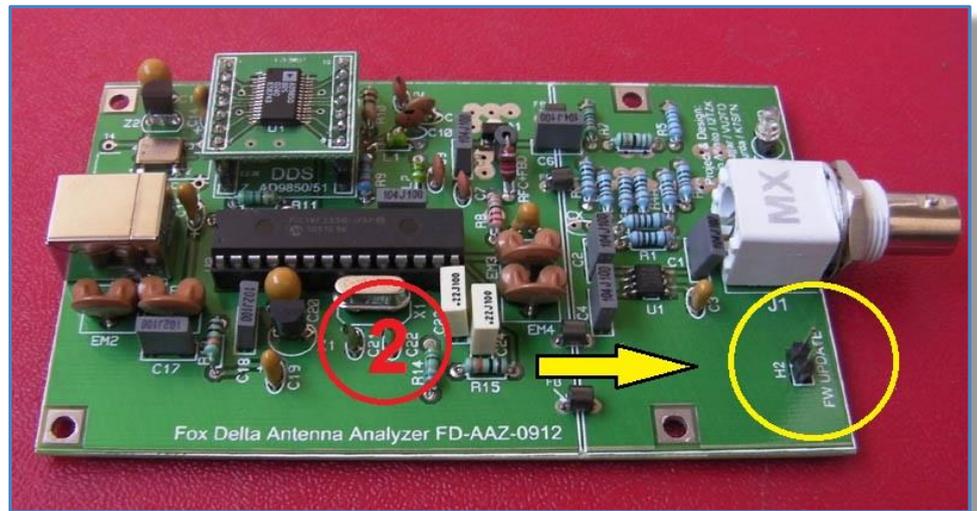
All buttons are disabled.

Message: “Device not detected.....” is presented.

- Bootloader is activated by temporary grounding the pin 25 of 18F2550 during the power on or the reset



- SWRA labeled **AAZ0912** and more recent units have a jumper that allows to quickly ground the pin 25 and launch the bootloader.

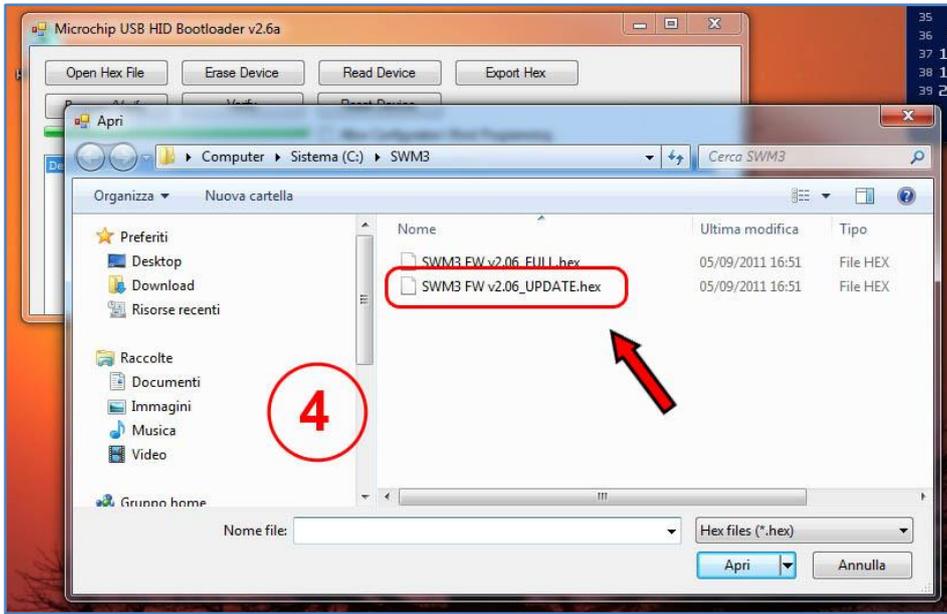


- Locate the header “**FW UPDATE**”, left side of the BNC connector
- Insert a jumper cap or short cut the header
- Connect the USB cable SWRA-Pc



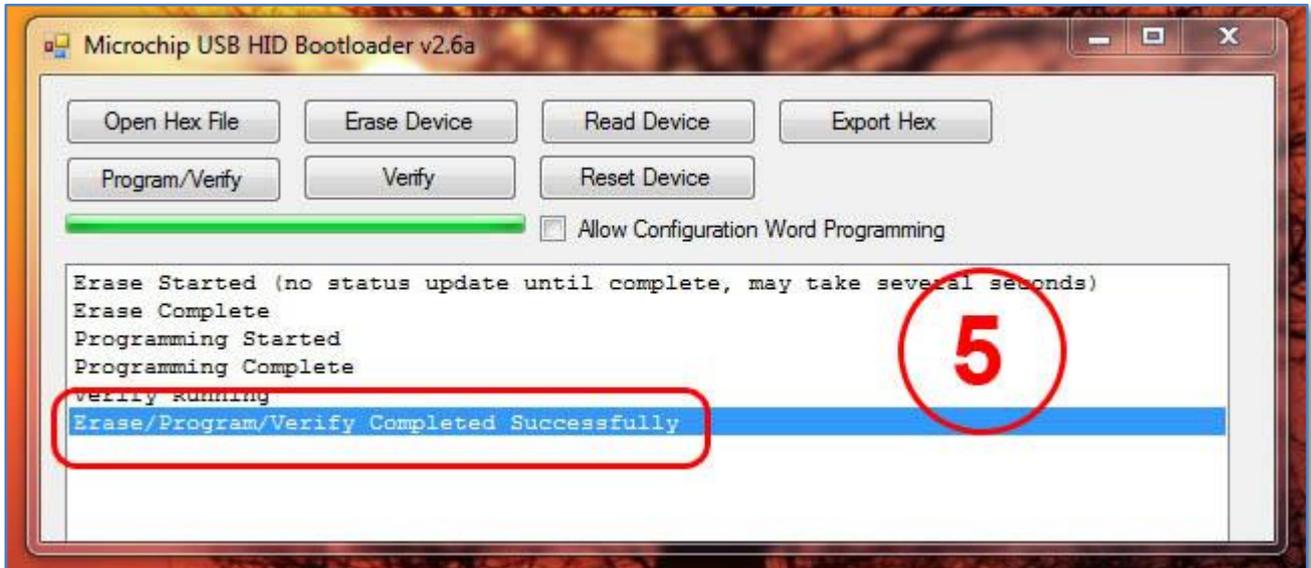
After a while, the green line starts, the SWRA is recognized : “Device attached” and buttons are enabled.

- Click the button “**Open Hex File**”, navigate to the folder where the new firmware hex file has been unzipped and select it.



Be aware of the UPDATE file selection.

Click the button “**Program and Verify**”, **do not remove the USB cable or power off the SWRA unit during this step, WAIT for the message:** “Erase/Program/Verify Completed Successfully”



- Close the pc program
- Remove the USB cable SWRA – PC
- **Remove the ground connection from pin 25 or remove the jumper cap/short cut from the “FW UPDATE” header.**

- Reconnect the cable, launch SWRAnalyzer.exe and verify that firmware has been updated (menu Help / About)

