TEC2 CCM Programming Instructions

Using H-JTAG Software and H-JTAG Download Probe

Table of Contents

Section 1: TEC2 CCM Programming Instructions

1.1 Using H-JTAG Software and H-JTAG Download Probe

Figure 1 Bare Board Setup

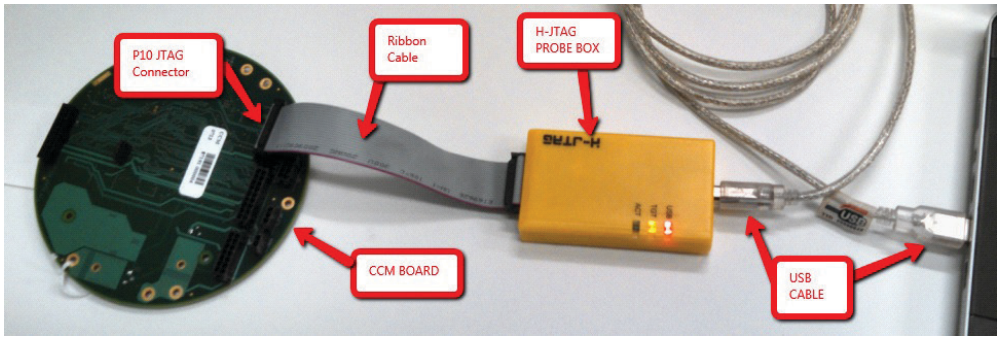
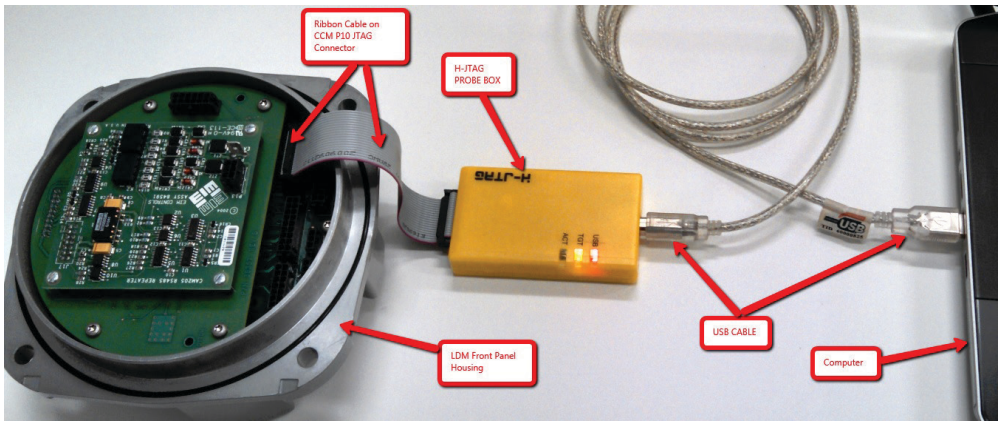


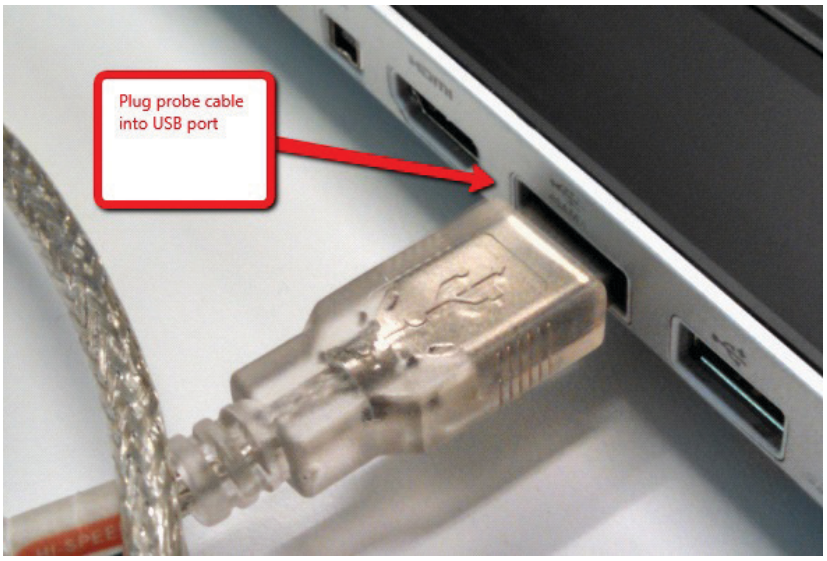
Figure 2 CCM in LDM Housing Setup



NOTE:
Hjtag Probe has been modified. Software is available at **http://www.hjtag.com/en/index.asp**.

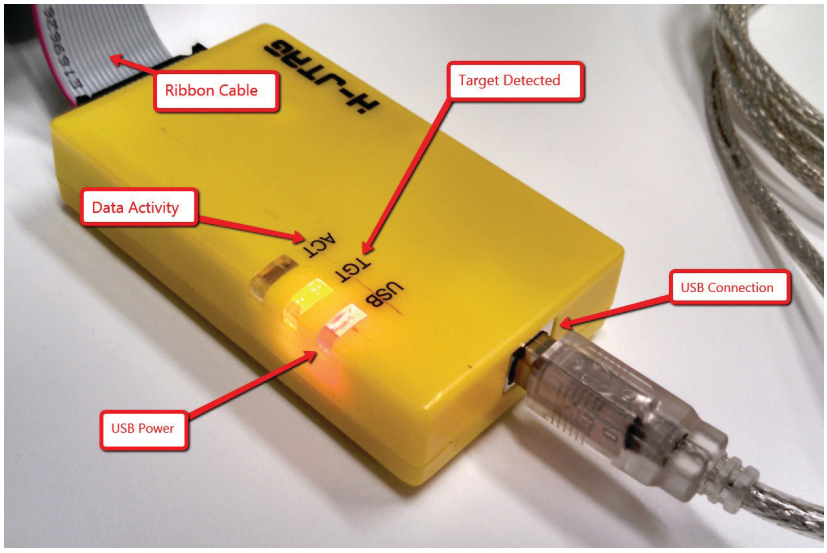
1. Connect the H-JTAG probe box and USB cable to the computer.

Figure 3 USB Cable Connected to Computer



2. Connect the H-JTAG probe box to the USB cable.

Figure 4 USB LED should light when USB Cable is connected to PC and Probe. The TGT LED should light when the Ribbon cable is connected between Board and H-JTAG Probe. ACT LED should light when data is being transferred.



3. Connect the ribbon cable to the P10 JTAG connector on the CCM board.

Figure 5 CCM Installed in LDM Setup

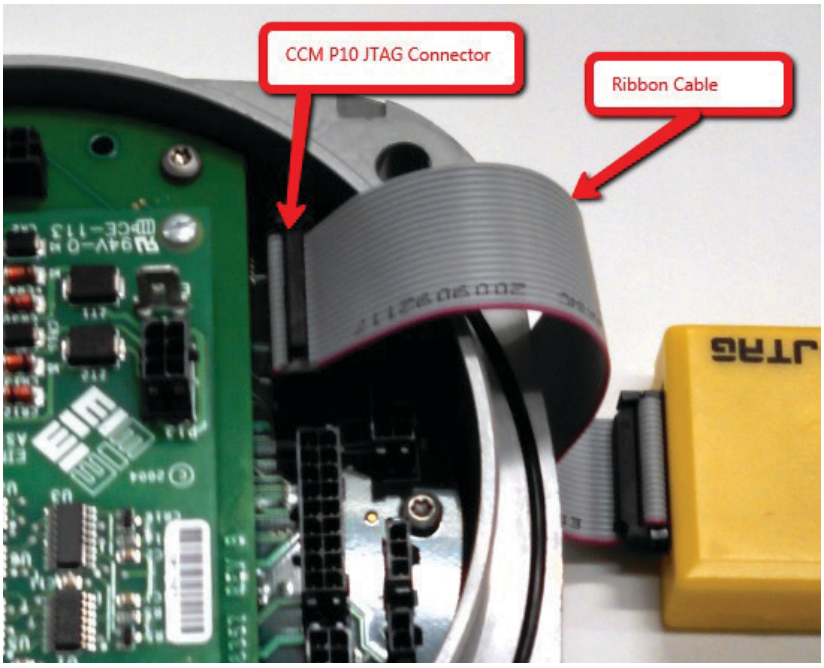
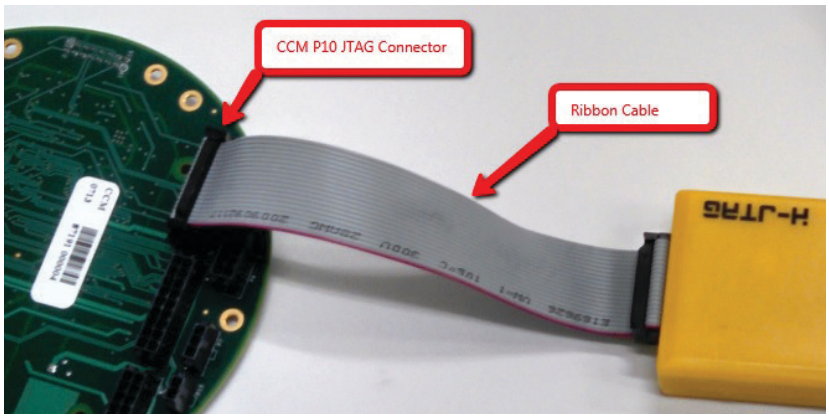
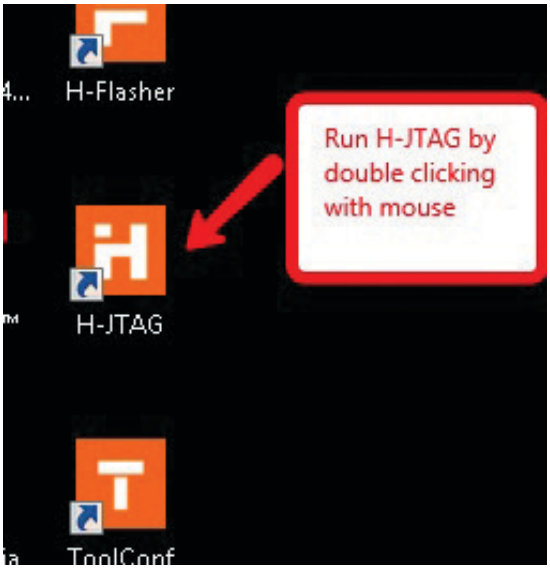


Figure 6 Ribbon Cable on CCM Bare Board Setup – JTAG Ribbon on CCM P10 Connector



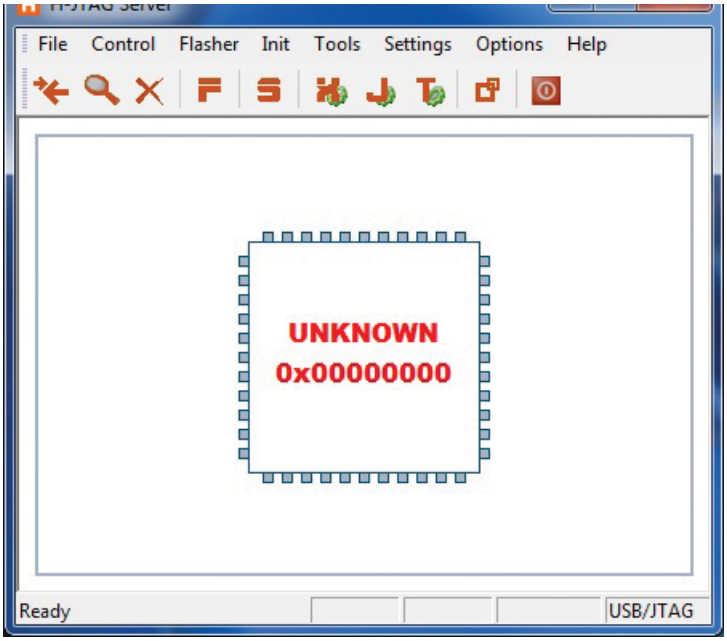
4. On computer, run the H-JTAG software by doubling clicking the H-JTAG Icon.

Figure 7 Windows Desktop H-JTAG Icon



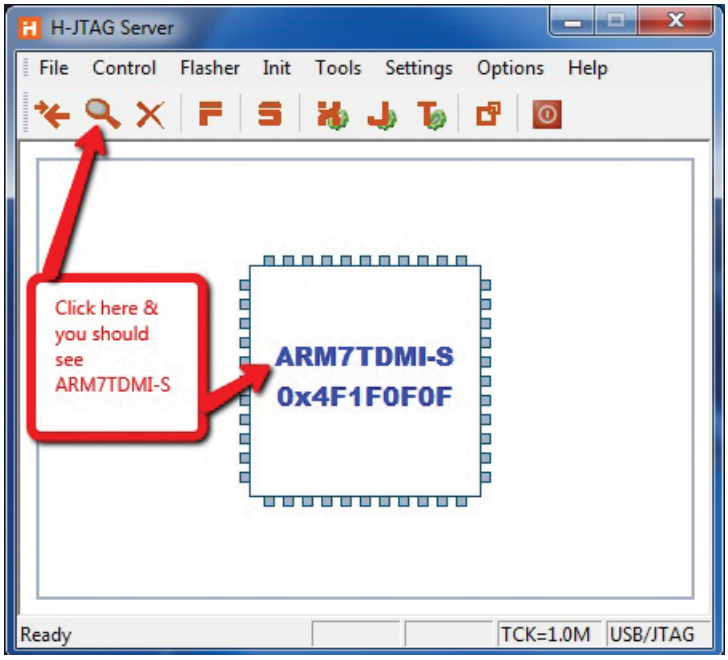
5. H-JTAG Server should start running.

Figure 8



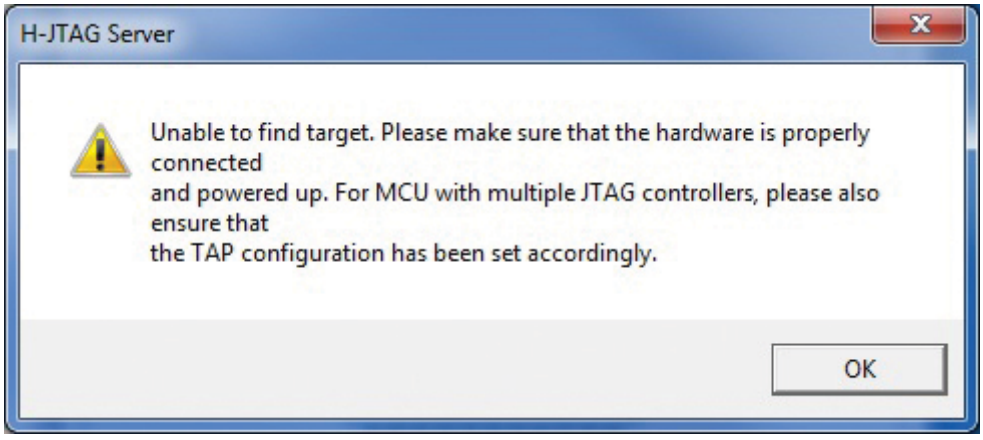
6. Click on the magnifying glass icon.

Figure 9 Correct Setup – Board Detected



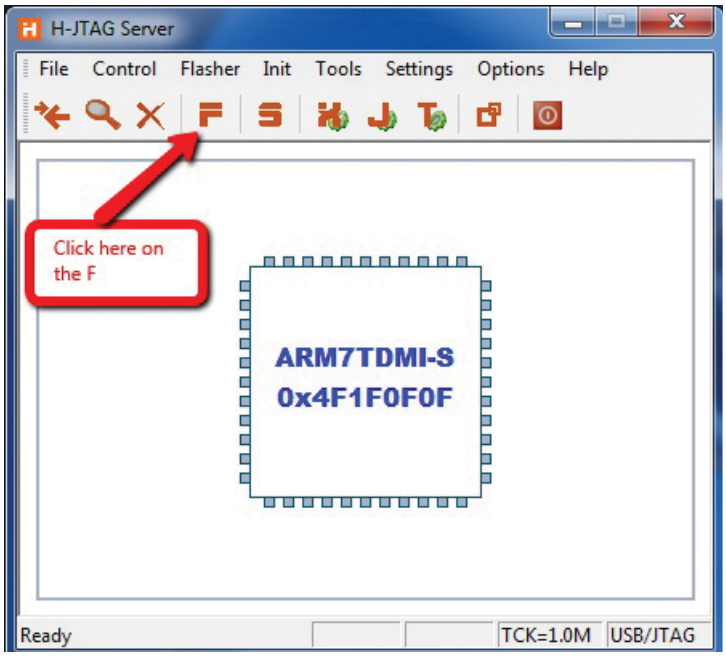
7. If you do not see the ARM7TDMI-S, ensure that the TGT LED and USB LED are both lit on the H-JTAG Probe. See Figure 4 and check connections. See Appendix to supply power from probe, otherwise external power must be supplied.

Figure 10 Incorrect Setup – Board NOT Detected



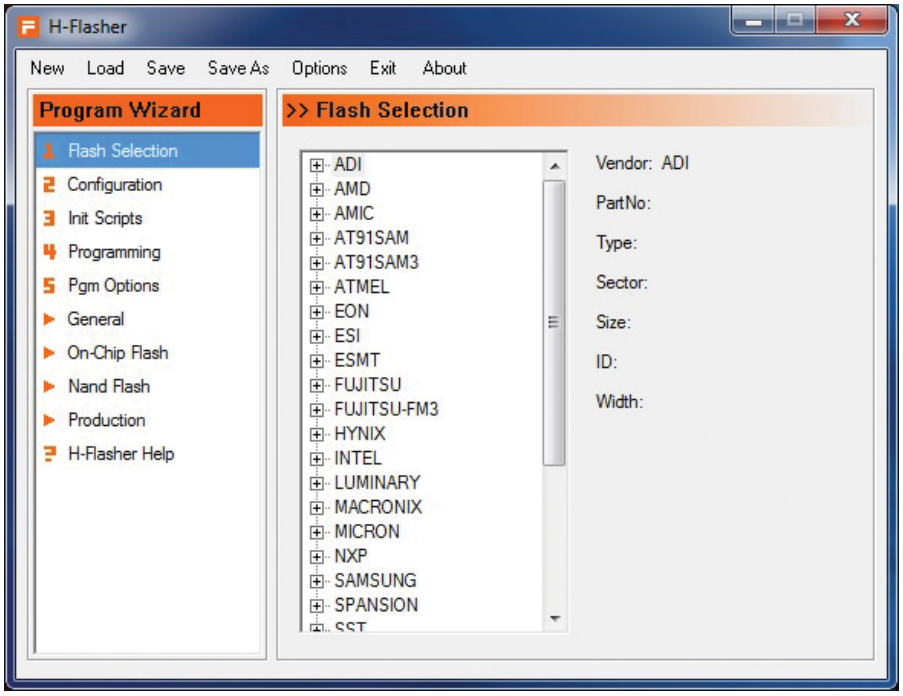
8. Click on the F.

Figure 11



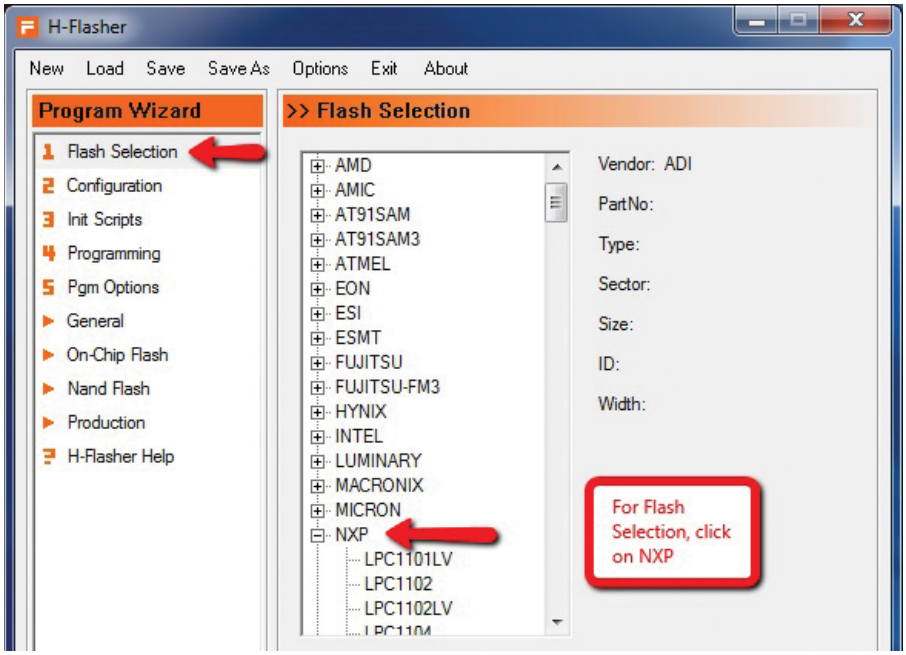
9. H-Flasher window will come up.

Figure 12



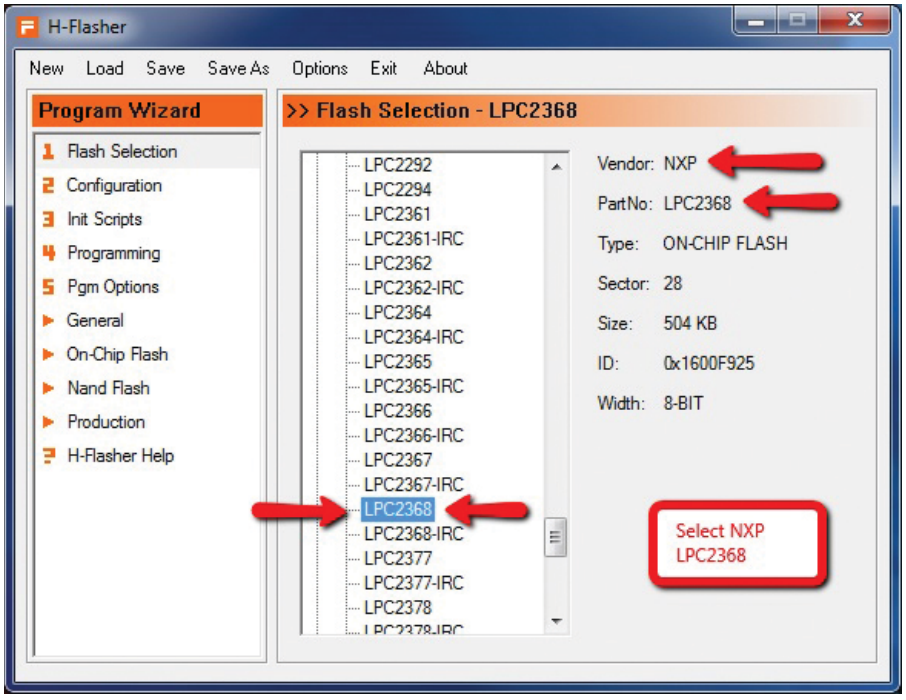
10. For Step 1 Flash Selection, pick NXP.

Figure 13



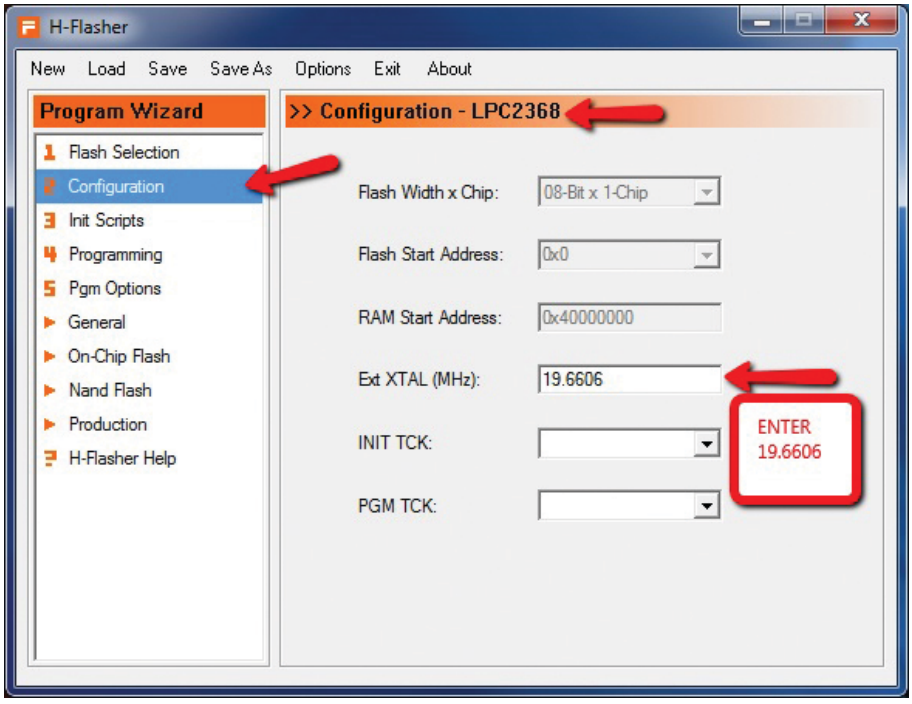
11. Pick NXP LPC2368.

Figure 14



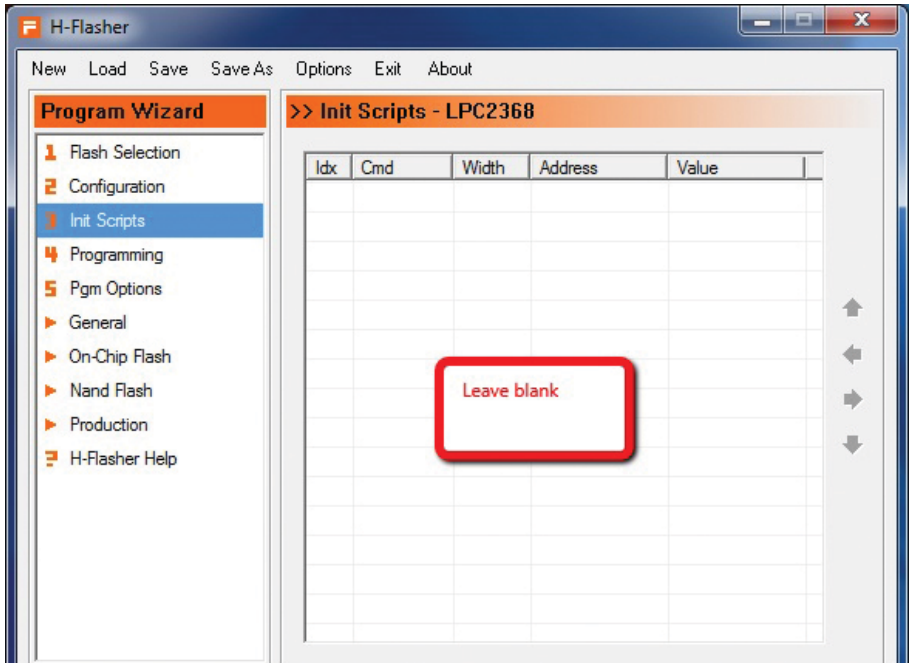
12. Click on Step 2 Configuration, enter 19.6606.

Figure 15



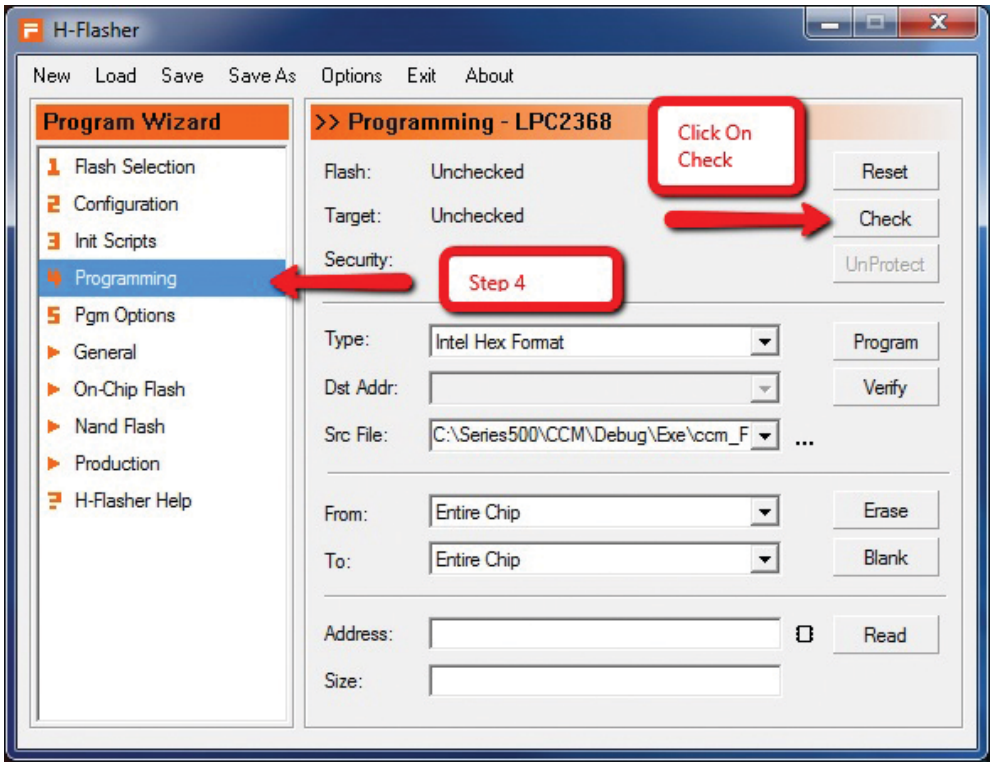
13. Click On Step 3, this screen should be blank. Delete anything entered here.

Figure 16



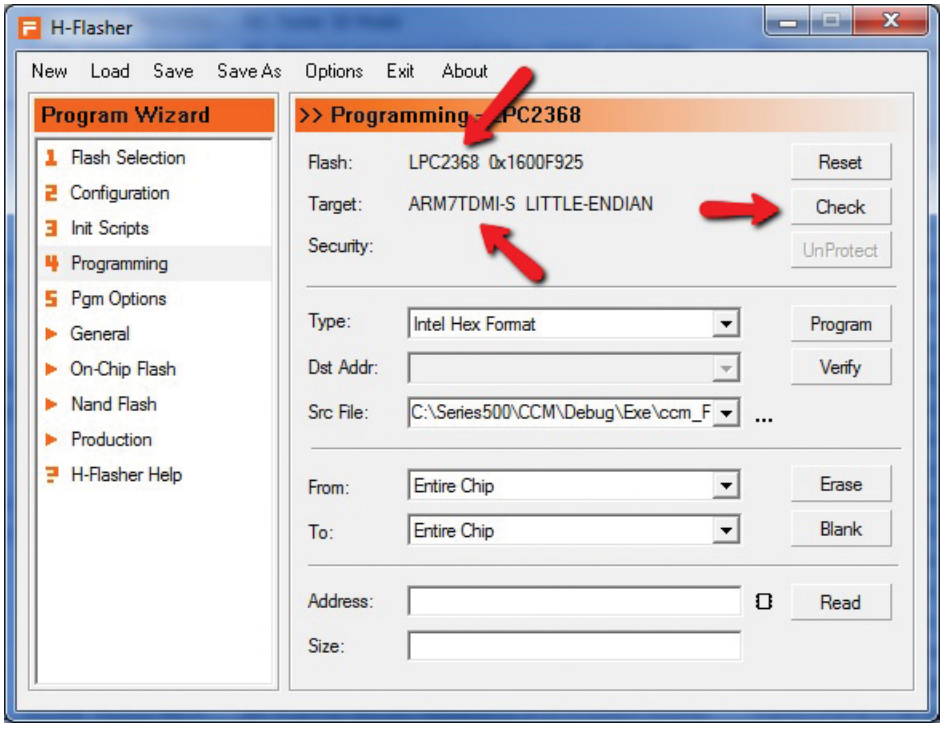
14. Click On Step 4. Then click on Check button.

Figure 17



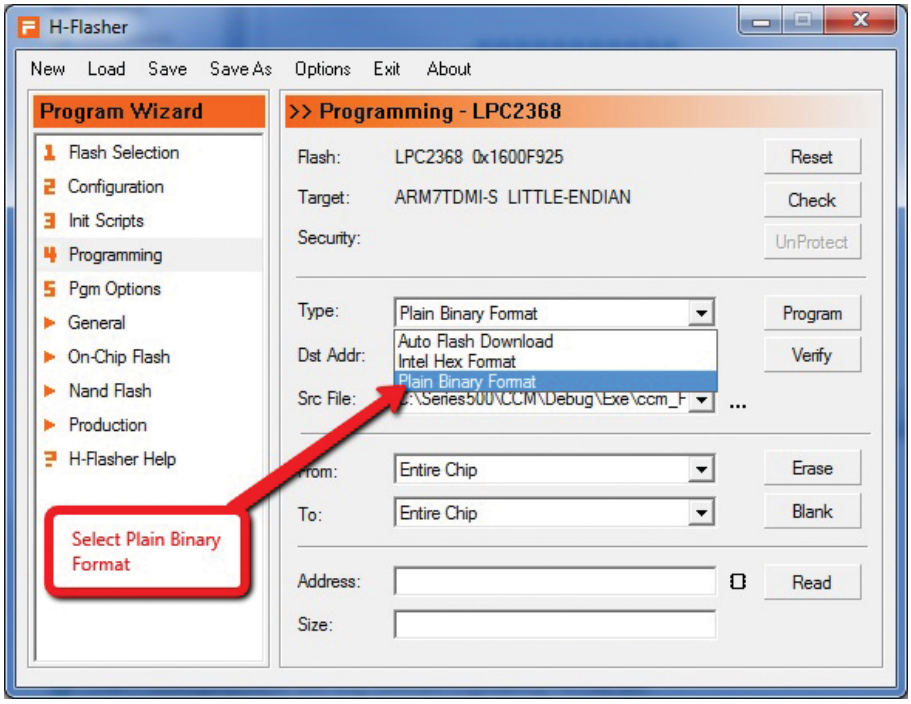
15. You should see LPC2368 and ARM7TDMI-S for flash and target. If you do not see this information, it means that the probe cannot see the target board and all connections should be checked. See Figure 4 above. The H-JTAG probe supplies the power to the device being programmed. See the Appendix for instructions on how to supply power from the probe. If the probe does not supply the power to the board, the board must be powered externally for the download operation to work.

Figure 18



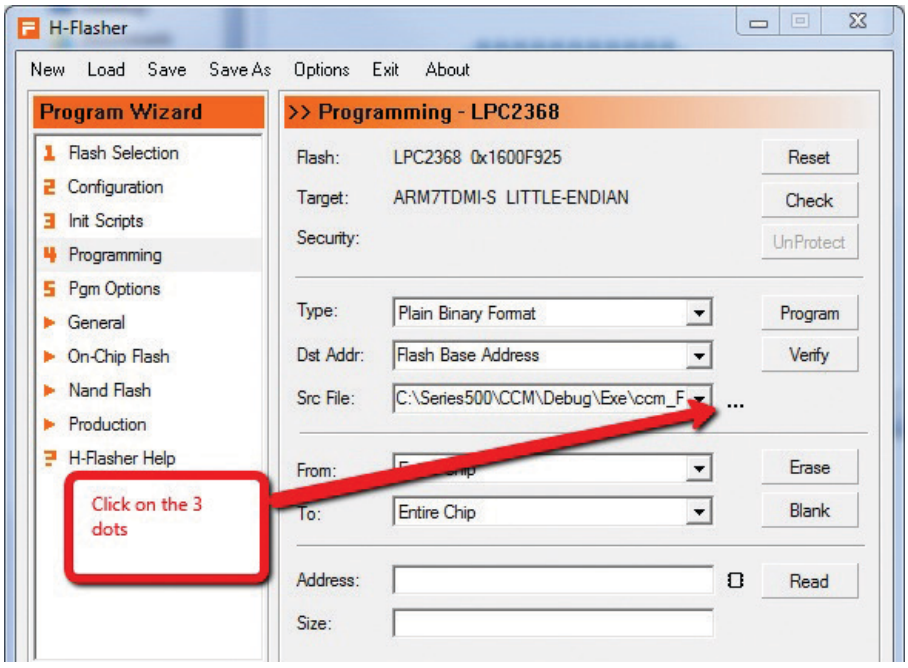
16. Click on small arrow for “Type:”. Then select Plain Binary Format in drop down list.

Figure 19



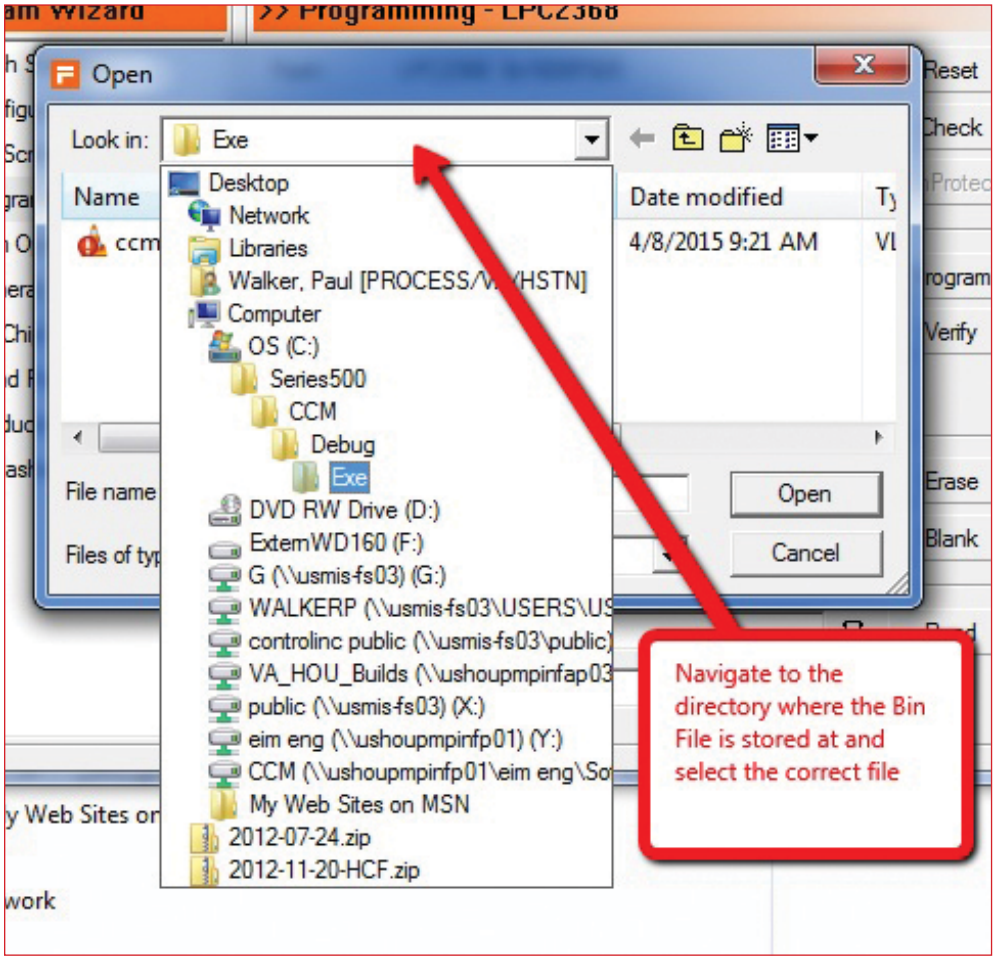
17. Click on the three small dots.

Figure 20



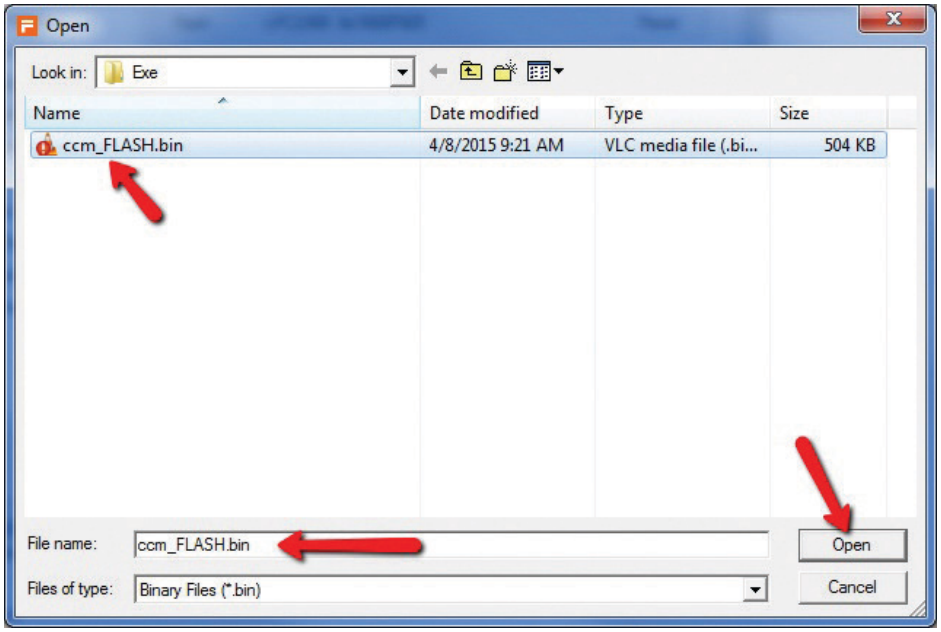
18. A new window will come up. Go to the directory and select which file to download to the board.

Figure 21 Find the directory the download file is located at.



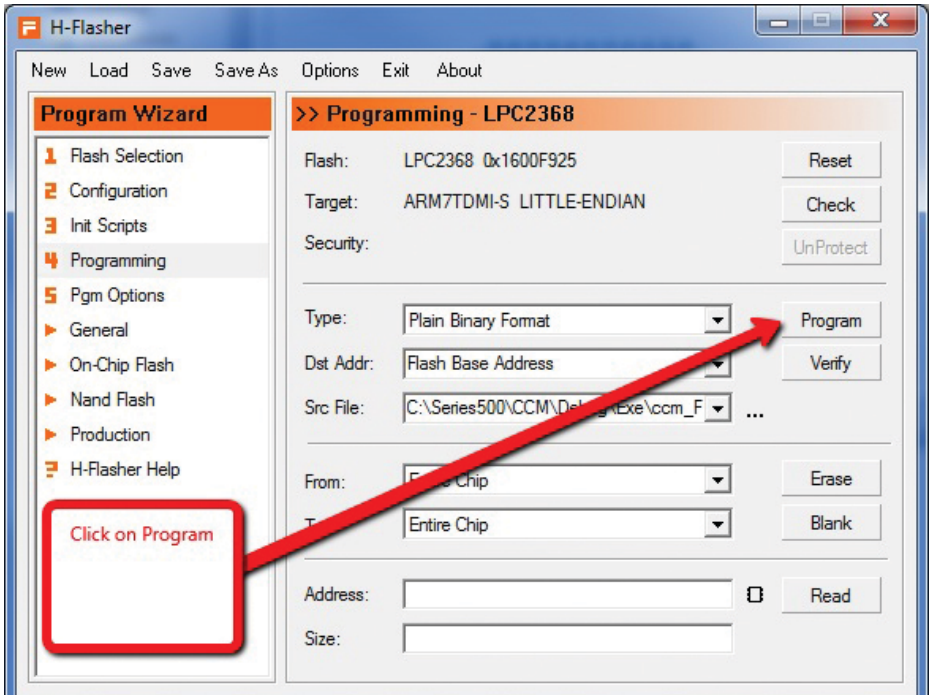
19. Select the file to download.

Figure 22 Click on the file and then click on the Open button. You should use the BIN type file.



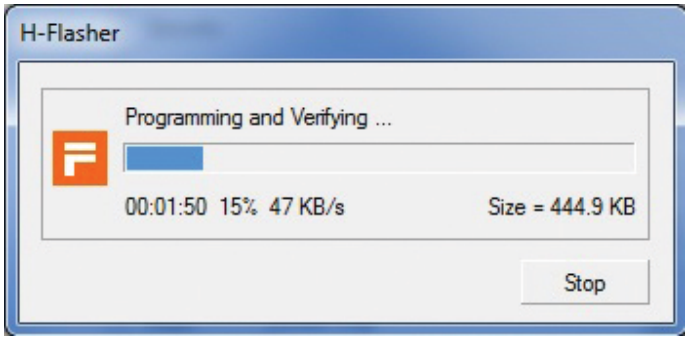
20. Click on Program button.

Figure 23 Hit Program Button



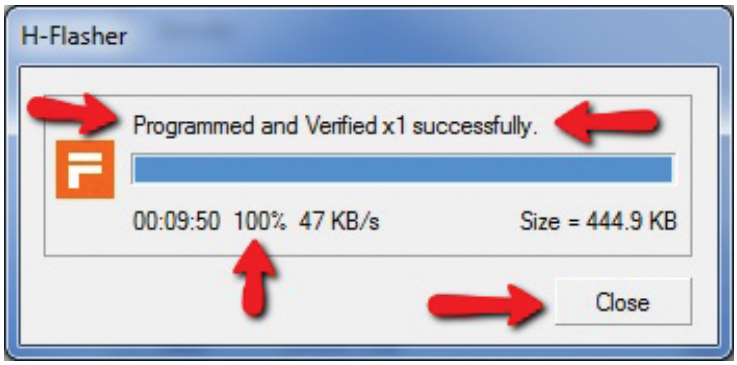
21. A small window will pop up and give you down load status.

Figure 24



22. Read the screen and verify that it Programmed and Verified Successfully, then Click on the Close Button.

Figure 25



23. Remove the Ribbon cable from the board being programmed. (See Figure 1 and Figure 2).

24. Remove the ribbon cable from the P10 of the CCM board.

25. Congratulations, the board is now programmed and is ready for use.

Programming More Boards:

To program more board(s), keep everything the same as above, and then repeat these four instructions bellow:

26. Connect the JTAG ribbon cable to the new board to be programmed (See Figures 5 and 6).

27. Click on the Check button. (See Figure 18).

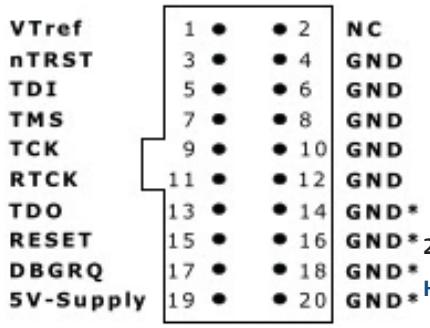
28. Click on the Program button. (See Figure 23).

29. Read H-Flasher status window. (See Figure 25).

Appendix

NOTE:
The H-JTAG probe used in these directions was modified from the original manufacturers design to provide 5V on JTAG pin 19 to power the target device. This is how to modify the H-JTAG probe. The JTAG specification allows for supplying power to the target on pin 19.

Figure 26 JTAG Pin Out



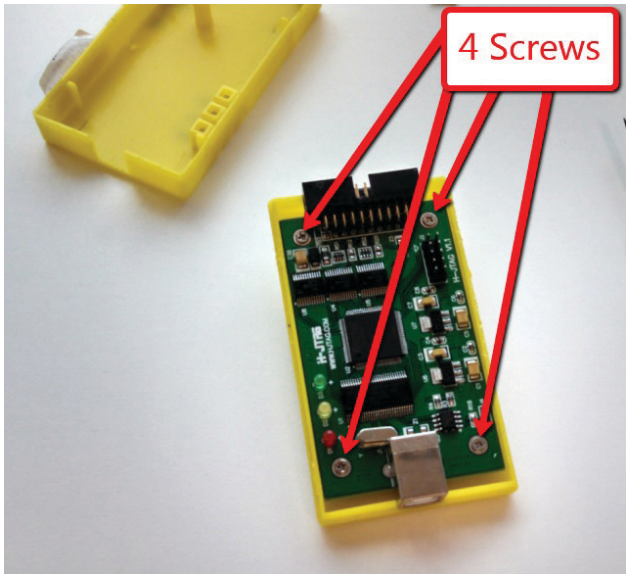
20 PIN JTAG INTERFACE DESCRIPTION:
HTTPS://WWW.SEGGER.COM/INTERFACE-DESCRIPTION.HTML

1. Remove hidden screw under label.

Figure 27

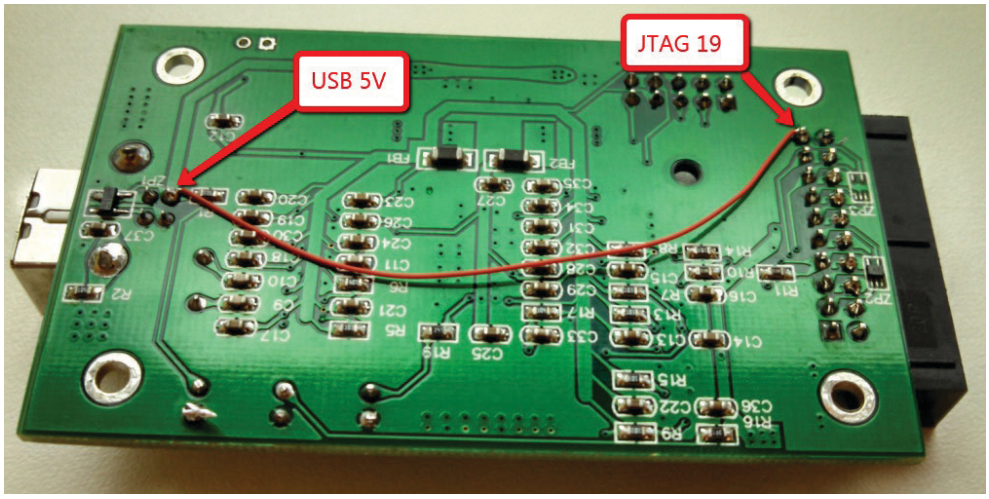
2. Remove four Screws on board.

Figure 28



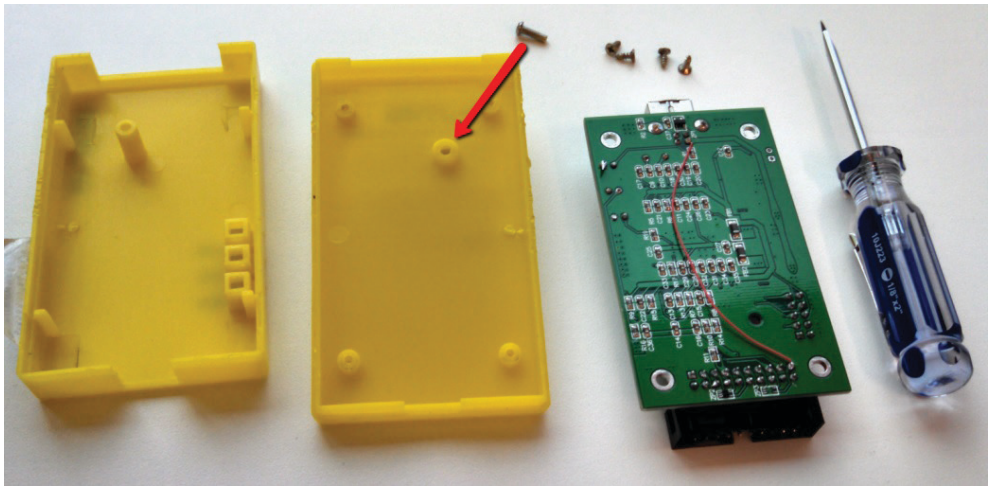
3. Remove board and connect 5V from USB connector to JTAG Pin 19.

Figure 29



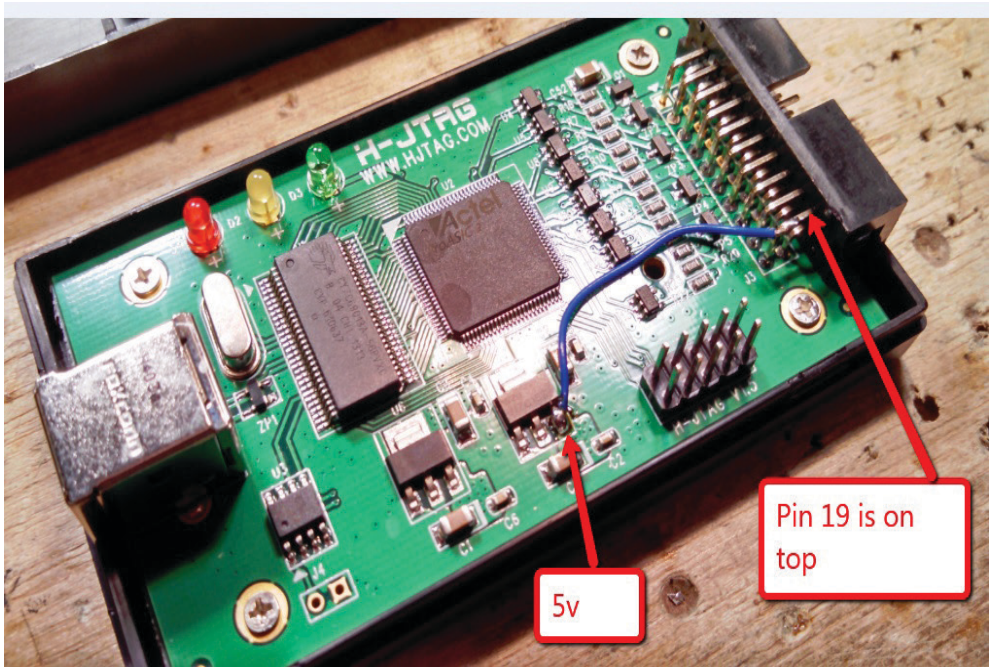
4. Exploded view of disassembled probe for reference. Big screw holds case together. Reverse prior directions to reassemble the probe.

Figure 30



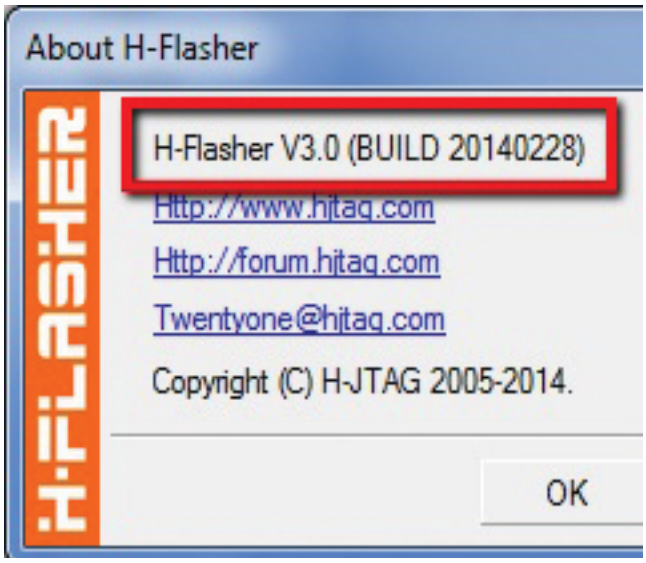
5. New Black Style Boxes Modification.

Figure 31



These instructions were written for H-Flasher V3.0:

Figure 32



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