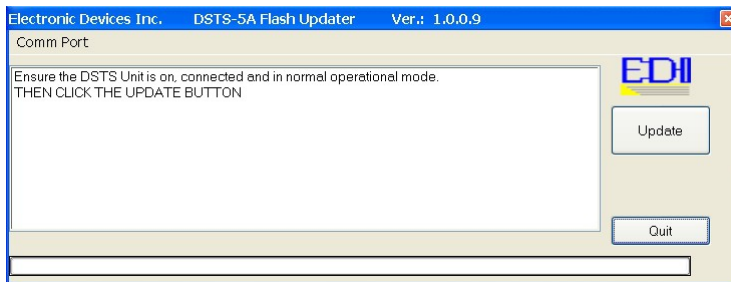**ELECTRONIC DEVICES INC.**

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DSTS-5A Flash Loader User's Manual

Notice of Liability

Every effort has been made to ensure this document and the Flash.exe memory loader software is accurate and contains no errors. However, Electronic Devices Inc. or its employees shall not be liable for any loss or damage suffered as a result of the use of the software referred to as Flash.exe.

Trademarks

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Overview

The software, **Flash.exe** has been developed to aid the user of the Electronic Devices depth sounder test set products DSTS-5A/1, DSTS-5A/2 and DSTS-5A/2c to load software updates. The software will communicate with the test set and determine the proper software revision to load. Software updates may be obtained from http://www.dsts.com/ or by contacting Electronic Devices via email or by telephone (800) 421-2968 (within the USA).

System Requirements

Operating System Requirements

The software is designed to work with the current 32 bit and 64 bit versions of the Windows operating systems. The following operating systems are compatible with the Flash.exe software: Window XP, Windows Vista, Windows 7 (32 bit and 64 bit versions).

Hardware Requirements

Monitor, Keyboard and Mouse
Hard Drive Space 5 MB
Ram Memory 2MB or greater for program data storage
Processor – Pentium class or greater
RS232 Comport, at least one communication port numbered between 1 and 32.
Both internal and USB communications ports are supported.

Software Installation

The software is a standalone executable and does not require any support .dll files. As a result installation of the software is relatively simple.
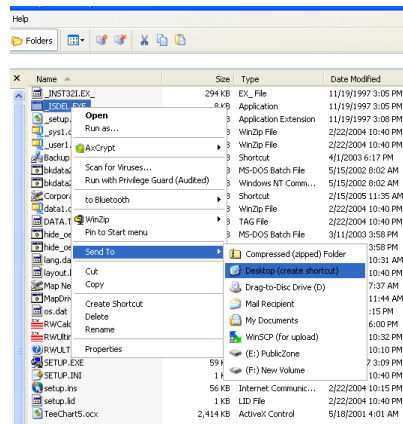
Open Windows explorer and select the local hard drive that you wish to install the software on. Typically this will be the C drive or c:\.

Create a folder by right clicking on the drives folder display and selecting "New" and then select "Folder"

Once the folder is created you will be prompted for a name. You may name the folder any name you wish. As a suggestion use "DSTS_5A"

Copy the downloaded DSTS-5AVxxxx.hex files and the program "FLASH.EXE" into the newly created folder.

If you wish to place a shortcut on your desktop, right click on the file "FLASH.EXE" and select "Send To" and then select "Desktop" (Create Shortcut)

Flash Software Operation
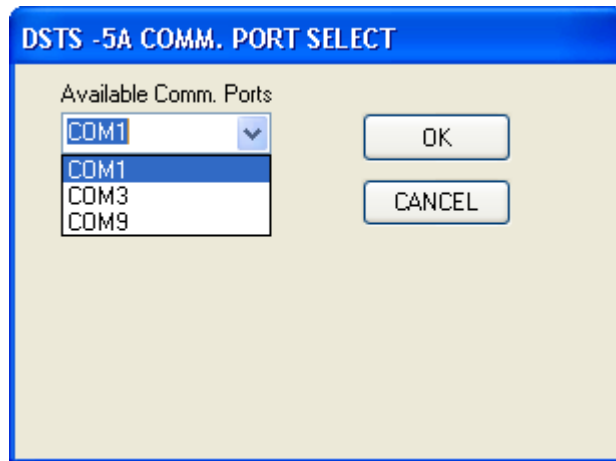
Hardware Connections

Using a straight thru DB-9 male to DB-9 female cable connect the DSTS test set to the desired comport.
Connect the appropriate power supply the front panel power connector of the DSTS test set.
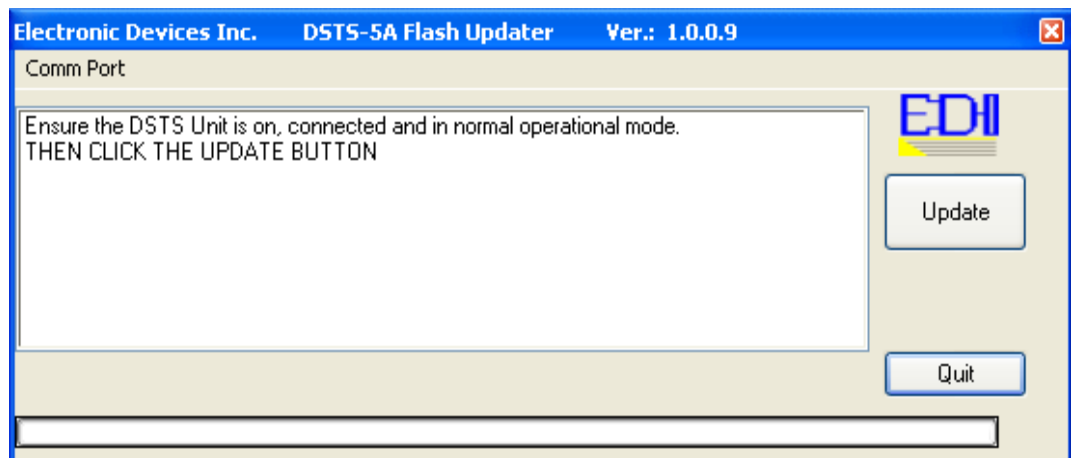
Launching the Flash Program

With the DSTS test set powered on and its normal operational state "LED 3 Blinking". Double click the desktop shortcut for the FLASH program or go to the folder that was created to hold the FLASH program and Intel hex files and double click on the program FLASH.EXE.

The following screen should appear:

Utilizing the drop down menu select the communications port connected to the test set. Then click "OK" to continue. If you select "CANCEL" the software will terminate its execution.

After clicking on the "OK" button the following screen should appear:

Make sure the DSTS test set is in normal operational mode. Verify LED 3 is flashing and then click the "Update" button and follow the directions on the screen.

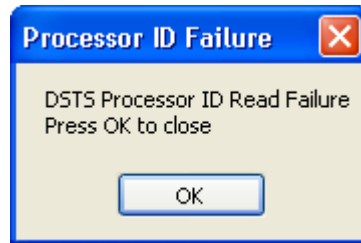**From this point to completion the software will complete the update and close unless an error occurs.**

Error Messages

DSTS Processor ID Read Failure

This error message is caused by not being able to communicate with the test set.

Possible causes:

a. Wrong communication port was selected.
b. Defective or wrong RS-232 DB9-DB9 cable.
c. Bad Test Set
d. Bad Communications Port
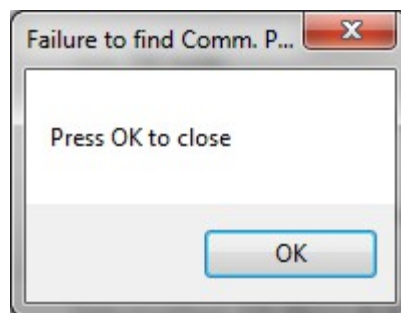e. Timing error, reset and try again.

Failure to find Comm. Port

This error message is caused by not being able to communicate with the test set.

Possible causes:

a. USB Communications port defective or not detected. Disconnect the communications ports USB connection and then reconnect. Close the FASH.EXE program and restart.

b. The communications port number is greater than 32 reduce the port number.

Data File requires a larger memory model.

This error message is caused by trying to download an Intel Hex file that requires more memory than the selected processor contains.

Possible causes:

a. The processor ID read is invalid try resetting the DSTS test set and restarting the FLASH.EXE program.
b. You tried loading an invalid Intel hex file.
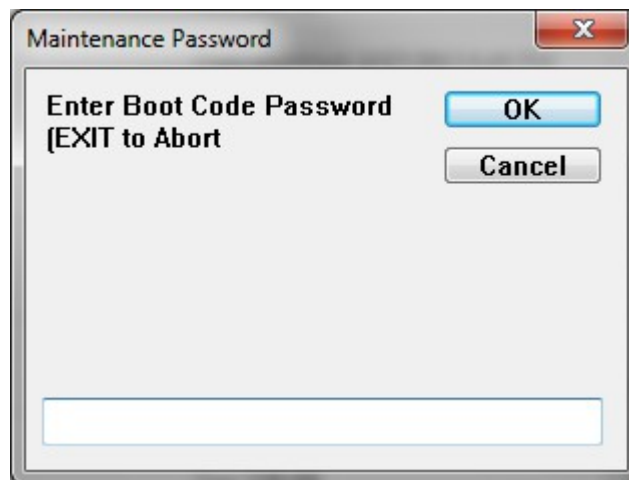c. The DSTS test set is defective, contact customer service.

Enter Boot Code Password (EXIT to Abort

Possible causes:

a. If your unit has LED 1 and LED 2 "ON" the unit is in a loader state and not in operational mode. Press the reset button on the front panel to reset and try to enter the operational mode.

    If you are unable to enter normal operational mode, press the update button and allow the software to try and determine the test set type.
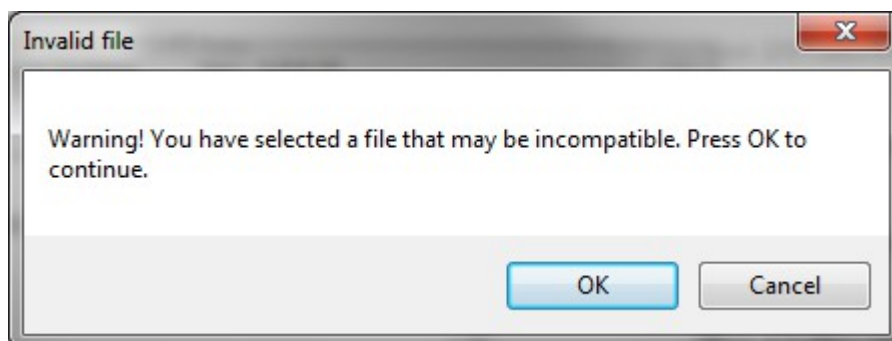
b. The test set was detected to be in boot loader mode. If this issue is not resolvable by rebooting the unit into normal operation please contact customer service for the appropriate password for your unit.

Warning! You have selected a file that may be incompatible

Possible causes:
a. The software was not able to properly detect the type of test set attached and a maintenance password was entered for possibly the wrong type of unit.

Software Updates

Software updates for the flash program and the test sets may be obtained from http://www.dsts.com/ or by contacting Electronic Devices via email or by telephone (800) 421-2968 (within the USA).

1.1.1   Product Update Files

1.1.2	DSTS-5A/1	DSTS5A1_vxxx.hex
1.1.3	DSTS-5A/2	DSTS5A2_vxxx.hex
1.1.4	DSTS-5A /2C	DSTS5AC_vxxx.hex
1.1.5	Flash Loader	Flash.exe