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 DIGITAL CINEMA	TITLE XD10P Firmware Update Procedure	NUMBER TN-F259	REV C	PAGE 1 of 4
DEPARTMENT Engineering	CREATED BY: M.B. Smith	EFFECTIVE DATE July 21, 2008	APPROVED BY: L. Brown	

This technical notice describes the procedure for downloading XD10P firmware updates and for installing new firmware onto the XD10P, using a laptop computer. To verify the current version see Release note (RN-F258) which can be viewed and downloaded from the DTS Digital Cinema website.

Procedure for downloading firmware updates from the DTS website

1. The most current firmware updates can be found at: <http://www.dtsdcinema.com/Support/Products/XD10P>
2. Click on XD10P V1.5 Firmware Update, then select "Save" when prompted to download the file to your laptop computer. Be sure to save the file to the same folder where the XD10P Setup.exe was installed on your laptop (the default location is \program files\dts\XD10P). If you have not yet loaded the DTS XD10P setup software or have a version earlier than V1.00.26 download and install it now, as it will be needed to complete the update. The XD10P setup software can also be downloaded from the same website location under XD10P setup software.
3. The XD10P firmware file is a self-extracting zip file. Double click on the file name to extract the individual files. You will be prompted to choose a folder for the extracted files or place them into the default destination (\program files\dts\XD10P). The unzip files will be: XD10P Control <version>.hex, XD10P EQ<version>.eq, XD10P Matrix<version>.mtx, XD10P NR<version>.nr

Preparing for the Update


4. Connect serial cable from laptop computer to serial port RS-232 on rear of XD10P. Most computers may require a USB adapter to serial adapter.
5. Open the setup software program, then click on the Connect Icon in the setup screen
6. It is very important that you save settings prior to beginning the update, during the update all settings are cleared, if you save the settings now you will be able to restore these settings in a later step. To save settings, select save from the file menu or simply click on the file icon



A save box will appear. Create a file name (typically it will be the Theater name and screen number), then click save. The file has now been created and has been saved on your computer. Select the disconnect Icon. When prompted to save file to XD10P select "do not save"



7. Remove front cover on the XD10P (two small Phillips screws). Set Memory Module switch to off position, see figure 2.

	<p align="center">TITLE</p> <h1 align="center">XD10P Firmware Update Procedure</h1>	<p>NUMBER TN-F259</p>	<p>REV C</p>	<p>PAGE 2 of 4</p>
<p>DEPARTMENT Engineering</p>	<p>CREATED BY: M.B. Smith</p>	<p>EFFECTIVE DATE July 21, 2008</p>	<p>APPROVED BY: L. Brown</p>	

Installing firmware

- Open the **Help** menu in the XD10 setup software, Select **Unlock Diagnostics**, and enter password **jdw852gs**.

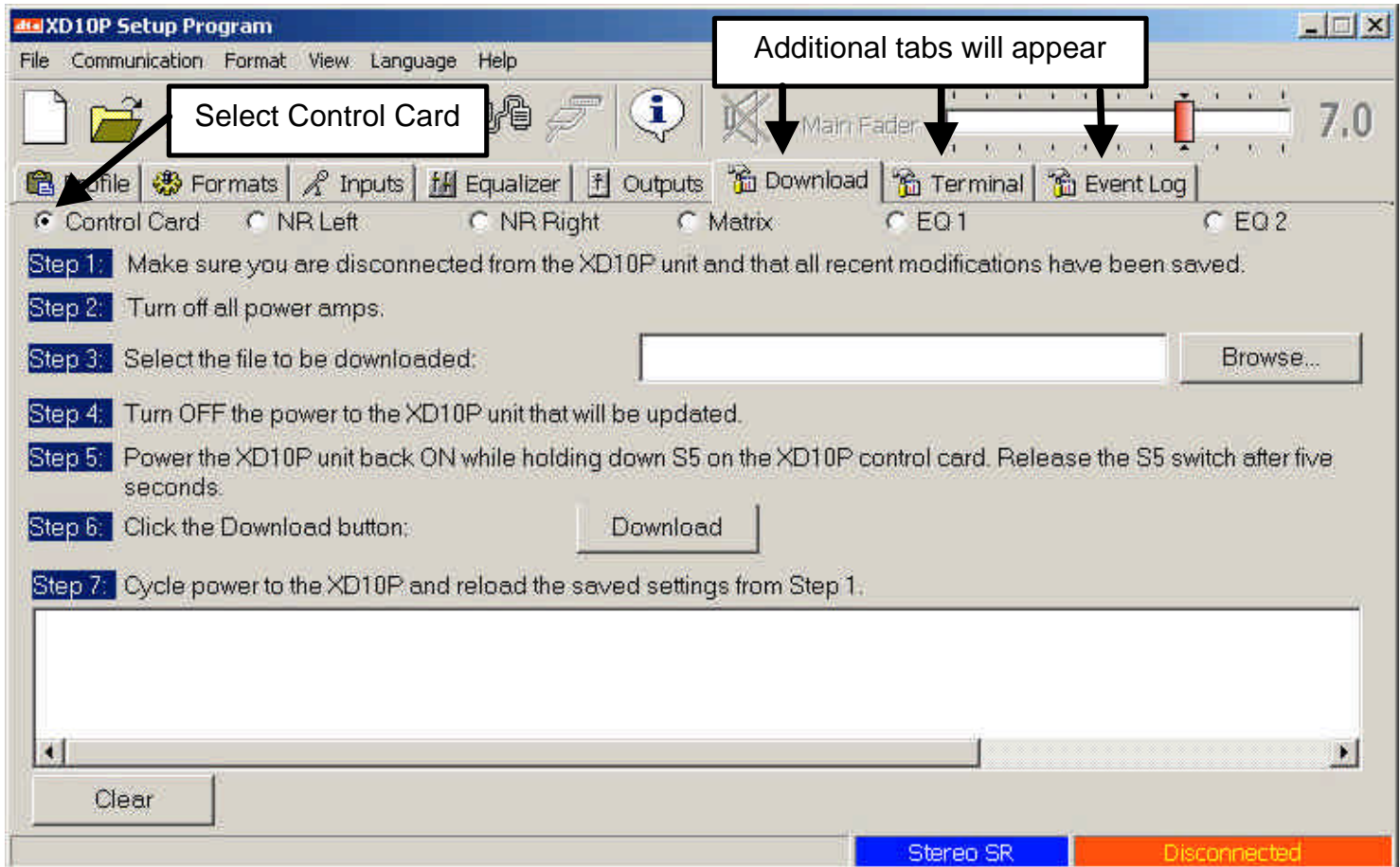



Figure 1 Download tab

- Note there are several selections at the top of the screen: Control Card, NR left, NR Right, Matrix, EQ 1 and EQ 2. This latest update includes all these files; however you only have to load those ones that are not current on your XD10P. To find out your current files loaded on the XD10P, while connected select profile tab, then look under Component information. You must be connected to the XD10P or this information will be blank.

 DIGITAL CINEMA	<p style="text-align: center;">TITLE</p> <h1 style="text-align: center;">XD10P Firmware Update Procedure</h1>		NUMBER TN-F259	REV C	PAGE 3 of 4
DEPARTMENT Engineering	CREATED BY: M.B. Smith	EFFECTIVE DATE July 21, 2008	APPROVED BY: L. Brown		

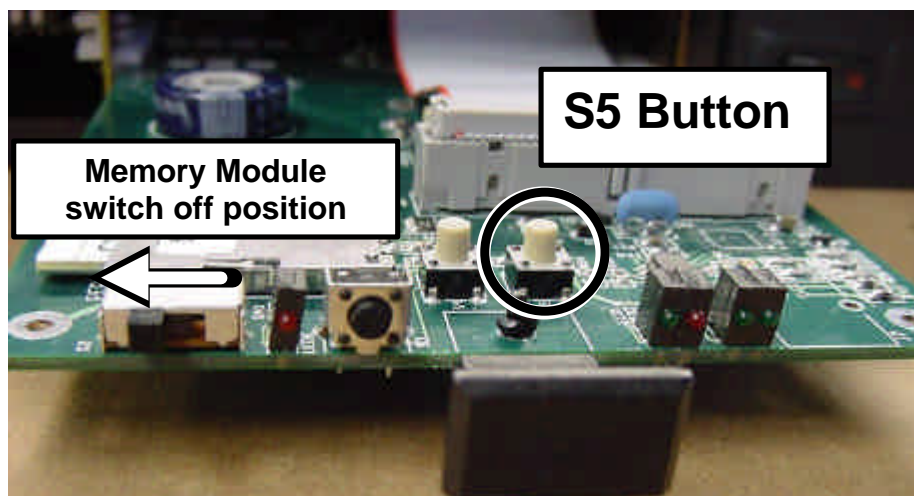



Figure 2: S5 Button location

10. When downloading the Control Card PIC file, the XD10P must first be placed in the download mode. First, you must save the current XD10P system file, see “preparing for the update” in earlier section. Once the XD10P system file has been saved to your laptop, turn off the XD10P. Locate the S5 button on the Control Module (see figure 2). Hold this button down and turn on the XD10P (continue to hold this button down for minimum ten seconds). When you release this button the XD10P should be in the download mode, as indicated by the format buttons not being illuminated and the fader display being dark, this is normal. This mode is only necessary when downloading the Control Card files, to load all other files the XD10P should be left in normal operational mode.
11. Follow directions on the Setup screen (figure 1) steps 1 thru 7. In step 3 of (figure 1) the file available should match the file selected, example when Control Card is selected the file in browse should be XD10P_Control_<version>.hex file.
12. To download any of the other files, NR left and right, Matrix, EQ 1 and EQ 2, the XD10P should be left in normal mode; you do not have to place it in the download mode. Same as above follow the on screen steps for download in the setup software.

Reloading the XD10P settings


13. Choose Connect on setup software, select File, then Open, find the file you created earlier in step 6, choose “NO” when prompted to Save, then choose “YES” when prompted to overwrite the file. This will reload the previously saved XD10P settings. Under the profile tab re-enter the serial number of the XD10P. Choose disconnect, when the close box appears, select save to memory module, then choose “YES”.
14. Once saved and closed, connect once more to verify all settings have been restored, and the software listed in profile tab is current. This completes the install, if you have further questions please contact DTS customer service.

 DIGITAL CINEMA	<div>TITLE</div> <h1>XD10P Firmware Update Procedure</h1>	<div>NUMBER</div> TN-F259	<div>REV</div> C	<div>PAGE</div> 4 of 4
<div>DEPARTMENT</div> Engineering	<div>CREATED BY:</div> M.B. Smith	<div>EFFECTIVE DATE</div> July 21, 2008	<div>APPROVED BY:</div> L. Brown	

Error messages that may appear

Occasionally an error message may appear during the update process. Below are the error messages, their meaning and solutions.

Error Message	Meaning/Solution
A download error has occurred. Please verify that all cabling and settings are correct and try again.	If updating multiple XD10P's and you are moving from screen to screen without reloading the download file in the browse window, this message may appear. Reselect the new PIC firmware file by clicking on browse and selecting the file again. Start the download process again; the message should not reappear.
Failed to save DSP parameters due to an internal error. <u>or</u> Data verification has failed. Please upload and save your data file again.	Occasionally these messages may appear when selecting save settings to memory module when exiting program. If one of these errors occur, select ok, then select exit program again. If you selected save settings to memory module you will have to select this again, any settings you made will be saved.
Communication with the XD10P unit has been lost. If the unit was powered off without disconnecting your recent settings have been lost.	This message may have appeared during your firmware update if you forgot to disconnect from the XD10P in step 5. Because the XD10P was shut off without exiting the software program, no harm was done, select ok and continue steps. If this message appears during any other part of the download check power and serial connections.

 DIGITAL CINEMA	TITLE XD10P Firmware Update Procedure	NUMBER TN-F259	REV C	PAGE 5 of 4
DEPARTMENT Engineering	CREATED BY: M.B. Smith	EFFECTIVE DATE July 21, 2008	APPROVED BY: L. Brown	

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