

Tools Required:

- PC with either USB or Serial COM ports
- TI Downloader Program
- PhytoFlash firmware HEX file version 2.30
- Power Supply
- PhytoFlash Interface Cable, (P/N: 2500-150)
- PhytoFlash Instrument

Important Note: Do not supply power to the unit until all electrical connections are completed. (See Figure 1 for cable guide)

1. Install the free version of TI Downloader.
2. <http://www.turnerdesigns.com/Software/sbac018c.zip> **Note: installation may take 3-5 minutes**
3. Save the Turner Hex File Version 2.30 to a known folder on your C drive. The firmware can be found on the Turner Designs Software website (<http://www.turnerdesigns.com/t2/sw/main.html>).
4. Connect PhytoFlash Interface Cable (RS-232) serial end to the PC serial connection port. (A Serial to USB cable is required for USB COM connections)
5. Connect PhytoFlash Interface Cable to the PhytoFlash 12-pin connector.
6. Connect PhytoFlash Interface Cable Power Jack to Power Supply and apply power.

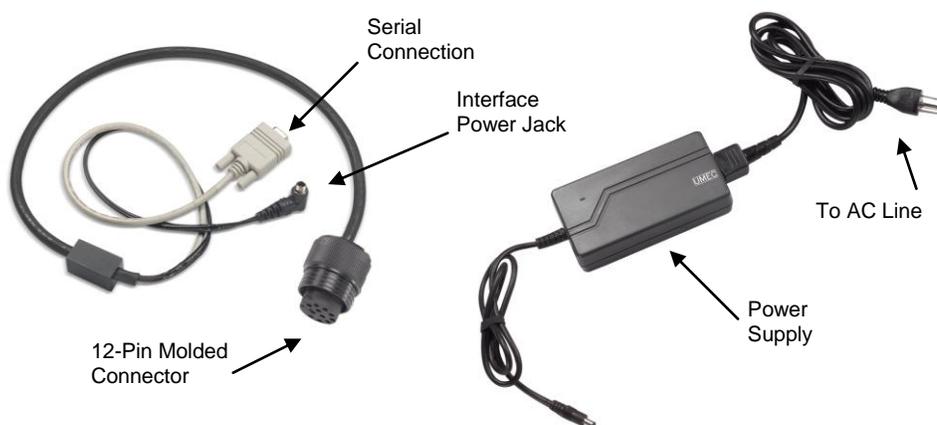


Figure 1

7. Double click **“TI downloader”** icon to open TI downloader program.
8. The **“Open file”** window will automatically be displayed (Figure 2).

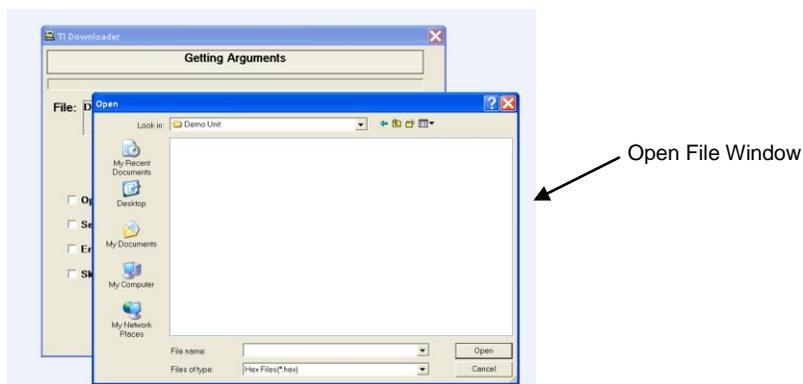


Figure 2

9. Find the **folder** which contains the correct “**HEX file**” for the specified firmware, then double click to choose the “**HEX file**” 
10. If a wrong file is chosen or a change needs to be made after choosing a file, click the “**Change File**” button located on the TI Downloader window (Figure 3) to change the HEX file.

TI Downloader Window →

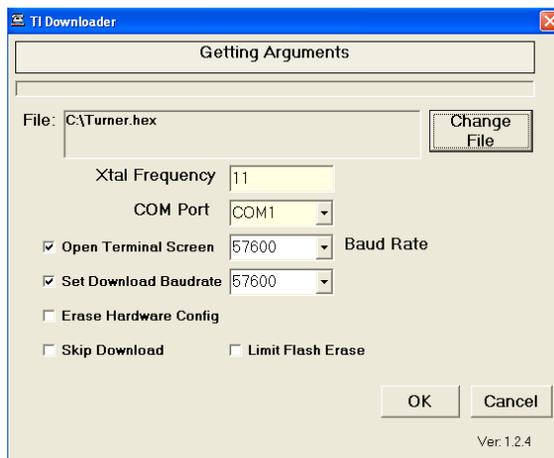


Figure 3

11. “**Xtal Frequency**” should be set at 11.
12. Select the “**COM port**” being used to connect to the PhytoFlash.
13. Click the “**Open Terminal Screen**” box and select a Baud Rate of **57600** from the pull down options.
14. Click the “**Set Download Baudrate**” and select a baud rate of **57600**.
15. Click “**OK**” to install firmware (*installation may take 3-5 minutes*).
16. Initializing will automatically occur and the home screen will appear (Figure 4). The home screen will specify the version installed.
17. Installation is now complete. Users may proceed with PhytoFlash operation.

PhytoFlash User Interface Home Screen →

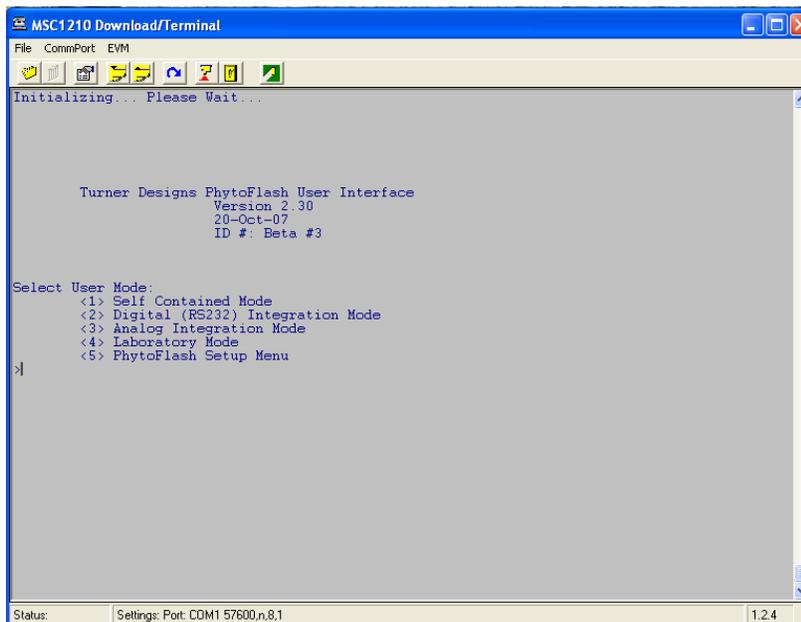


Figure 4

Connecting to PhytoFlash using TI Downloader after firmware installation:

- 1) Repeat **steps 1-13** from previous installation instructions.
- 2) Check the “**Skip Download**” box (Figure 3).
- 3) Click “**OK**” to connect to the PhytoFlash.

*If you are having difficulty uploading firmware to the PhytoFlash please contact our technical specialist at 877-316-8049 or support@turnerdesigns.com.