


EPSON PRODUCT SUPPORT BULLETIN

Date:	12/24/2009	Originator:	esc
PSB #:	PSB.2010.01.001	Authorization:	
Reference:	TI09-68e Rev. A and B	Total Pages:	8
Product(s):	AP-60 Projector Sound Solution		
Subject:	Firmware Update – Improves Sound Quality		

This bulletin was created to inform you about an updated firmware release for the AP-60 Projector Sound Solution unit to improve the performance described below.

Improvements:

- Improves the sound performance when feedback is present.

Serial Numbers Affected:

AP-60 Serial numbers with the countermeasure: **G91121915~G91121920 / G00120001~G00120480** (January, 2010 shipment)

Note: The following serial numbers were included in the January, 2010 shipment, and these units do not have the countermeasure: **G91121891 / G91121897 / G91121899~G91121914**

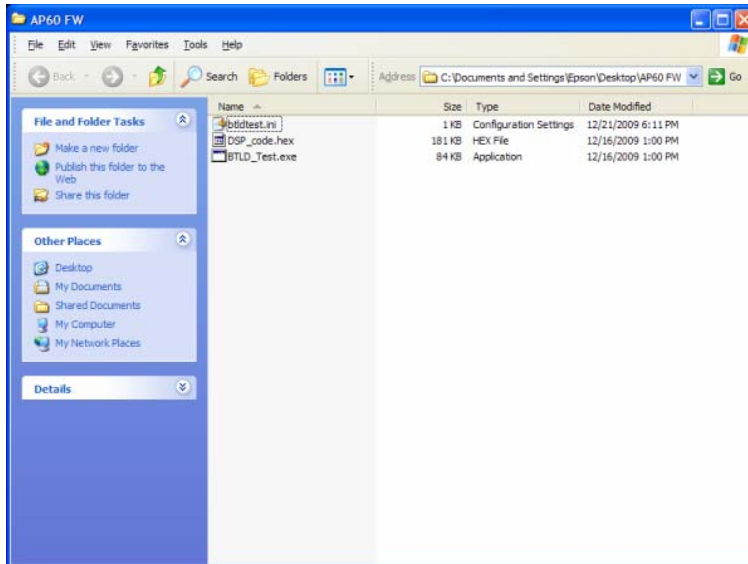
Required Equipment and Preparation:

Required:

- AP-60 unit to be updated
- PC computer running Windows 98SE / Me / 2000 / XP
- RS232 Null modem serial cable
- Firmware/Downloader files: BTLT_Test.exe, btldtest.ini, DSP_code.hex (included in epson13644.exe package)
- Download and extract epson13644.exe package. The files are extracted and copied to C:\EPSON\epson13644_ap60_downloader_firmware_13.

How to Establish Serial Communication between the AP-60 and the Computer:

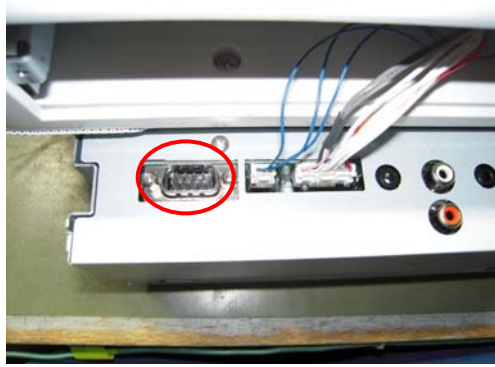
- a) Download epon13644.exe package which includes the following files:
1. BTLTLD_Test.exe
 2. btldtest.ini
 3. DSP_code.hex



- b) Remove two Phillip screws from the audio control board then slide out the audio control board to access the RS-232 connector.



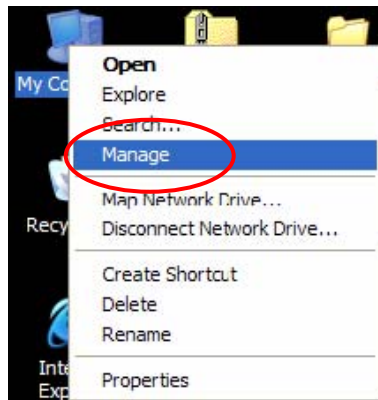
- c) Connect one end of the RS-232 cable to the backside of the RS-232 port and the other end of the cable to the PC. Then restart the PC.



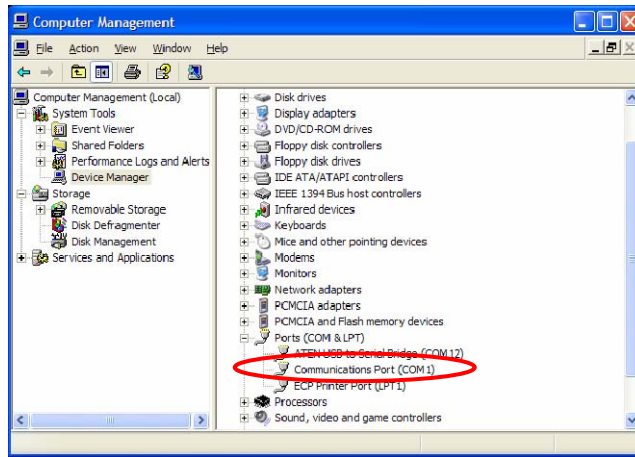
- 1) **Connect the power cable to the AP-60 unit (Power LED is solid orange) -- do not turn it on.** Verify the null modem cable is connected to the AP-60 unit RS-232c and computer RS-232c serial ports.

When the AP-60 is in Standby Mode, hold down the Power button (black button on the front left side of the audio control board) for at least 3 seconds or more until the Power light LED shows blinking green—release when the Power LED is blinking green.

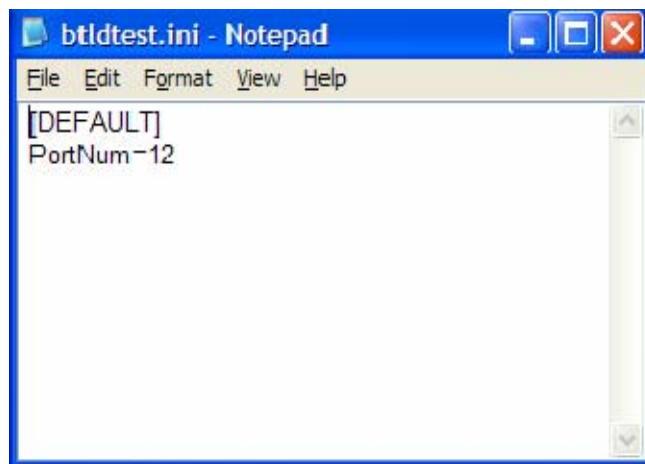
- a) If the Power LED does not show blinking green, set the projector to standby mode and hold down the power button again for 3 seconds or more.
- b) Right-click **My Computer** on the PC desktop screen then click **Manage**.



2. Click **Device Manager** and expand **Ports (COM & LPT)**. Then note the available COM Port number. The following example shows the assigned port number as **COM1**.



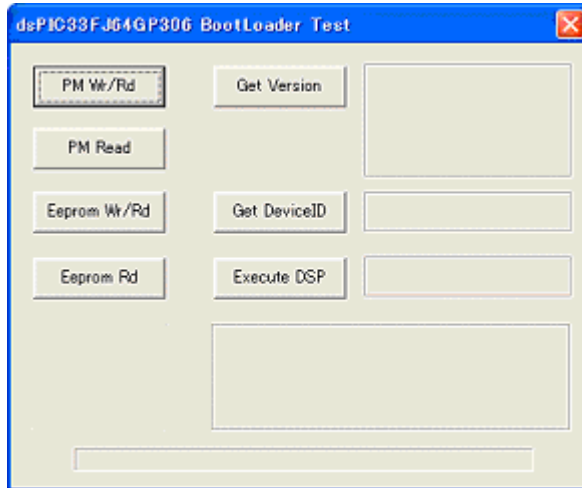
3. Open the C:\EPSON\epson13644_ap60_downloader_firmware_13 to find the three files:
 - a) BTLD_Test.exe
 - b) Bldtest.ini
 - c) DSP_code.hex
4. Open **bldtest.ini** file and verify the COM Port number.
It should match the COM Port number noted in the previous step.
If the COM Port number does not match the settings in Step 2 above, make the changes then save the file and close the window.



5. Launch **BTLD_Test.exe**
If the wrong port number is entered in the window shown in the previous step, the following error message will display.

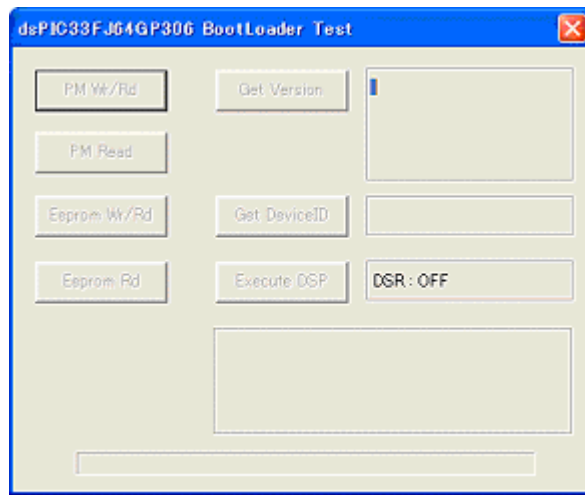


6. When each button in the following screen is active, the serial communication is available.



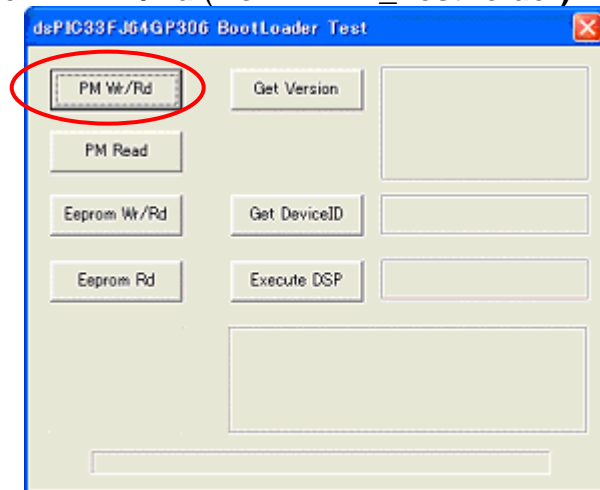
If the serial communication is not available, the buttons in the window are grayed out as shown below.

- Confirm that the AP-60's power light exhibits the flashing green LED again.
- Reseat the cable
- Restart PC
- Restart AP 60

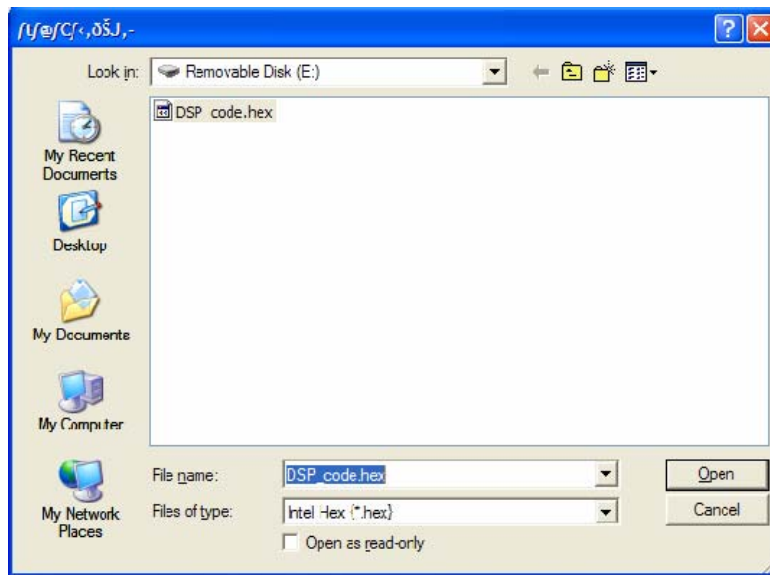


How to Rewrite the Firmware

1. Click **PM Wr/Rd** (from BTLD_Test folder)



2. Then select **DSP_code.hex**



3. And click **Open** button to start the Download.

4. Progress bar will display. The firmware update takes about a minute to process the firmware update. When the following message is displayed, click **OK**. This completes the firmware update.

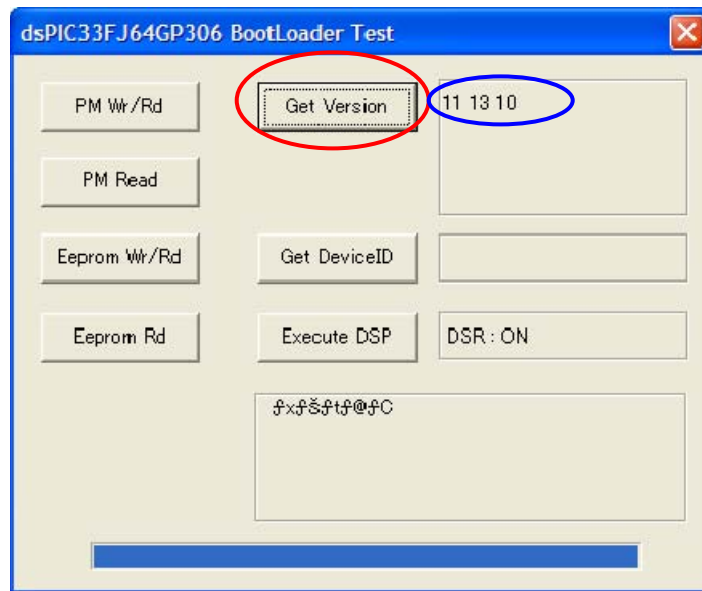


5. To confirm the firmware version, please follow the instructions listed below.

How to confirm firmware version number.

1. Click the **“Get Version”** button.

Three sets of numbers will display -Confirm that **“13”** is displayed in the center of the figures as show in the blue circle. **“13”** indicates the updated firmware version.



7. The download process has been completed.
8. To close the downloader window, click the **X** in the upper-right corner of the screen
 - Then press the PWR button on the front side of the audio control board to set the AP-60 to Standby mode
 - Disconnect the Power Cable
 - Disconnect the RS-232 cable
 - Reinstall the audio control board and secure the panel with two screws