DAC2 HGC and DAC2 L
Software Version 2.4 Upgrade Instructions

Cautions:

The DAC2 circuit boards and the software chip can be damaged by static electricity. Use of an ESD wrist strap is recommended. If a wrist strap is not available, hold chassis with one hand while inserting chip and moving jumpers. Do not touch the circuit board until your other hand is making contact with the chassis.

The software chip will be damaged if it is inserted backwards. The white line must face the rear panel of the DAC2!

Kit Contents:

- These instructions
- Software Chip
- Jumper

Instructions:

1. Unplug the power cord and all audio cables.
2. Remove the 8 screws on the sides of the top cover.
3. Remove the top cover.
4. On the main board, move the jumper at P1 so that it is on the two pins closest to C12 (see Figure 2).
5. Add new jumper to the top two pins on the back of the front panel control board at P1 (see Figure 3).
6. Insert the software chip in socket U8 on the main board with the white line facing the rear of the unit (see Figure 4).
7. Using Figure 4, check the positions of the jumpers (P1 on main board and P1 on control board).
8. Using Figure 4, check the orientation of the software chip. The white line must face the rear of the unit. The chip will be damaged if it is inserted backwards!
9. Replace the top cover.
10. Turn the unit on. The A2 and D3 lights should flash rapidly while the unit is turning on. This indicates that Version 2.4 is installed.

New features in Version 2.4:

- Added COMPATIBILITY mode to provide improved compatibility with LA4 and HPA4 line amplifiers. This feature sets the volume control to maximum on all inputs (HT light on, same level as HT mode). It also disables the MUTE and DIM. The remote control VOLUME and INPUT UP/DOWN keys will be ignored in this mode.
- Volume control is more responsive when moved slowly.
- EEPROM setting storage is now fully redundant to prevent data loss and data corruption.

New features in Version 2.2:

- Eliminated STANDBY mode (confusing feature which caused difficulties with automation systems).
- One press to turn on or off (simplifies remote control and automation).
- Added AUTO_ON function to allow compatibility with switched AC.
- Added automatic storage of last non-dimmed volume setting, recalled upon power up.
- Set DIM at 20 dB less than last non-dimmed volume setting.
- Improved gain tracking between analog and digital inputs.
- Max gain in all digital modes is now equal.
- Unit will not enter DIM unless DIM button is pressed (front panel or remote).
- Unit will exit DIM if DIM volume is raised above last non-dimmed volume setting.
- Servo does not make fine adjustments when digital inputs are active (this makes servo action quicker and quieter).
- Added second volume control look up table. By default, software is designed to be used with the 2016 DAC2 boards which are calibrated to +24 dBu at 0 dBFS. By adding a jumper to P1 on the control board, the software can be used with pre-2016 boards which are calibrated to +23 dBu at 0 dBFS. When properly configured, analog and digital sources should be reproduced at the same level (assuming the RCA input is 2 VRMS at 0 dBFS). The 2016 boards will produce 2 VRMS at 0 dBFS. Pre 2016 boards were 1 dB lower.
- DIM state is stored in memory. Recalled upon power up.
- In AUTO_ON mode, DIM and MUTE are disabled on power up.
- Starting with the unit off, press and hold POWER button for 3 seconds to activate AUTO_ON mode.
- Starting with the unit on, press and hold POWER button for 3 seconds to deactivate AUTO_ON mode. Unit will power down if successfully canceled.
- When AUTO_ON mode is active, any attempt to turn the unit off will MUTE the audio. The front-panel POWER button will toggle MUTE on and off when AUTO_ON is active.

Reverting back to old software:

If you wish to revert back to the old software the entire kit can be removed (see Figure 1), but this is not really necessary. The software chip and the jumper on the back of the control board can be left in place. Just move jumper P1 on the main board to its original position, and the original software will be activated. The jumper at P1 selects the on-board memory or the field-upgrade memory chip.

Technical Support:

CALL TOLL FREE: 1 (800) 262-4675
(M-F, 9AM - 5 PM, New York)
We are here to help! Please don't hesitate to call.

ADDITIONAL TELEPHONE NUMBERS:
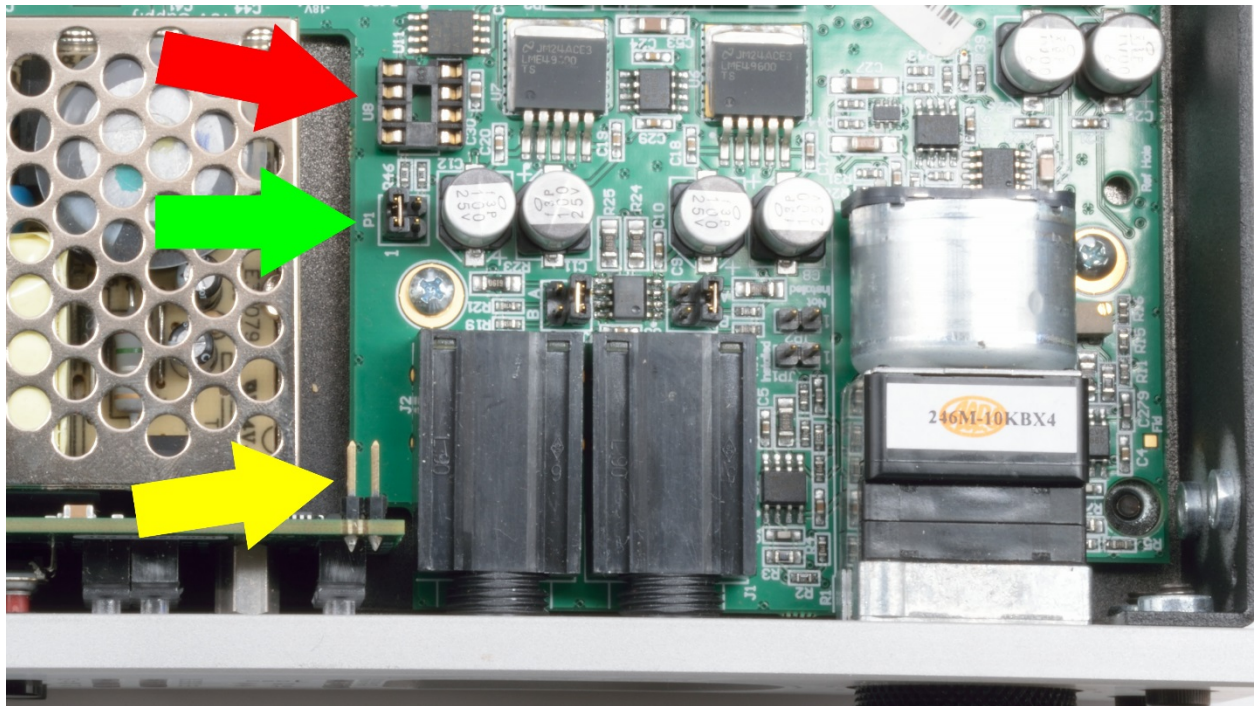Phone: 315-437-6300
Fax: 315-437-8119

Figure 1- Top view before installing software kit.

Figure 2 - On the main board, move jumper on P1 to this position.

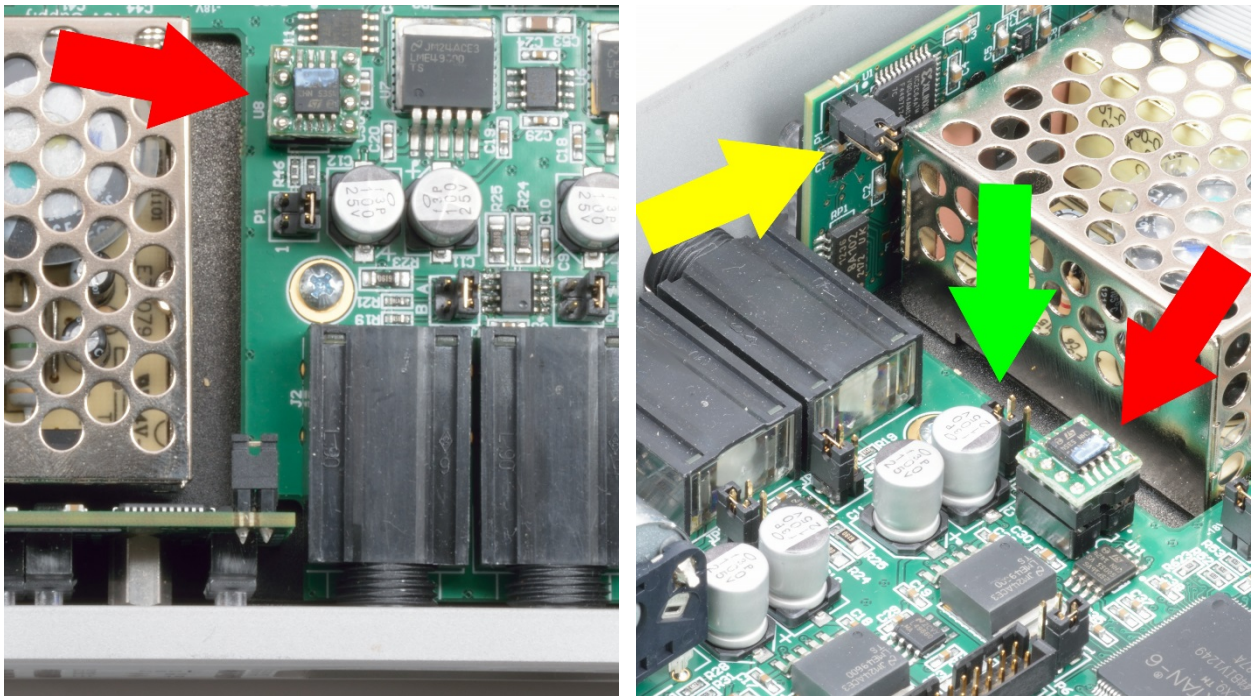**Figure 3 - Add new jumper to the back of the control panel as shown (top two pins of P1).**

Figure 4 - Finished installation. White line on software chip must face the rear of the unit!