# DAC3 HGC and DAC3 L
# Firmware Version 2.2 Upgrade Instructions

## New Version 2.2 Feature:

Version 2.2 improves the power management and provides a very slight reduction in standby power consumption. The improvement is so small that we do not recommend upgrading from 2.0 or 2.1 in order to "save power". Standby power consumption is reduced from 0.50 Watts to 0.28 Watts.

## New Version 2.1 Feature:

Version 2.1 adds an IR HEX code that provides direct selection of input A2 when using programmable universal remote controls. There are no other changes relative to Version 2.0.

## New Version 2.0 Feature:

### Preamp COMPATIBILITY mode

Versions starting with 2.0 include a preamplifier **COMPATIBILITY** mode. This mode disables the **MUTE** and **DIM** functions and places the volume control in the unity-gain **HT** position. Use this mode when the volume is being controlled by a downstream line amplifier such as the Benchmark *HPA4*.

When paired with an *HPA4*, the *DAC3* and *HPA4* can be controlled by a single Benchmark IR remote control. The *HPA4* provides volume control, **DIM** and **MUTE** functions. Both units switch inputs in a coordinated fashion so that all digital and analog inputs are available. Place the *DAC3* in compatibility mode and connect it to XLR input 1 on the *HPA4*. Select "Benchmark DAC on XLR1" in the *HPA4* REMOTE menu.

### Enabling and disabling the COMPATIBILITY mode:

- Simultaneously hold the **DIM/MUTE** and **INPUT-UP** keys for 3 seconds to activate or deactivate this feature.
- The **HT** light will be illuminated on all inputs when **COMPATIBILITY** mode is enabled.
- The **DIM/MUTE** key will be disabled when **COMPATIBILITY** mode is enabled.
- The *DAC3* will not respond to the **DIM**, **MUTE, VOLUME-UP** and **VOLUME-DOWN** keys on the IR remote when **COMPATIBILITY** mode is enabled.

## Cautions:

The *DAC3* 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 *DAC3*!

# Kit Contents:

- These instructions
- Software Chip
- 8 spare screws for the top cover
- Spare 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. Insert the software chip in socket U8 on the main board with the white line facing the rear of the unit (see Figure 3).
6. Using Figure 3, check the positions of the jumpers (P1 on main board).
7. Using Figure 3, 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!
8. Confirm the position of the jumper shown in Figure 4. An extra jumper is included for older units which do not have this jumper. The jumper should be on the rightmost set of pins.
9. Replace the top cover.
10. Turn the unit on. The A2 and D4 lights should flash rapidly while the unit is turning on. This indicates that Version 2.2 is installed.

# Reverting back 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:
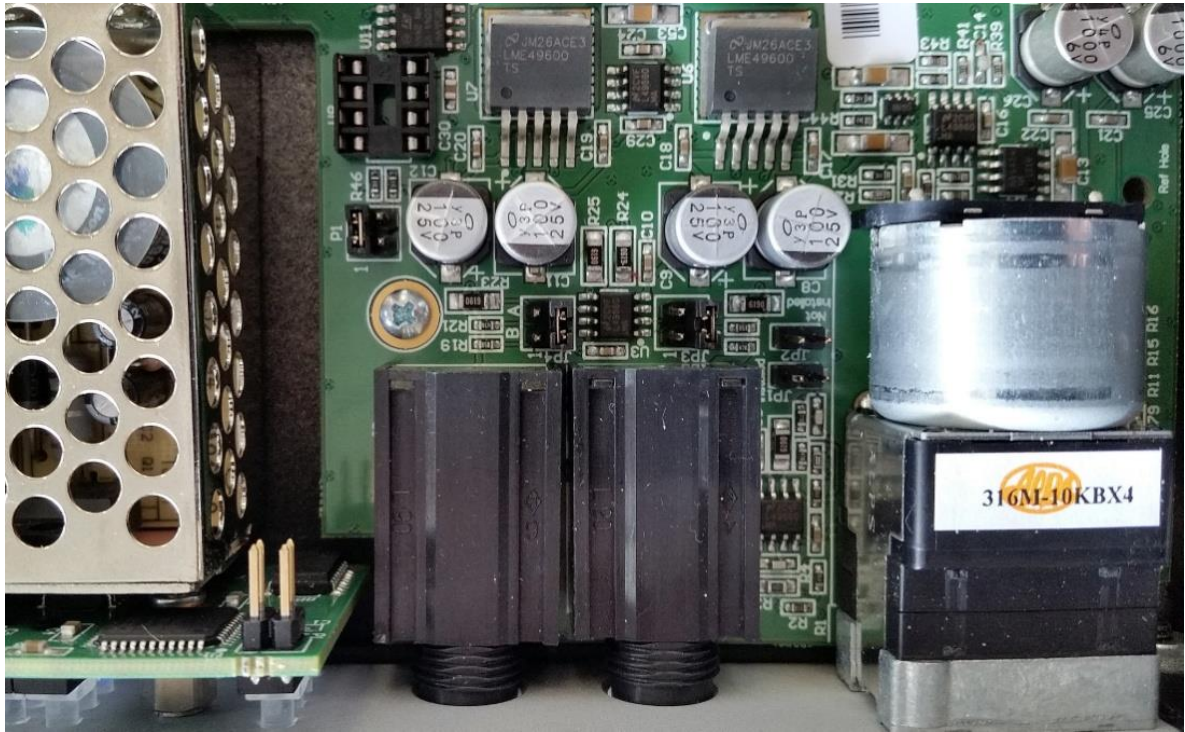Phone: 315-437-6300
Fax: 315-437-8119

**Figure 1- Top view before installing software kit (note the position of jumper on header P1).**
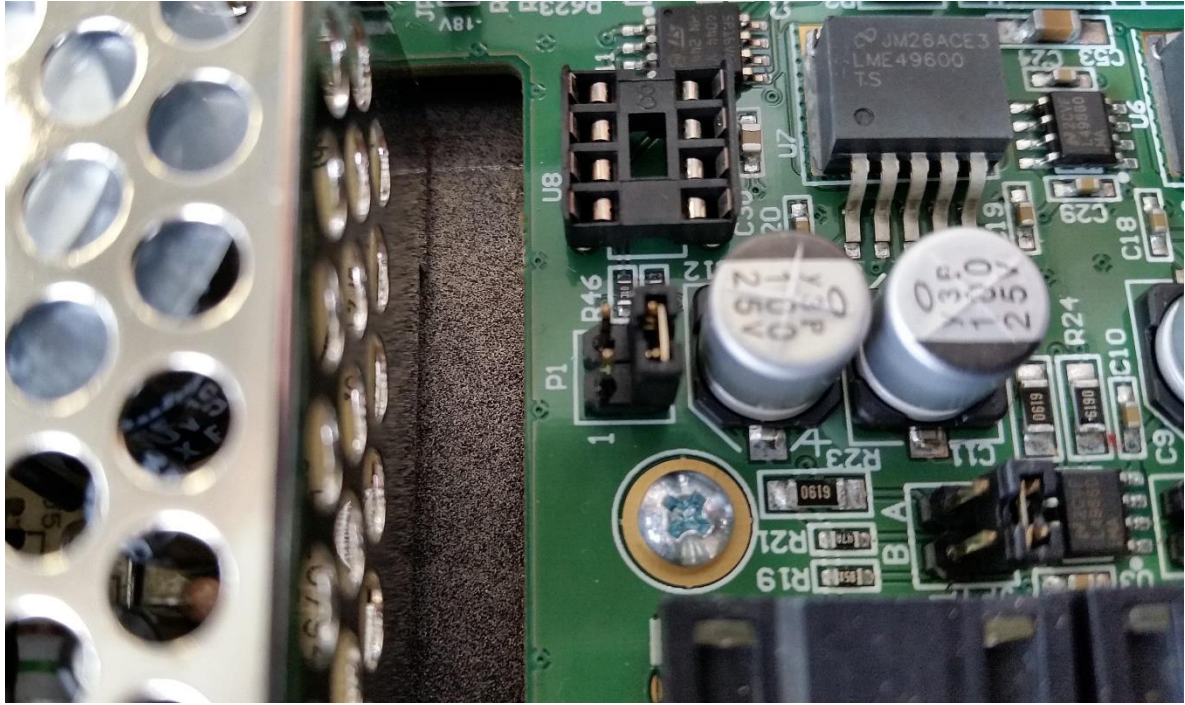


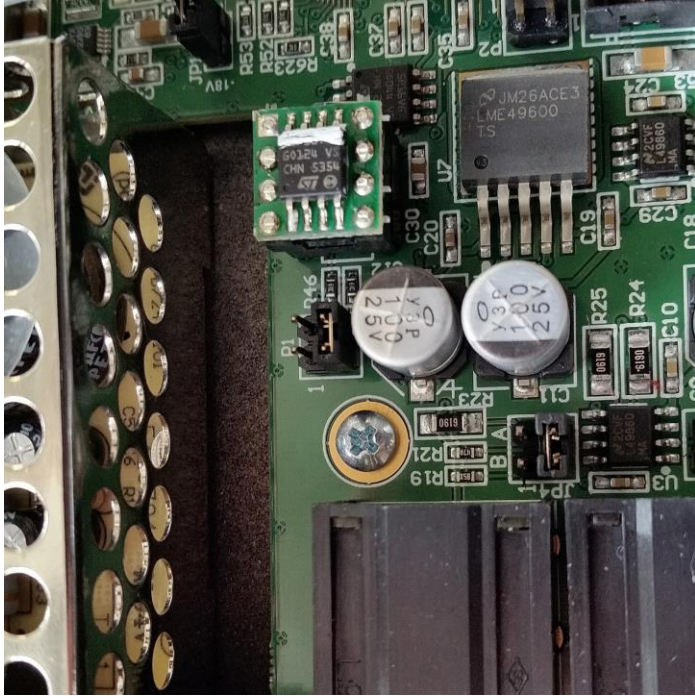**Figure 2 - On the main board, move jumper on P1 to this position.**
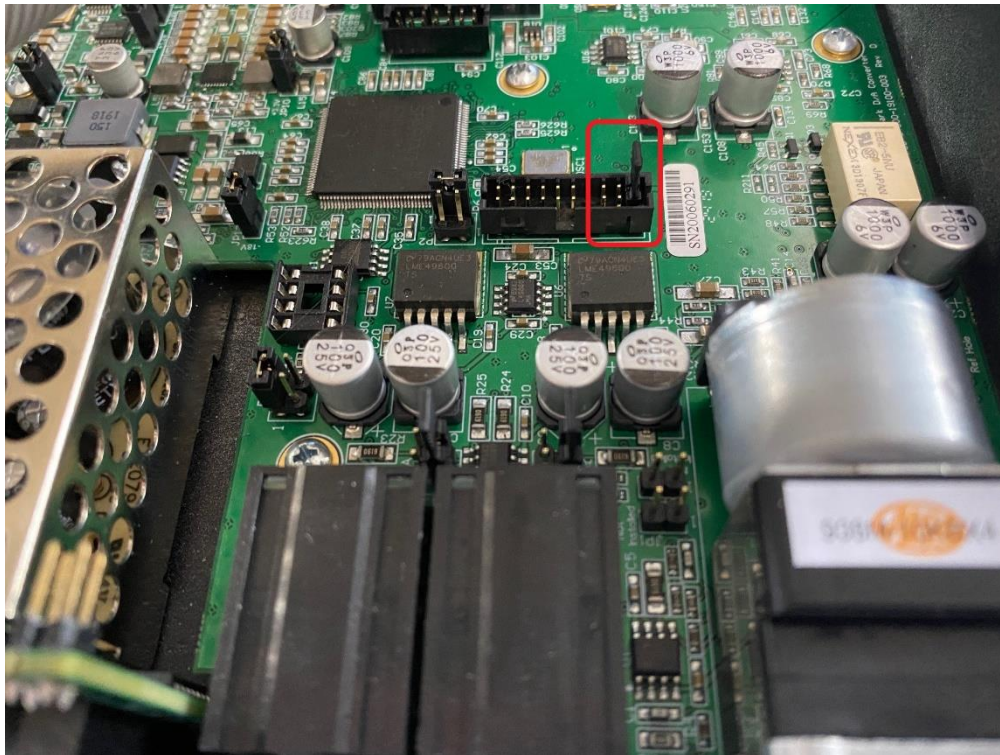
**Figure 3 - Finished installation. White line on software chip must face the rear of the unit!**



**Figure 4 – Extra Jumper position.**