Instructions for Installing Firmware Upgrades in SP1

1. Leave the unit plugged in, but turn the Main Power switch at the rear of the unit to the OFF position so the Standby/IR LED goes dark. This will ensure that the chassis is grounded while you are changing the chips, and reduce the chance of electrostatic discharge. {OR do the operation at a static workstation}
2. Find the Main Program ROM, a 32-pin WideDIP IC that is in a socket on a daughter board at the front of the unit, right beside the balance control. The chip is designated as U10. Pry this chip out using a small slot screwdriver.
3. To install the new chip (SP1V19B1), make sure to stay grounded by keeping in contact with the chassis. Note that the notch in the firmware ROM chip should be aligned to the notch in the socket, and be oriented toward the front of the SP1. Once you have plugged the chip in, look closely to make sure all leads were seated properly.
4. Now, find the DSP ROM on the square DSP module in the middle of the unit. It should be the only socket on the DSP module, a 28 pin PLCC chip.
5. To install the new chip (6.23), make sure to stay grounded by keeping in contact with the chassis. Note that the cutaway corner of the firmware ROM chip should be aligned to the notch in the socket, and oriented toward the rear of the SP1
6. Now, find the IR receiver chip on the power supply board, located right behind the IR sensor and Power switch at the front of the SP1. It is an 18pin DIP labelled PIC16F84. This chip is hard to get at, and the best way to remove it is to grab it with a pair of pliers and pull!
7. To install the new chip (version 10), make sure to stay grounded by keeping in contact with the chassis. Note that the notch in the chip should be aligned to the notch in the socket, and be oriented toward the rear of the SP1. Once you have plugged the chip in, look closely to make sure all leads were seated properly.
8. When you turn it on, you have to set the crossover frequency (new feature), and then power it down again, to save the value.