

## **Instructions for Replacing Processor Chip on the Rivera HeadMaster**

The Version 1.0 software shipped with some early HeadMasters contains a memory addressing bug. To fix this problem, the processor chip must be replaced.

This procedure requires skill and dexterity, and if you don't do it right, the HeadMaster can be damaged. Only attempt this if you are confident that you have the necessary skill. If you are not comfortable with this kind of work, contact Rivera for instructions on shipping the unit.

The HeadMaster contains static sensitive chips. You do not have to worry too much about this, but you do need to take reasonable care. If you are in a carpeted room on a dry day, you might have a static problem. Move into the kitchen or bathroom and do the job near a sink. Touch the faucet before starting the job to discharge any static you may have accumulated. As long as you work reasonably quickly, you will not have a static problem.

Remove the 6 screws on the bottom of the unit. Use a #2 Phillips screwdriver. If you use a screwdriver that is too small, like a #1, you might damage the screws.

Remove the two screws on the back panel above the relay jacks with the same screwdriver, notice that they are the same type of screw.

Remove the 4 small screws on the MIDI jacks. These require a #1 Phillips screwdriver. Be careful, these are small screws that thread into plastic, they are easy to strip.

The last two screws on the back panel have nuts behind them. You will have to reach inside the unit and hold the nuts while unscrewing these screws.

After all screws have been removed, the circuit board can be removed. There are two boards in the unit, the top board is screwed to the top of the unit. It is NOT necessary to remove the top board or the screws on the top of the unit. The bottom circuit board is attached with a flexible gray ribbon cable. It is flexible, but somewhat fragile. It can withstand SOME flexing, but if it is flexed repeatedly, IT WILL BREAK!

Carefully separate the bottom circuit board from the chassis and flex the ribbon cable so that the component side of the board is visible.

The processor chip can now be replaced. It is static sensitive, so be careful. Before removing the old chip, observe the orientation of the notch on the chip. The chip MUST be inserted in the correct direction, if you insert it backward, it WILL NOT work, and may blow up.

Chips come from the factory with their pins bent out slightly. Before insertion they need to be bent inward until they are perpendicular to the top of the chip. A good way to do this is to place the pins against a flat surface such as a tabletop and bend them all at once. This is easier than trying to bend them one at a time. When you insert the chip in the socket, be careful to ensure that ALL of the pins go into the holes. The pins are small, and it is easy to bend or kink them when inserting the chip.

After the chip is inserted, reassemble the unit. Be careful to avoid over-tightening the screws, they can strip.

Since the new software corrects a memory addressing problem, many of your old programs will be invalid. You must examine, and if necessary, reprogram all of your settings.

We apologize for this problem, and hope that you will be happy with the fix.

-Mike Peterson