



To: All WaveFrame version 6.2x and 6.5x Customers

RE: R8+ Card Information

Date: February 24, 2000

Dear WaveFrame Customer,

We thought it might be helpful to explain the differences between the standard and + versions of the R8 card. There have been many questions lately about what the supported configurations are and what problems might be encountered.

The differences between an R8 and R8+ card are as follows:

The original R8 had 2 megabytes of 1 by 9 pool ram (two 1 meg SIMMs). On the R8+ pool ram is upgraded to 8 megs of 4 by 9 pool ram. This allows 4 times more data to sit in the working area that is between the SCSI interface and the two DSPs that play tracks. This is part of how the R8+ can play and record eight tracks on a single bus.

The other change is the replacement of the two SCSI chips with a later design from Adaptec, the AIC33C93BL. This chip can run asynchronously and because of that has a larger on board buffer. This allowed us to take advantage of SCSI II drives.

Between these two changes we are now maxed out at the speed of the time shared bus between DSP, SCSI controller, pool ram and ram that moves data on and off of the DAB bus.

What does this mean?

What the software now does is examine the amount of pool ram on the lowest (1st) address R8 card. From this the NF/Vxd then sets up the ram. It is assumed that all boards have the same amount of pool ram.

We do not recommend nor support using a mix of these two boards in one system. However, one can mix R8 and R8+ boards in a pinch, but **only if each has the same amount of pool ram.** (There were no code changes to take advantage of the SCSI chip so that is not a problem.)

If you do need to change the pool RAM you must be very careful about what is used. It must be tin lead, must be 1 or 4 by 9, with a real hardware parity chip. If not, bad things will happen. We really do not want people putting RAM on R8's that did not come from us.

In addition, when using a system with mixed R8 and R8+ cards, the system must be used in the standard R8 mode, i.e.: 4 tracks per SCSI buss **only**. It is not possible to use any card in the system in the "R8+ mode" if the cards are mixed.

We hope this helps clear up any confusion about these two cards and their usage. Please refer to the version 6.20 and 6.50 release notes for additional information on using the R8+ card.

Sincerely,

WaveFrame Customer Support