



# KURZWEIL



## *Music Systems*

## Choosing and Installing SIMMs for K2500 Sample Memory



**NOTE:** SIMMs are not user-installable. Refer all work to a qualified service center.

Single In-Line Memory Modules, commonly referred to by the acronym "SIMM", are the small memory cards that the K2500 uses for Sample RAM. Early K2500 models take up to eight 30-pin SIMMs; K2500s with a rev. K or later mother board take up to two 72-pin SIMMs. In either case, however, 128 Megabytes of Sample RAM is the maximum. To determine the SIMM requirements of a K2500 without disassembling the unit, check its serial number; a "Z" as the seventh character (e.g., 479501Z00001) indicates that the K2500 has a rev. K or later mother board and requires 72-pin SIMMs. K2500s with a "0" as the seventh character of the serial number use 30-pin SIMMs.



**CAUTION:** Do not use composite SIMMs in any K2500. A composite SIMM is one that uses a PAL or other additional circuitry to make multiple DRAM chips act like bigger chips. Non-composite SIMMs (acceptable) have no chips other than DRAM memory chips soldered to the board. SIMMs with PALs, buffers, or other logic components will not work in a K2500; do not use them. Composite SIMMs may appear to work in some cases, but they will be unreliable.

### SIMMs for 30-pin sockets

K2500s with mother boards earlier than rev. K will only accept 30-pin non-composite SIMMs. Allowable sizes are 1 MB, 4 MB, and 16 MB, in either 8-bit or 9-bit configurations. The SIMMs must have an access time of 80 nanoseconds (ns) or faster. The maximum height and width of a 30-pin SIMM for the K2500 is 30mm x 90mm (approximately 1.2 inches x 3.5 inches). Below is a partial list of 30-pin SIMMs that work with the K2500:

Hitachi HB56A48A; 4Mx8

Hitachi HB56A49A; 4Mx9

TI TM124EU9B, TM124EU9C; 1Mx9

TI TM497EAD9B, TM4100EAD9; 4Mx9

TI TM4100GAD8, TM497GAD8A; 4Mx8

TI TM16100GBD8; 16Mx8

TI TM16100EBD9; 16Mx9

NEC MC-421000A8B; 1Mx8

NEC MC-424100A8B; 4Mx8

NEC MC-421000A9B; 1Mx9

NEC MC-424100A9B; 4Mx9

Tosh THM81000AS, Tosh THM81000BS, Tosh THM81070AS; 1Mx8

Tosh THM91000AS, Tosh THM91000BS, Tosh THM91070AS; 1Mx9

SIMMs are always installed in adjacent pairs, in the following slots: 1 and 2, 3 and 4, 5 and 6, 7 and 8.

## SIMMs for 72-pin sockets

K2500s with rev. K or later mother boards will only accept 72-pin non-composite SIMMs, in sizes of 4 MB, 8 MB, 16 MB, 32 MB, 64 MB, and 128 MB. The SIMMs can be in either 32-bit or 36-bit configurations, and must have an access time of 80 nanoseconds (ns) or faster.

Although K2500s with rev. K or later mother boards have two SIMM sockets, some SIMMs cannot be paired with other SIMMs, whether of the same or a different size. The table below shows the acceptable 72-pin SIMM configurations, and indicates which sizes can be combined.

Size	Configuration	Pair with other SIMMs?
4 MB	1Mx32 or 1Mx36	Yes
8 MB	2Mx32 or 2Mx36	No
16MB	4Mx32 or 4Mx36	Yes
32MB	8Mx32 or 8Mx36	No
64MB	16Mx32 or 16Mx36	Yes
128MB	32Mx32 or 32Mx36	No

### Configuration Chart for 72-pin SIMMs.

For example, a 4MB SIMM can be combined with another 4 MB SIMM to create 8 MB of sample memory. Similarly, a 4 MB SIMM could be paired with a 16 MB or 64 MB SIMM. It could not, however, be paired with an 8 MB, 32 MB or 128 MB SIMM. If you use an 8 MB, 32 MB, or 128 MB SIMM you cannot use the other SIMM socket.

Below is a partial list of 72-pin SIMMs that work with the K2500:

Mosel Vitelic	404J232	8MB
Hitachi	HB56U132	4MB
	HB56A232BA/SBA	8MB
	HB56A832BA/SBA	32MB
Oki	MSC232B132A-xxBS2/DS2	4MB
	MSC232B2321A-xxBS4/DS4	8MB
	MSC232B2322A-xxBS4/DS4	8MB
	MSC232B432A-xxBS8/DS8	16MB
	MSC232B832A-xxBS16/DS16	32MB
TI	TM124BK32F	4MB
	TM248BK32F/BK32U	8MB
	TM497BBK32F/BBK32S	16MB
	TM893BBK32F/BBK32S	32MB