SP-12
Rev. 2.6 Software

Dear Service Center,

Revision 2.6 Software for the SP-12 is finally here! We have been getting lots of requests for this final version, and we're sure you have too. 2.6 clears up the infrequent and mysterious memory loss bugs that have been plaguing the unit since day one. Dave Rossum got personally involved on this update and so we feel real good about it. Below is a list of bizzare 2.5 bugs and the changes that 2.6 provides. Maximum time for installation of this update is 1/2 hour (It's just an EPROM swap).
Reminder: There are 2 versions of SP-12. Some take a B1 ROM, some take a B2. Replace with the appropriate type or the play buttons will be backwards. The A ROM is universal.

2.5 Known Bugs

1. If SMPTE sync is entered while the current song is empty:
   The cue point displayed can be garbage.
   If a new cue point is entered, the songs numbered 2 and 3 less than the current song will be totally corrupted. Editing these corrupted songs will cause further memory corruption. If song 00,01 or 02 is current, segments 97, 98, or 99 could be corrupted instead.
2. If SETUP-SPECIAL-WRITE SMPTE is performed while the current song is empty:
   The start point for writing SMPTE will be garbage if the songs 2 and/or 3 less exist.
3. If SMPTE SYNC is in use while the current song is empty, and the songs 2 and/or 3 less exist:
   The cue point will be garbage.
4. If TEMPO in 10th's is entered while in an empty song:
   The song below it will be corrupted.
5. If enough data is entered in a segment during an odd loop of the segment (ie the 1st, 3rd, 5th time the segment loops during recording) to reach a "segment full" error:
   The segment will be illegally saved. If it is ever recorded again, copied, erased, or other parameters changed, it will corrupt sound memory pointers.

2.6 Fixes

1. If SMPTE sync is entered while in an empty song, the user is not shown nor given the opportunity to change the cue point.
2. SMPTE write while in an empty song begins at 00:00:00:00 .
3. SMPTE sync of an empty song uses cue point of 00:00:00:00 .

4. When tempo of an empty song is changed, no song tempos are changed.

5. The SEGMENT FULL error has been eliminated. Instead, the instrument allocates an appropriate buffer out of unused memory. This has the following consequences:

1. A segment that uses up to 50% of the available memory in an instrument can be recorded.

2. Any segment using more than the remaining available memory in the instrument cannot be recorded, copied, altered in various ways, or have the sounds erased. Any attempt to do this will result in the message"Not enuf memory". At this point, the user can save and delete other segments to gain enough memory to operate on the segment.

3. Statistically:

The SP-12 demo has 61 segments. The average size is about 0.4% of a turbo memory and 1.2% of a standard memory. The longest segment is 1.3% of a turbo and 4% of standard memory. In these cases, to get a "Not enuf memory" error, the turbo machine would need to be about 98% full(the standard demo is about 26% full), and the standard machine would have to be 96% full.

Note: The larger segment buffer can qualify as a feature since now MIDI drummers can record long segments into memory LIVE!