NEW KEYBOARD FEATURES

FOR THE VELOCITY/PRESSURE SENSITIVE KEYBOARD

April 15, 1985

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IMPROVED TRACK SLIDE FEATURE

The improved method of adjusting the starting time of each track can be used to precisely align tracks for rhythmic accuracy, or to adjust the "feel" of a track.

Earlier software moved all the notes on a track in whole-beat increments. For example, the starting note of a track that began on Beat 5 could be moved to Beat 13 by holding down the appropriate TRACK button and turning the control knob to the right. The same starting note could be moved to Beat 1 by holding down the TRACK button and turning the control knob to the left. All the notes on the track would be moved with the starting note.

Now you can slide a track by whole beats or by fractions of a beat. You can also display the position of the starting note in time (seconds and milliseconds) as well as in beats and fractions of a beat.

This new software feature can be used to precisely adjust different recorded tracks relative to the click track. For example, string sounds might be advanced by 10-20 milliseconds so that they "sound" more rhythmic.

Normally the starting time, in beats or seconds, will appear in the lower half of the display window. However, you can also display the starting time or beat while a sequence is p-aying. In this case, the starting time will be displayed in the upper half of the window, so that the changing beat number can be maintained in the lower half.

If the starting time of a track is adjusted while the sequence is playing, a slight hiccup in the sound may occur at the instant the starting time is changed. The rhythm will restore itself by the next click.

Track Sliding in Whole-Beat Increments

As in previous releases, you slide the notes on a tra@k forward or backward in whole-beat increments by placing the system in the justified mode (making the BOUNCE button blink). To slide the notes,

1. Press the TRACK button of the track you want to slide and hold it down. In the bottom of the display window you will see the number of the beat where the first note is recorded.

2. While holding down the TRACK button, turn the control knob. The display window will show the beat number changing in one-beat increments. That is, if the first note was recorded at Beat 4.5, turning the knob to the left will move the first note to Beat 3.5, then 2.5 and so on. All the notes on the track will also be adjusted.

To view the starting time in seconds and milliseconds, press the CLICK RATE button while holding down the TRACK SELECT button. The beat number in the display window will be replaced by its equivalent in seconds and milliseconds. To return to the display in beats, press CLICK RATE again.

Track Sliding in Fractions of a Beat

When the system is not in justified recording mode, that is, when the BOUNCE button is "off," the starting time of the first note on the track can be adjusted in increments of a fraction of the beat. The sliding is done in 5-millisecond increments, so the actual fraction of the beat depends on the click rate.

Again, you can toggle between a display in beats:fractions of beat and seconds:milliseconds by pressing the CLICK RATE button while you hold down the TRACK SELECT button.

Adjusting the Track Starting Time

1. Recall a sequence. It does not matter whether it was recorded in the justified or unjustified mode.

2. Press Button 1 under TRACK SELECT and hold it down. The number of the starting beat will appear in the lower half of the display window.

3. Turn the control knob to adjust the starting beat.

4. While continuing to hold down Button 1, press CLICK RATE. The starting time in seconds and milliseconds will appear in the display window.

5. Turn the control knob to adjust the starting time. Notice that the adjustments are in 5 millisecond increments.

6. Press START.

7. Press and hold down Button 1 under TRACK SELECT. While the sequence plays and the changing beat is displayed in the lower half of the display window, the starting time in seconds and milliseconds will appear in the upper half.

8. While continuing to hold down Button 1, press CLICK RATE. The display in the upper half of the display window will change to beats and fractions of a beat.

9. Press STOP.

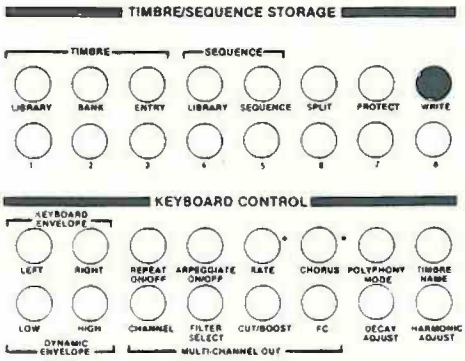
10. Press BOUNCE so that it is blinking to place the system in the justified mode.

11. Press Track 1 under TRACK SELECT. The starting beat will appear in the lower half of the display window.

12. Adjust the starting beat with the control knob. Notice that the adjustments now are in one-beat increments.

WRITE BUTTON

The WRITE button on the keyboard panel is used to store both sequences and timbres.



So that you do not accidentally store a timbre when you mean to store a sequence, or vice versa, the WRITE button now provides several display window messages that tell you what is being written to disk.

Storing the Keyboard Timbre

To store the keyboard timbre, follow this procedure:

1. Press the TIMBRE BANK button and the numbered button corresponding to the bank number where you want to store the timbre.

2. Press WRITE and hold it down. In the display window you will see the message

   PRESS ENTRY, BANK OR SEQUENCE

3. Continue to hold down WRITE while you press the TIMBRE ENTRY button. In the display window you will see

   "1-8" WILL STORE TIMBRE IN BANK [number of bank]

4. Continue to hold down WRITE while you press the numbered button corresponding to the timbre entry where you want to store the timbre. The message

   [Number of sectors] SECTORS WRITTEG TO DISK

   will appear in the display window.

If you do not press the buttons in the correct order, the timbre will not be stored and the error message

ERROR - NOTHING WRITTEN TO DISK

will appear in the display window.

Storing an Entire Bank of Timbres

To store an entire bank of timbres, follow this procedure:

1. Recall the timbre bank you want to store by pressing TIMBRE BANK and the appropriate numbered button.

2. Press WRITE and hold it down. Again, the message

   PRESS ENTRY, BANK OR SEQUENCE

   will appear in the display window.

3. Continue to hold down WRITE while you press BANK. The message

   PRESS "1-8" TO WRITE WHOLE BANK

   will appear in the display window.

4. Continue to hold down WRITE while you press the number of the bank where you want the bank in memory stored. The message

   [Number of sectors] SECTORS WRITTEN TO DISK

   will appear in the display window.

Storing a Sequence

To store a sequence, follow this procedure:

1. Press WRITE and hold it down. Again, the message

   PRESS ENTRY, BANK OR SEQUENCE

   will appear in the display window.

2. Hold down WRITE and press SEQUENCE. In the display window you will see

   PRESS "1-8" TO STORE SEQUENCE

3. Continue to hold down WRITE while you press the numbered button where you want to store the sequence. The message

   [Number of sectors] SECTORS WRITTEN TO DISK

   will appear in the display window.

If you press any button other than BANK, ENTRY or SEQUENCE after you first press WRITE, the terminal will beep and the error message

MUST PRESS ENTRY, BANK OR SEQUENCE

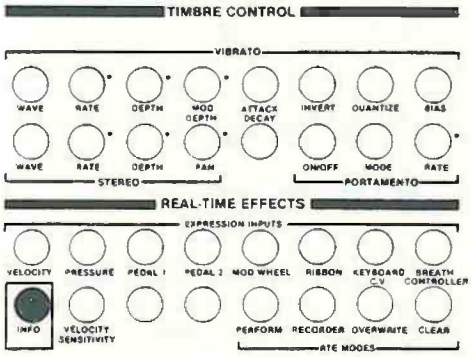
will appear in the display window. Nothing will be stored and after you release the WRITE button, the message

ERROR - NOTHING WRITTEN TO DISK

will appear in the display window.

INFO BUTTON

On the Velocity/Pressure Keyboard Unit, there is an INFO button located on the fifth panel.



You will use this button to get information about tracks recorded in the Memory Recorder.

When you press INFO, the keyboard is placed into the Info Mode. Then when you press one of the numbered buttons under TRACK SELECT, the first note of that track will be played. In addition, the display window will tell you the name of the timbre and how many notes have been recorded on that track.

Using the INFO Button

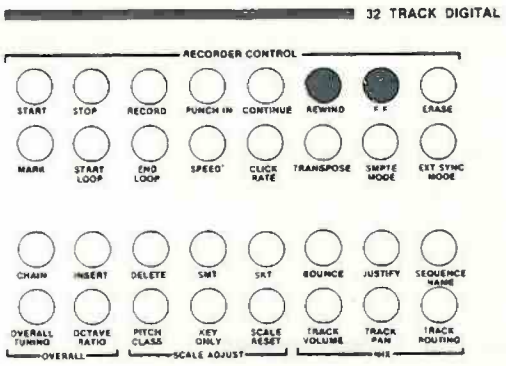
1. Call up a multitrack sequence and press START. You will hear many notes with di+ferent timbres.

2. Press the INFO button. This places the keyboard in the Info Mode.

3. Press a track button. You will hear the first note recorded on that track. In the display window, you will see the number of notes that has been recorded on that track.

FAST FORWARD/REWIND MODES

When you press the F. F. or REWIND buttons in the second panel,



a built-in software "mute", similar to a "tape lift" feature on a multitrack tape recorder, automatically lowers the volume level of the Synclavier (R) during the fast forward and rewind modes.

DOUBLE START

As you know, you press the START button twice to play back a sequence in the memory recorder from the first recorded note instead of the first beat. In previous releases, there was a limit to this feature in that the double START would only function with notes recorded in the first 1000 beats. Thus it was difficult to add to or edit a track that was silent for more than 1000 beats.

This limitation has now been removed and the double START feature works with first notes recorded at any point in the sequence.

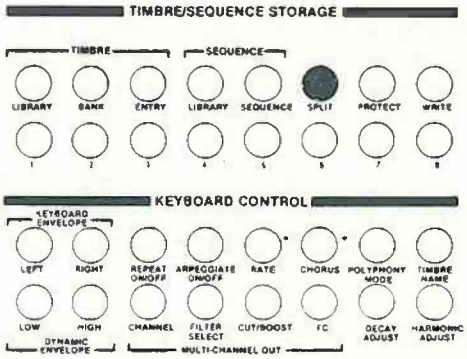
OVERDUBBING

In Release V, the memory recorded automatically selected the first empty track each time you pressed RECORD, regardless of whether or not the keyboard timbre was different from a previously recorded timbre.

Now the memory recorder will select the first empty track only when you change timbres. If you overdub with the same timbre as a previously recorded timbre, the notes will be recorded on the same track as the previously recorded timbre.

SPLITTING THE KEYBOARD

With previous software, you used the SKT button to place a second timbre on the keyboard. Now you use the SPLIT button in the fourth panel. Additionally, you can place a timbre from a track in the memory recorder as well as from a timbre file on the upper or lower keyboard.



To place a timbre on the upper half of t*e keyboard, press SPLIT once before recalling the timbre. When you press SPLIT, the TRACK SELECT buttons as well as the numbered buttons under TIMBRE/SEQUENCE STORAGE will start to blink. This indicates that you can recall a timbre from either

- the timbre file in the current catalog using the TIMBRE BANK and ENTRY buttons; or
- a track in the memory recorder by pressing the appropriate TRACK SELECT button.

When the timbre has been recalled, all the lights will go out and the selected timbre will be placed on middle C and all the notes above it. The original timbre will remain on the lower half of the keyboard.

To place a timbre on the lower half of the keyboard, press SPLIT twice before recalling a timbre as before. The selected timbre will be placed on all notes below middle C while the original timbre remains on the upper half of the keyboard.

As before, you can change the default split point, middle C, either before or after you recall a timbre. To change the split point,

1. press SPLIT;

2. press any key on the keyboard.

Do this just before you recall a timbre. Or, if you do it after you have split the keyboard, press STOP after you press the key for the new split point.

SYNC DELAY

The EXT SYNC MODE button in the second panel places the Synclavier (R) in the external synchronization mode. The Beat Sync mode, accessed when you press EXT SYNC MODE twice, triggers an external synchronizati on signal determined by the click rate of the sequence in the memory recorder. (See "External Synchronization" in Binder 1.)

There is a new sync delay feature with the Beat Sync mode. You will use this feature when synchronizing the Synclavier (R) to a external sync signal that is faster than the click rate of the recorded sequence.

With the sync delay feature, you can set a delay time of anywhere from 0 to 75 milliseconds, thus allowing the Synclavier (R) to "look ahead" to the next incoming signal while still playing the preceding beat.

When using sync delay, the Synclavier (R) will wait the specified number of milliseconds after receiving the external trigger before advancing the sequencer by the appropriate time unit.

When you press EXT SYNC MODE, the current sync delay will appear in the display window. You can dial in any sync delay from 0.0 to 75.0 milliseconds.

For example, suppose you are using a sequence on the Linn drum recorded at 120 beats per minute to drive a Synclavier (R) sequence, also recorded at 120 beats per minute. (You will have to first condition these signals through a Clock Interface Module. See the Clock Interface Module Manual.)

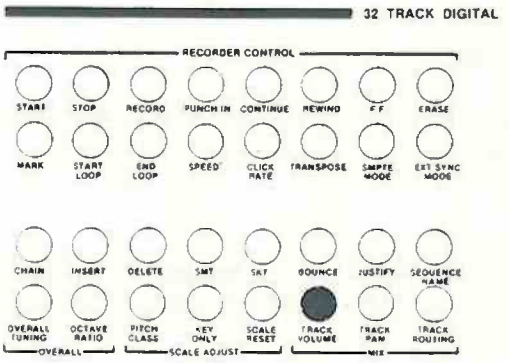
If the Linn drum is played back at its recorded speed, then the Synclavier (R) sequence will be triggered with no problem.

However, if the playback of the Linn drum is speeded up to, say, 180 beats per minute, the Synclavier (R) may not "be ready" for the faster incoming signal. The memory recorder may still be playing the notes in between Beat 1 and Beat 2 when the external signal for Beat 2 is received and thus the signal will not be able to trigger the notes from Beat 2 to Beat 3.

If a sync delay of 50 milliseconds is dialed in, then the external signal for Beat 2 will be delayed for the 50 milliseconds while the memory recorder finishes playing the in-between notes and the faster Synclavier (R) playback will continue to be in perfect synchronization with the Linn drum sequence.

TRACK VOLUME

The TRACK VOLUME button in the second panel is used to adjust the relative volume of each track in the memory recorder.



Follow these instructions:

1. Press START. The sequence in the memory recorder will start to play.

2. Press and hold TRACK VOLUME while you. . .

3. . . .press the selected track button under TRACK SELECT and then release both buttons. You will see in the display window

   TRK [number] VOL 100.0

4. Turn the control knob to adjust the track volume from 0.0 to 100.0. As you turn the knob, you will hear the change in volume in the selected track.

5. Press STOP.

The track volume for each track will be stored with the sequence.

You can also adjust the volume of the keyboard with respect to the sequence in the memory recorder. This feature can be used in the studio when recording live tracks along with a sequence.

To adjust the keyboard loudness,

1. press and hold TRACK VOLUME while you. . .

2. . . .play a note on the keyboard. Release both button and key. The display window will show

   KEYBRD VOL: 100.0

3. Turn the control knob to adjust overall loudness of the keyboard. If you press a key while you turn the control knob, you will hear the changes in volume.

If you have a split keyboard, you can adjust the loudness of each half of the keyboard.

NOTE: You are adjusting the keyboard loudness, not the timbre loudness. When you change timbres, the keyboard loudness that you have dialed in will remain in effect.