Modifying and storing whole timbres

Modifying the whole timbre

When you modify the entire timbre, each partial timbre of the current timbre is affected.

Keyboard polyphony control

When you play a timbre programmed to be fully poly-phonic, the number of notes that can sound simultane-ously is limited by the number of voices in your system.

For example, if the current timbre has four partial timbres and your system has sixteen voices, only four notes can sound simultaneously. If you play a fifth note, the system tries to free up a voice by cutting off any note in its final decay. However, if it cannot free up any voices this way, the new note does not play and bars appear in the display window.

A polyphony number of 1 makes the timbre monophonic. When the keyboard timbre is monophonic, each new note cuts off the previous note. You can play clean trills or other fast sequences, even if the timbre has a long final decay. But you will not be able to play a chord.

## Setting keyboard polyphony

1. Press the POLYPHONY MODE button in the fourth
   panel.

   The button lights and the display window shows.

   [number] POLYPHONY

2. Use the control knob to select a polyphony mode
   setting between 1 and 128.

The number you select determines the number of notes
that can sound simultaneously on the keyboard, regard-
less of the number of voices in your system.
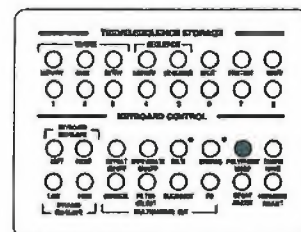
POLYPHONY MODE
panel 4

Modifying the whole timbre (con't)

Repeat and arpeggiate

The repeat and arpeggiate functions cause multiple notes to be triggered by each pressing of a key.

- When REPEAT alone is on, a note or chord is repeated at the selected rate so long as you hold down the key or keys.

- When ARPEGGIATE is on, a chord is arpeggiated once at the selected rate.

- When both functions are on, a chord is arpeggiated and repeated as long as the keys are pressed.

Activating repeat and arpeggiate

To turn on repeat:

1. Press the REPEAT ON/OFF button.

    The button lights.

2. Press the REPEAT/ARPEGGIATE RATE button.

    The button lights, and the display window shows

    [number] HERTZ

3. Use the control knob to set a repeat rate between 0.00 and 50.00 hertz.

To turn on arpeggiate:

1. Press the ARPEGGIATE ON/OFF button.

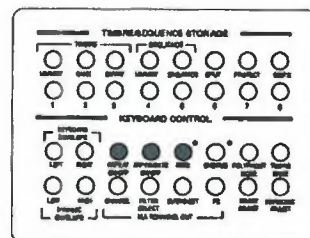   The button lights.

2. Press the REPEAT/ARPEGGIATE RATE button.

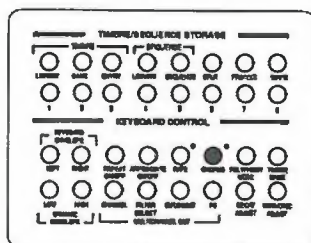   The button lights, and the display window shows

    [number] HERTZ

3. Use the control knob to select an arpeggiate rate between 0.00 and 50.00

The same rate button is used for both functions. If a rate has been set for one function, the same rate applies when the other function is turned on.

REPEAT ON/OFF,
ARPEGGIATE ON/OFF, RATE
panel 4

Chorus

The chorus function adds another voice to each of the partial timbres in the whole timbre.

1. Press the CHORUS button.

    The button lights and the display window shows

    [number] CHORUS

2. Use the control knob to select a chorus setting between 0.000 and 10.000.

The number dialed in establishes the interval above or below the fundamental pitch, with 1.000 representing a unison.

You can achieve **phase shift** effects (flanging) by tuning the added voice to a pitch very near the fundamental or an octave harmonic or subharmonic. A setting of 1.003 or 0.998 results in difference tones which are below the audible range, but are noticeable as phase shift in the upper harmonics of the tone.

You can reinforce the existing harmonics of a tone by dialing in an integer as shown in the table on the opposite page.

Inharmonic frequencies producing harsh effects can be added by selecting certain non-integer values.

chorus setting	relationship of added voice to original sound file
0.125	three octaves below
0.250	two octaves below
0.500	one octave below
1.000	unison
1.125	major third above
1.500	perfect fifth above
2.000	second harmonic (octave above)
3.000	third harmonic (octave plus a perfect fifth above)
4.000	fourth harmonic (two octaves above)
5.000	fifth harmonic (two octaves plus a major third above)
6.000	sixth harmonic (two octaves plus a perfect fifth above)
7.000	seventh harmonic (two octaves plus a minor seventh above)
8.000	eighth harmonic (three octaves above)
9.000	nineth harmonic (three octaves plus a major second above)
10.000	tenth harmonic (three octaves plus a major third above)

Modifying the whole timbre (con't)

Naming a timbre from the terminal

You can name the keyboard timbre using the timbre name item on the main menu on the terminal.

1. Select the timbre name item by moving the cursor and pressing Return. Or type the letter next to it.

   The cursor moves to the lower left corner of the screen where the current timbre name, if any, is displayed.

2. Type in the new timbre name and press Return.

A filename can be up to eight characters long and can include letters, numbers and symbols. It cannot contain spaces or any of the following characters:

   ? ! : ; , / \ < > + = % & * | @

The new timbre name appears at the lower right corner of the screen.

Naming a timbre from the keyboard

You can also name a timbre using the TIMBRE NAME
button in the fourth panel.

1. Press the TIMBRE NAME button.

    The current timbre name, if any, appears in the
    upper half of the display window. The first
    character of the name is flashing, ready to be
    changed. If no name has been entered for the
    current timbre, the window is blank and there is a
   blinking underline.

2. Turn the control knob until the character you want
    appears in the display window.

3. Press TIMBRE NAME again.

    The character appears in the display window and
    the blinking cursor moves one space to the right.

    4. Repeat steps 1 and 2 until the timbre name is
    complete.

You can move the cursor to any character by pressing
TIMBRE NAME repeatedly or by holding down TIMBRE
NAME while you turn the control knob. In the first in-
stance, the cursor wraps around to the beginning charac-
ter or space. In the second, it does not.

You can delete a character by placing the cursor on the
character and turning the control knob all the way to the
right.
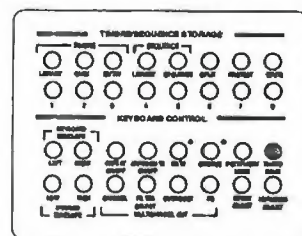
TIMBRE NAME
panel 4

Storing timbres

You should store your timbres to disk regularly and often.

Timbre files

You store timbres in **timbre files** located in subcatalogs of the Winchester or on floppy disks. Each timbre file is named **.newdata;** there can be only one **.newdata** file in each subcatalog in your storage system.

Timbre files are organized into eight banks with each bank containing up to eight entries. Each timbre entry is automatically given an identifying name. Its assigned timbre name also helps to identify it.

When you store a timbre to a selected place in the timbre file, it replaces any existing timbre stored in that place.

The disk labeled **Master Timbre/Sequence Storage Disk** contains an empty timbre file. Before you start storing timbres, you should make a copy of the timbre file on this disk. You can create a subcatalog on your Winchester and copy it into that, as described in the manual *Organizing and Storing Sounds*. Or you can copy it onto a blank **formatted** floppy disk, following the instructions for the **formcopy** utility in the *Quick Reference Guide*.

What is stored

When you store a Synclavier timbre, you store all the information about the timbre, including

- the name of each sound file contained in the timbre,

- the volume envelope,

- all partial timbre special effects including vibrato, portamento, tremolo (amplitude modulation), tuning, volume, chorus, final decay, keyboard envelope and real-time effects,

- all modifications of the whole timbre such as chorus, arpeggiate, repeat and polyphony control,

- the timbre name.

Storing timbres (con't)
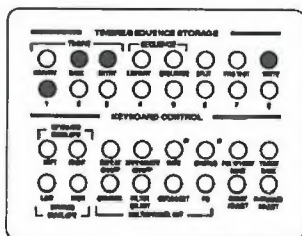
BANK, ENTRY, WRITE
panel 4

Storing a timbre in the current catalog

To store a timbre in a timbre file in the current catalog, follow the instructions below.

1. Press BANK and the numbered button of the bank where you wish to store the timbre.

2. Press WRITE and hold it down. In the display window is the message

   PRESS ENTRY,
   BANK OR SEQUENCE

3. Continue to hold down WRITE while you press ENTRY. The display window shows the following message:

   "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. In the display window is the following message:

   [number of sectors] SECTORS
   WRITTEN TO DISK

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

   ERROR – NOTHING
   WRITTEN TO DISK

Repeat the storage procedure, making sure the steps are taken in the right order.

Storing a timbre on a floppy disk

To store a sound file timbre in the timbre file on a floppy disk, replace the Winchester Bootload Disk in the F0: drive with a **formatted** disk that includes a **.newdata** file. Then follow the instructions below.

1. Press BANK.

2. Press the numbered button corresponding to the bank where you want to store the new timbre.

3. Press WRITE and hold it down. The display window shows the message

   PRESS ENTRY,
   BANK OR SEQUENCE

4. Continue to hold down WRITE while you press and hold TIMBRE LIBRARY.

5. Continue to hold down WRITE and LIBRARY while you press ENTRY. In the display window you see

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

6. Continue to hold down **both** WRITE and LIBRARY while you press the numbered button corresponding to the timbre entry where you want to store the timbre. The message

   [number of sectors] SECTORS
   WRITTEN TO DISK

   appears in the display window.
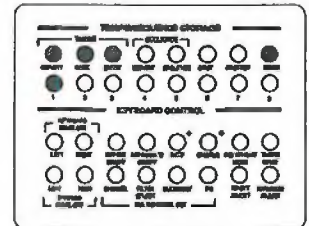
TIMBRE LIBRARY,
BANK, ENTRY, WRITE
panel 4