

EDIT MENU

The edit menu contains functions that can be modified by the user and then saved as preset information in one of the user presets. For example, the LFO speed or other parameter can be edited, then the preset can be saved to a user location (0-255).

WARNING

Changes made in the Edit menu will be forever lost unless the preset is "saved" using the Save Preset function (page 66) before changing the preset.

To enable the Edit menu

Press the Edit key, lighting the LED. The current screen will be the one most recently selected since powering up the machine. The cursor will appear underneath the first character of the screen heading on line one.

To select a new screen

Press the cursor key repeatedly (or hold the cursor key while turning the data entry control) until the cursor is underneath the parameter name. Rotate the data entry control to select the screen.

To modify a parameter

Press the cursor key repeatedly (or hold the cursor key while turning the data entry control) until the cursor is underneath the parameter value. Rotate the data entry control to change the value.

To return to Preset Select mode

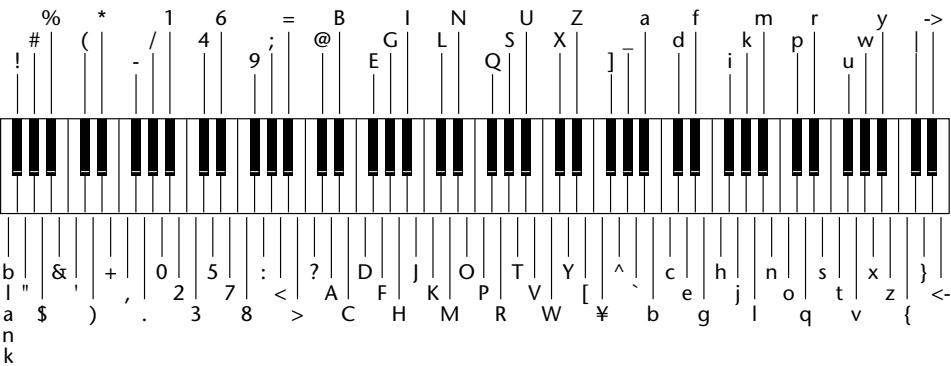
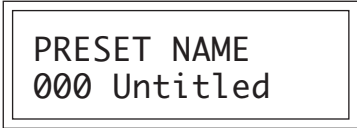
Press the Edit button, turning off the LED.

●●● While the Edit menu is activated, incoming MIDI preset changes are ignored. This is a quick and easy way to temporarily turn MIDI Preset Change OFF.

EDIT MENU FUNCTIONS

• *Preset Name*

Preset Name allows you to name each of the user presets with a name of up to 12 characters. Position the cursor under the character location and use the data entry control to change the character. The keyboard can also be used to select characters. The charts below show the keyboard character assignment.



	C	C#	D	D#	E	F	F#	G	G#	A	A#	B	Pitch
-2						blank	!	"	#	\$	%	&	
-1	'	()	*	+	,	-	.	/	0	1	2	
0	3	4	5	6	7	8	9	:	;	<	=	>	
1	?	@	A	B	C	D	E	F	G	H	I	J	
2	K	L	M	N	O	P	Q	R	S	T	U	V	
3	W	X	Y	Z	[¥]	^	_	`	a	b	
4	c	d	e	f	g	h	i	j	k	l	m	n	
5	o	p	q	r	s	t	u	v	w	x	y	z	
6	{		}	➡	⬅								

Octave
No.

• **Primary Instrument**

This function allows you to select which of the available instrument sounds (or none) will be placed on the primary layer of the current user preset.

```
INSTRUMENT pri
I002 Piano Pad
```

• **Secondary Instrument**

This function allows you to select which of the available instrument sounds (or none) will be placed on the secondary layer of the current user preset.

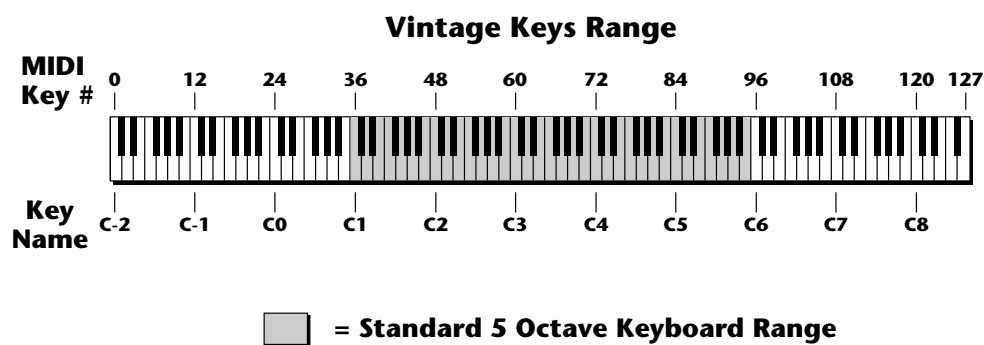
```
INSTRUMENT sec
I001 Piano
```

... Simply changing the instrument creates a new sound while retaining all other parameters of the preset.

• **Key Range**

Key range sets the keyboard range of both primary and secondary instruments. This sets the keyboard range for the entire preset and will further limit the primary and secondary keyboard ranges. The key range can be set anywhere from C-2 to G8.

```
KEY RANGE
C-2 -> G8
```



• **Primary Key Range**

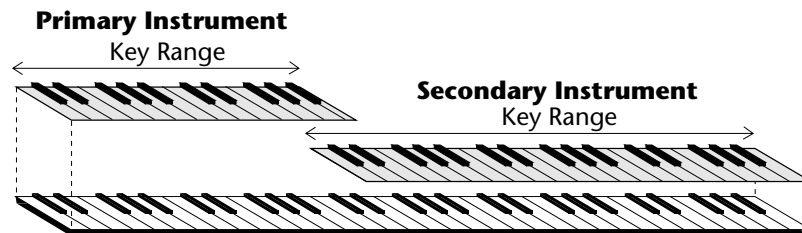
Key range sets the keyboard range of the primary instrument. This is useful for creating positional crossfades and keyboard splits between the primary and secondary layers. The key range can be set anywhere from C-2 to G8.

```
KEY RANGE pri
C-2 -> G4
```

• **Secondary Key Range**

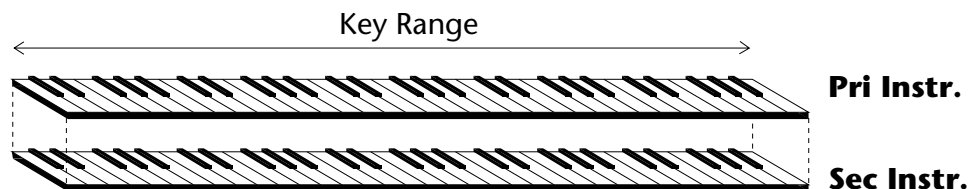
Key range sets the keyboard range of the secondary instrument. The key range can be set anywhere from C-2 to G8.

```
KEY RANGE sec
G#4 -> G8
```



This diagram shows how a “split” keyboard can be programmed using the primary and secondary instruments.

... Entire presets can also be Linked to form split or layered keyboards.



This diagram shows how instruments can be layered or “stacked” using the primary and secondary instruments.

- **Coarse Tuning**

This function allows you to change the tuning of the primary and secondary instruments in semitone intervals. The coarse tuning range is -36 to +36 semitones. A coarse tuning setting of “00” would indicate that the instrument is tuned to concert pitch (A=440 Hz).

```
TUNING coarse
pri:+00  sec:+00
```

- **Fine Tuning**

This function allows you to change the tuning of the primary and secondary instruments in 1/64 semitone intervals (approx. 1.56 cents). The fine tuning range is ± 1 semitone.

```
TUNING fine
pri:+00  sec:+00
```

- **Volume**

Volume sets the amplitude of the primary and secondary instruments. This function also allows you to compensate for the relative volume differences between instruments.

```
VOLUME
pri:127  sec:64
```

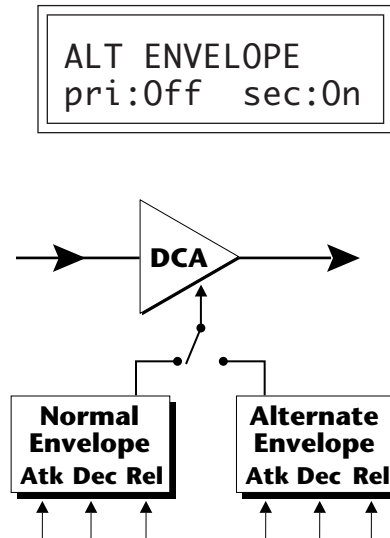
- **Pan**

Pan allows you to independently set the initial pan position of the primary and secondary instruments. A value of -7 pans the instrument hard left and a value of +7 pans the instrument hard right. This pan setting is only valid if “P”, for preset pan, is selected in the main display.

```
PAN
pri:-7   sec:+7
```

• *Alternate Envelope On/Off*

Each instrument has its own factory preset AHDSR volume envelope which is normally employed. If a programmable volume envelope is desired, the alternate envelope is used.



• *Primary Alternate Envelope Parameters*

This function allows you to adjust the alternate volume envelope parameters for the primary instrument. The parameters are Attack time, Hold time, Decay time, Sustain level, Release time and are adjustable from 00 to 99.

P:	A	H	D	S	R
	00	00	00	99	16

• *Secondary Alternate Envelope Parameters*

This function allows you to adjust the alternate volume envelope parameters for the secondary instrument. The parameters are Attack time, Hold time, Decay time, Sustain level, Release time and are adjustable from 00 to 99.

S:	A	H	D	S	R
	00	00	00	99	16

- **Delay**

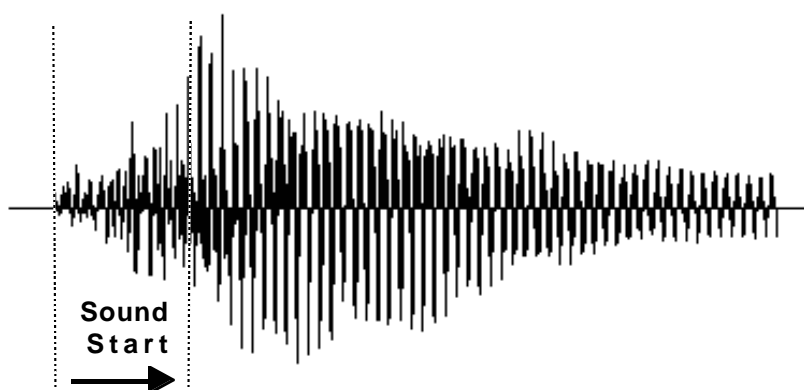
Delay varies the time between when a MIDI Note On message is received and the onset of a note. The delay time is adjustable from 0 to 13 seconds (000-127).

DELAY
pri:000 sec:000

- **Sound Start**

This function allows you to set where a sample begins playing when you hit a key. A setting of 000 plays a sound from the beginning, higher values move the sample start point toward the end of the sound.

SOUND START
pri:000 sec:000



The Sound Start parameter allows you to cut off the beginning of the sound. Higher values move the start point toward the end of the sound.

- **Reverse Sound**

When reverse sound is turned On, the instrument will be played backwards. When an instrument is reversed, any loops in the sound will be ignored, which means that the sound will not sustain indefinitely.

REVERSE SOUND
pri:0ff sec:0n

• ***Solo Mode***

Solo mode provides the playing action of a monophonic instrument. This mode does not allow you to play a chord. Two types of solo mode are provided: wind controller mode and synth mode. Both modes have single triggering and last-note priority. In either solo mode, if a new note is played while another is being held, the envelope generators will not retrigger. This allows a legato playing technique to be used. Wind controller mode, as its name suggests, provides more realistic effects when working with wind controllers.

Wind mode

The envelope generator attack always begins at the start of the attack phase.

Synth mode

The envelope generator attack begins at whatever point in the release phase the envelope is in when a new key is pressed.

SOLO MODE pri:Off sec:Wind

• ***Portamento Rate***

Portamento is a smooth gliding between notes instead of the normal instantaneous change in pitch when a new key is pressed. The portamento rate is the time it takes to glide to the new pitch. The larger the value, the slower the glide rate. The rate is adjustable from 1-127 or it can be turned Off. Portamento glides at a linear rate between notes and can be set separately for the primary and secondary layers. Portamento works both in and out of Solo Mode.

PORTAMENTO RATE pri:127 sec:Off

• ***Chorus***

Chorus “thickens” the sound by doubling the sound and then detuning it. The chorus amount is variable over a range of 1 to 15. When Chorus is on, the number of channels used by an instrument will be doubled.

CHORUS pri:Off sec:07

• **Crossfade Mode**

This function determines which of the following crossfade modes will be selected: Off, Crossfade, or Cross-Switch.

Off

When “Off” is selected, none of the crossfade parameters will have any effect.

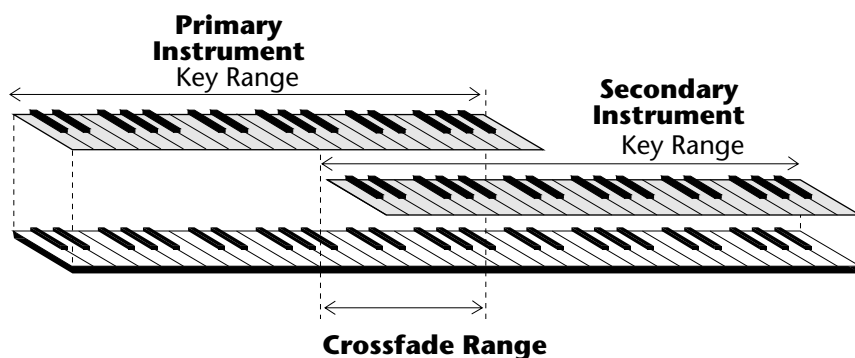
Crossfade

When “Xfade” is selected, a control input is used to fade between the primary and secondary. Any modulation source may be used as an input (velocity, wheel, etc.).

Cross-switch

When “Xswitch” is selected, the switched layer is selected if the input crosses a certain threshold or if a footswitch controlling cross-switch is activated. The switch occurs only at the start of the note; no further switching takes place while the key is held down.

If key position or velocity is routed to cross-switch, the threshold is the *switch point*. Realtime controllers do not have any effect when routed to cross-switch. For more information, see Cross-Switch Point on page 55.



By overlapping the primary and secondary instruments, you can crossfade or cross-switch between the layers.

••• For more information, see *Cross-switch Point* on page 55.

••• To use the keyboard for crossfade, set the *Crossfade Balance* to 64 and the *Key Center* to the split point.

••• A Crossfade Balance setting of 000 would be appropriate with a source such as a modulation wheel or footpedal, either of which can only change the value in a positive direction.

▼ Crossfade must be assigned to a modulation source in the Realtime or Velocity modulation screens.

• Crossfade Direction

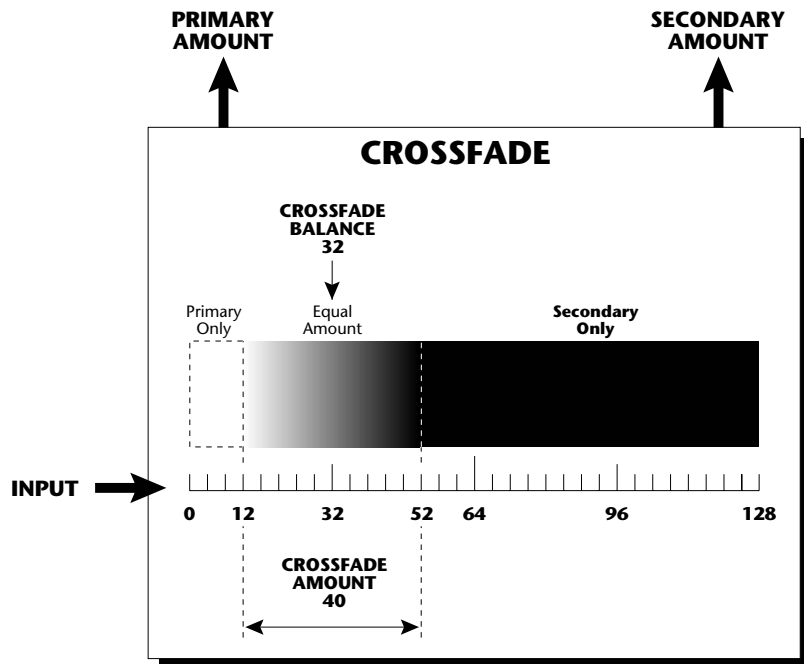
This function determines the polarity of the crossfade or cross-switch. The direction is either primary → secondary, or secondary → primary.

XFADE DIRECTION
Pri -> Sec

• Crossfade Balance

The crossfade balance parameter determines the initial balance between the primary and secondary layers. Higher values shift the balance to the secondary instrument. When the Crossfade Direction is Pri->Sec, Modulation subtracts from the primary volume and adds to the secondary volume. When crossfade modulation and balance equal 64, the two instruments are at equal volume.

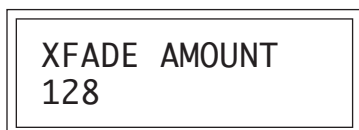
XFADE BALANCE
064



In the example above, crossfading between Primary and Secondary instruments will occur between the values of 12 and 52. Above and below these points, the output will be completely Primary or Secondary.

• **Crossfade Amount**

The crossfade amount parameter determines the range over which crossfading will occur. Crossfade amount is variable from 000 to 255. The larger the value, the more modulation will be required to effect a complete crossfade.



• **Cross-switch Point**

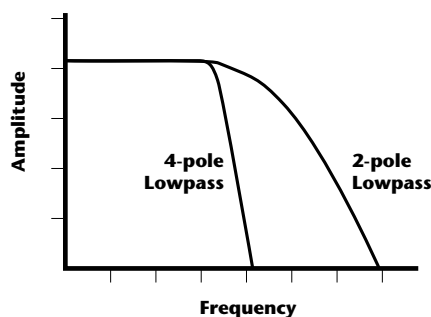
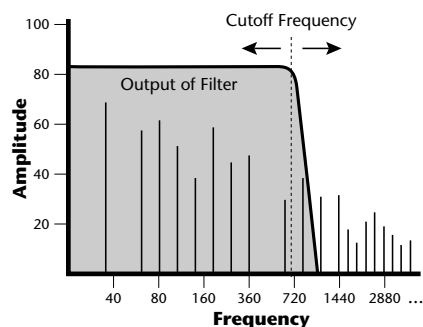
The cross-switch point determines the point at which cross-switching will occur when key position or velocity is controlling cross-switch.

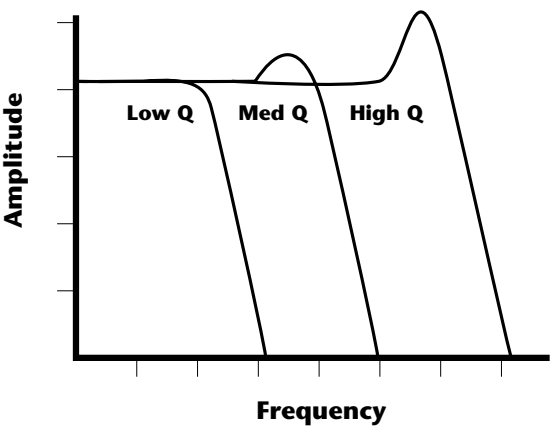


▼ To enable the cross-switch function, you must assign **Crossfade** to a modulation source in the Realtime or Velocity Modulation screen.

• **Primary Filter Type**

A lowpass filter allows only the low frequencies to pass (lowpass). A lowpass filter can be used to simulate many natural sounds since it is common for the high frequencies to die away as a sound decays. The filter for the primary instrument can be either a 2-pole lowpass filter, a 4-pole lowpass filter, or it can be turned Off. A 2-pole filter attenuates frequencies above the cutoff frequency at 12 dB per octave. A 4-pole filter attenuates frequencies above the cutoff at 24 dB per octave. (A 4-pole filter has a stronger filtering action.)





Q boosts the amplitude at the cutoff frequency. Using high Q values, it is possible to “tune in” certain frequencies of an instrument.

• **Primary Filter Cutoff & Q**

This function allows you to set the cutoff frequency (the frequency at which filtering begins) and the Q or resonance of the sound. Turning up the Q causes the frequencies near the cutoff to be emphasized.

FILTER	pri
Fc:255	Q:5

• **Secondary Filter Type**

The filter for the secondary instrument can be either a 2-pole lowpass filter, a 4-pole lowpass filter, or it can be turned Off. See Primary Filter Type.

FILTER TYPE	sec
4 Pole Lowpass	

• **Secondary Filter Cutoff & Q**

This is the same as the Primary Cutoff and Q for the secondary filter.

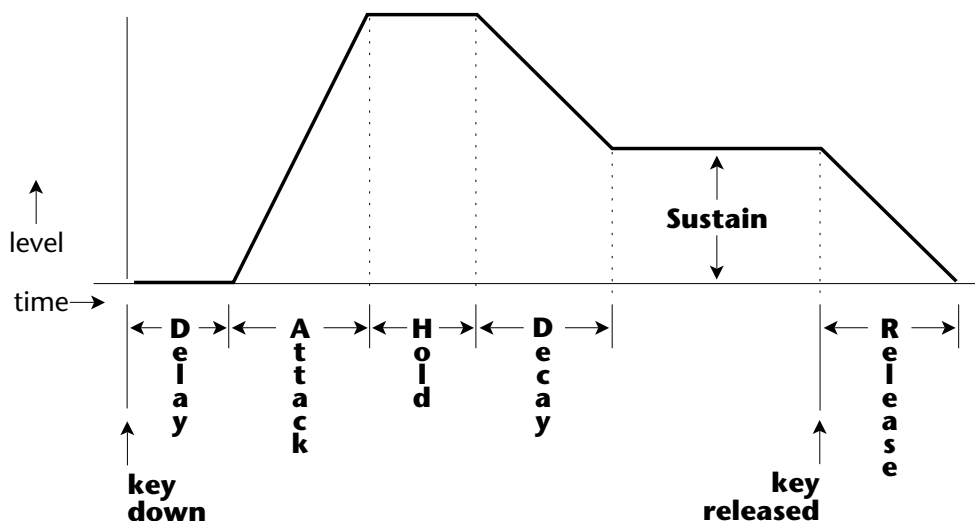
FILTER	sec
Fc:255	Q:5

• *Auxiliary Envelope*

This is a supplementary, utility envelope that can be routed to any realtime control destination including the lowpass filter. The auxiliary envelope parameters are: Envelope Amount, Delay, Attack Time, Hold Time, Decay Time, Sustain Level, and Release Time. The delay time is variable from 0 to 13 seconds (000-127). The envelope amount is variable from -128 to +127. Negative values will produce inverted envelopes.

```
AUX ENV  AMT DLY
          +127 000
```

```
A:  A  H  D  S  R
    00 00 00 99 20
```



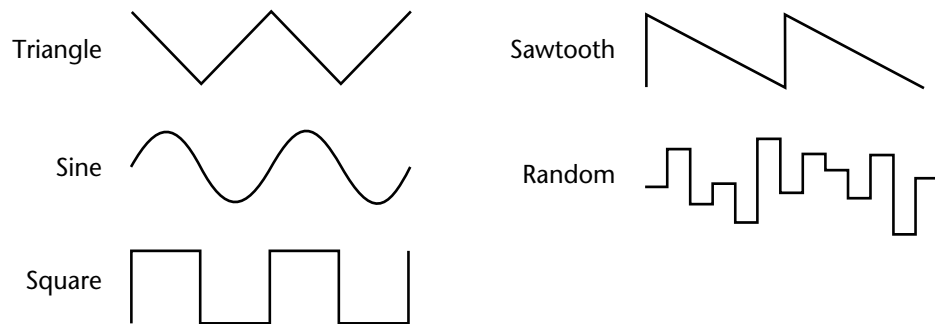
This diagram shows the six stages of the Auxiliary Envelope Generator.

• *LFO 1 - Shape & Amount*

This screen controls the waveshape and amount of Low Frequency Oscillator 1. The LFO can be used to produce vibrato (when routed to pitch), or tremolo (when routed to volume). The five LFO waveshapes are: Triangle, Sine, Square, Sawtooth, and Random. The amount can be varied from

-128 to +127. Negative values will produce inverted waveshapes.

LF01	SHAPE	AMT
	Rand	+127



• *LFO 1 - Rate, Delay & Variation*

This screen controls the rate, delay and variation of LFO 1.

LFO Rate

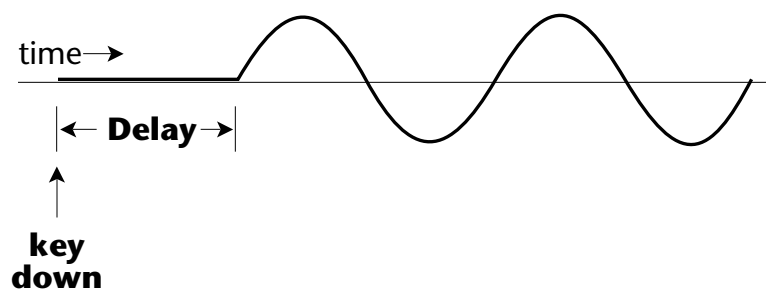
Varies the LFO speed from 0.052 Hz to 25 Hz (000-127).

LFO Delay

Sets the amount of time between hitting a key and the onset of modulation. This can be used to simulate an effect often used by acoustic instrument players, where the vibrato is brought in only after the initial note pitch has been established. The delay range is variable from 0 to 13 seconds (000-127).

LFO Variation

Sets the amount of random variation of an LFO each time a key is pressed. This function is useful for ensemble effects, where each note played has a slightly different modulation rate. The higher the number, the greater the note to note variation in LFO rate. LFO variation is variable from 000-127.



The LFO wave begins after the specified delay time has elapsed.

LF01	RT	DLY	VAR
	000	000	000

- ***LFO 2 - Shape & Amount***

LFO 2 is functionally identical to LFO 1.

- ***LFO 2 - Rate, Delay & Variation***

LFO 2 is functionally identical to LFO 1.

Keyboard

Modulation Sources

Key Number, Key Velocity

Destinations

Off,
Pitch, Primary Pitch,
Secondary Pitch,
Filter Fc, Primary Filter Fc,
Secondary Filter Fc,
Filter Q, Primary Filter Q,
Secondary Filter Q,
Volume, Primary Volume,
Secondary Volume,
Attack, Primary Attack,
Secondary Attack,
Decay, Primary Decay,
Secondary Decay,
Release, Primary Release,
Secondary Release,
Crossfade,
LFO 1 Amount, LFO 1 Rate,
LFO 2 Amount, LFO 2 Rate,
Auxiliary Envelope Amount,
Auxiliary Envelope Attack,
Auxiliary Envelope Decay,
Auxiliary Envelope Release,
Sample Start,
Primary Sample Start,
Secondary Sample Start,
Pan, Primary Pan,
Secondary Pan,
Tone, Primary Tone,
Secondary Tone,
Portamento Rate,
Primary Portamento Rate,
Secondary Portamento Rate

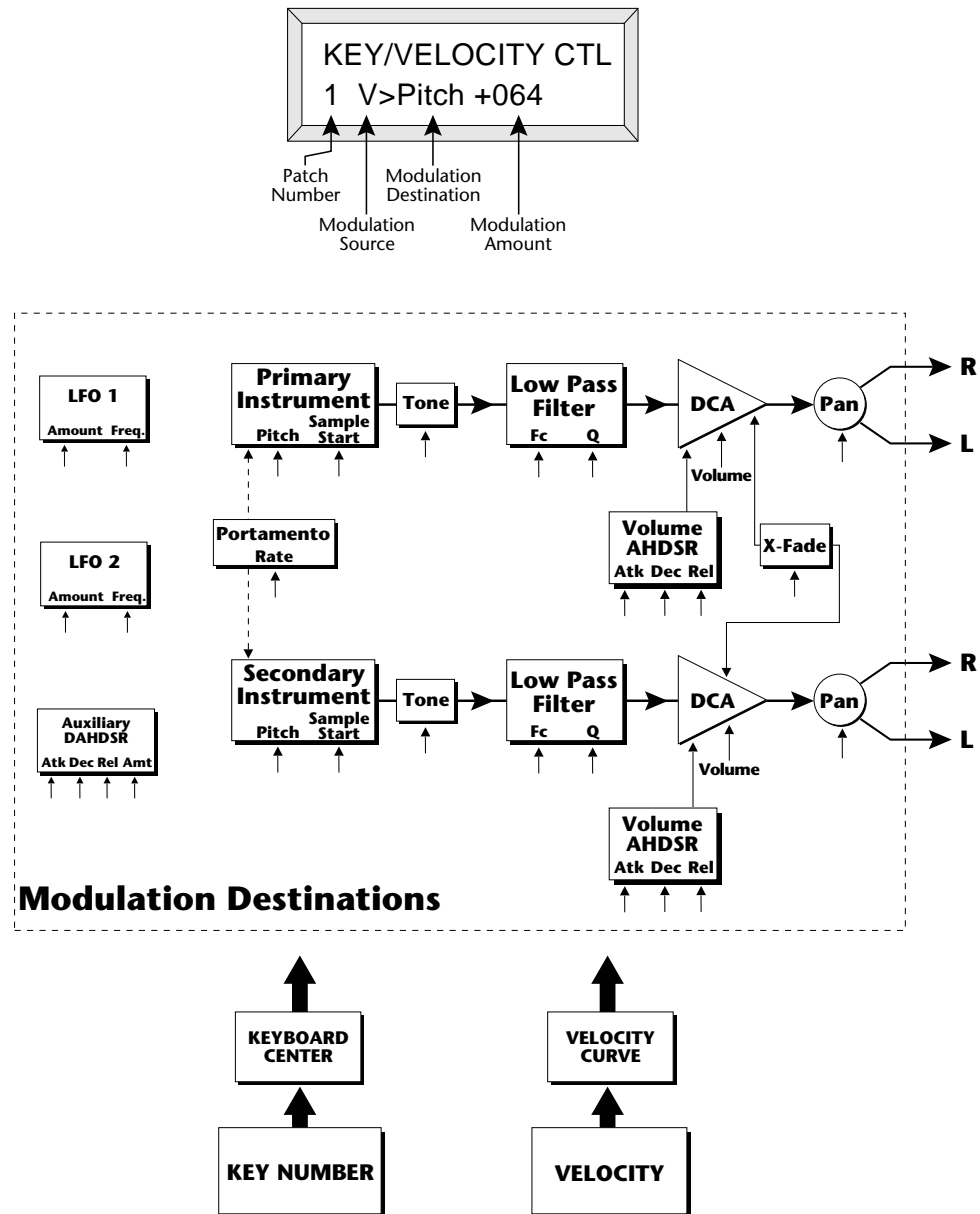
When Modulating Envelope Attack, Decay or Release Times:

Positive amounts of modulation **increase** the time.

Negative amounts of modulation **decrease** the time.

• Keyboard & Velocity Modulation Control

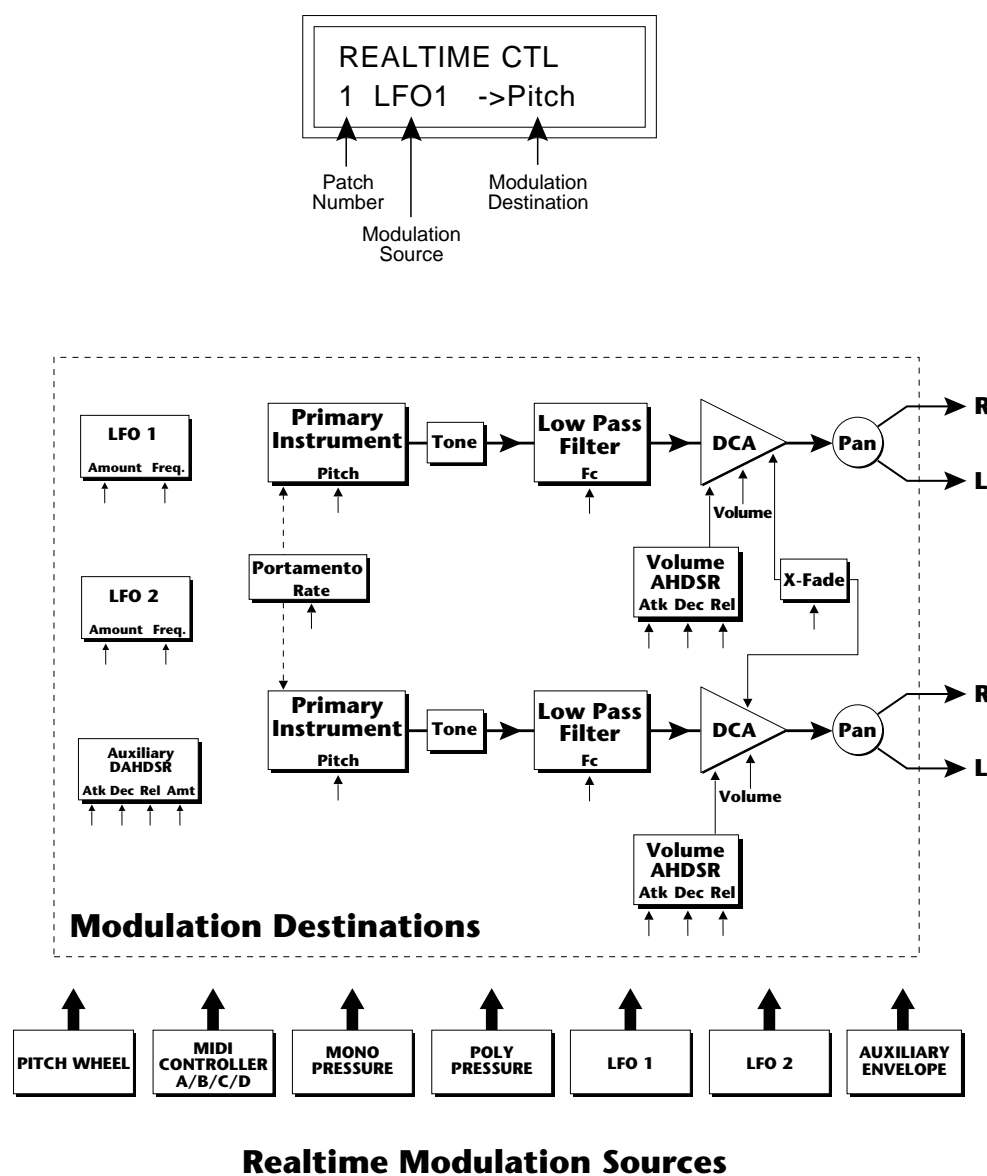
These functions allow you to route keyboard and velocity information to any of the modulation destinations. Up to 6 simultaneous paths or “patches” may be programmed. For each modulation patch, there is a source (keyboard or velocity), and a corresponding amount parameter which is variable from -128 to +127. **Place the cursor under the appropriate parameter and change the patch number, modulation source, modulation destination, or the amount using the data entry control.** If a parameter is not labeled either primary or secondary, it affects both.



Keyboard and Velocity Modulation Sources

• Realtime Modulation Control

These functions allow you to route realtime controllers to any of the modulation destinations on except Tone, Sample Start, Q and Pan. Up to 8 simultaneous patches may be programmed. For each modulation patch, there is a source and a destination parameter. **Place the cursor under the appropriate parameter and change the patch number, modulation source or modulation destination using the data entry control.** If a parameter is not labeled either primary or secondary, it affects both.



Realtime Modulation Sources

Pitch Wheel,
MIDI Control A,
MIDI Control B,
MIDI Control C,
MIDI Control D,
Mono Pressure,
Polyphonic Pressure,
LFO 1, LFO 2,
Auxiliary Envelope

Destinations

Off,
Pitch, Primary Pitch,
Secondary Pitch,
Filter Fc, Primary Filter Fc,
Secondary Filter Fc,
Volume, Primary Volume,
Secondary Volume,
Attack, Primary Attack,
Secondary Attack,
Decay, Primary Decay,
Secondary Decay,
Release, Primary Release,
Secondary Release,
Crossfade,
LFO 1 Amount, LFO 1 Rate,
LFO 2 Amount, LFO 2 Rate,
Auxiliary Envelope Amount,
Auxiliary Envelope Attack,
Auxiliary Envelope Decay,
Auxiliary Envelope Release,
Portamento Rate,
Primary Portamento Rate,
Secondary Portamento Rate

• **Footswitch Control**

This function allows you route the 3 footswitch controllers (1, 2 or 3) to any of the footswitch destinations. The footswitches can be routed to switch: Sustain (pri/sec/both), alternate volume envelope (pri/sec/both), alternate volume release (pri/sec/both), or cross-switch between the primary and secondary instruments.

FOOTSWITCH CTL
1 -> Sustain

• **Pitch Bend Range**

This function allows you to specify the pitch wheel range for the current preset or it can be set to be controlled globally (set in the Master menu). Pitch bend range is only applied when the pitch wheel is used to control pitch.

PITCH BEND RANGE
+- 12 semitones

• **Pressure Amount**

This function allows you to specify an amount parameter for mono or poly keyboard pressure data. The pressure amount is variable from -128 to +127.

PRESSURE AMOUNT
+127

• **MIDI Controller Amount**

This function allows you to specify an amount parameter (variable from -128 to +127) for each of the MIDI controllers.

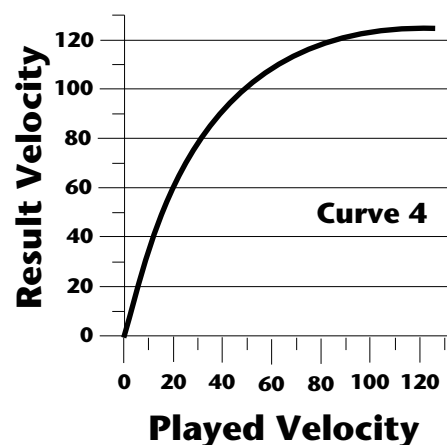
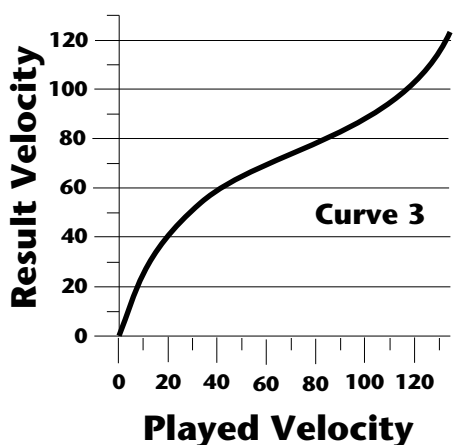
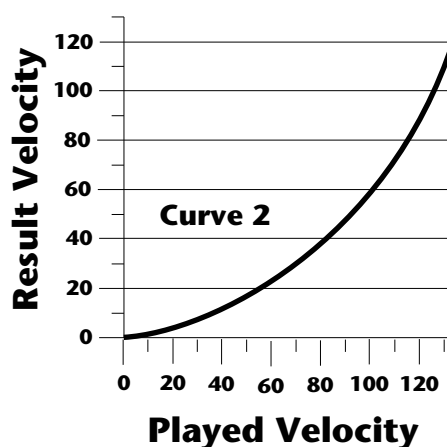
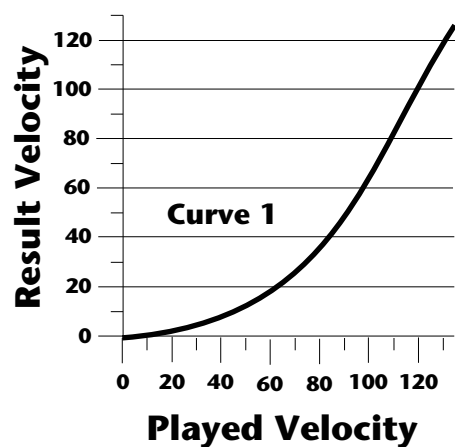
CONTROLLER AMT
A:+127 B:-090

CONTROLLER AMT
C:+030 D:+060

- **Velocity Curve**

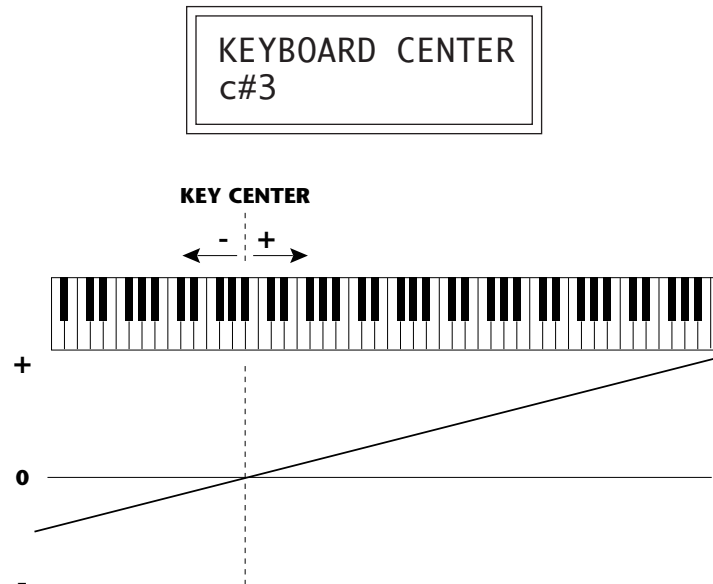
Incoming velocity data can be modified by a velocity curve in order to provide different types of dynamics in response to your playing or better adapt to the MIDI controller. This function allows you to select one of the four velocity curves or leave the velocity data unaltered (Off). In addition, the velocity curve can be set to “Global”, which means that the global velocity curve (programmed in the Master menu) is used.

VELOCITY CURVE
Global



• **Keyboard Center**

The Keyboard Center parameter establishes a reference point for keyboard modulation. Keys above this point will have a positive value and keys below it will be negative. The keyboard center can be set to any key within the range A-1 to C7.



• **Keyboard Tuning**

In addition to the standard equally divided octave tuning, Vintage Keys contains three other types of scale tuning and one user-definable tuning. This function selects which tuning will be used in the current preset. The choices of keyboard tunings are:

Equal tuning (12 tone equal temperament)

Standard Western tuning.

Just C tuning (just intonation)

Based on small interval ratios. Sweet and pure, non-beating intervals.

Vallotti tuning (Vallotti & Young non-equal temperament)

Similar to 12 tone equal temperament. For a given scale, each key has a different character

19 Tone tuning (19 tone equal temperament)

19 notes per octave. Difficult to play, but works well with a sequencer.

Gamelan (Javanese) tuning (5 tone Slendro and 7 tone Pelog)

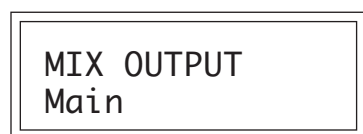
Pelog-white keys, Slendro-black keys. Exotic tunings of Gamelan flavor.

User tuning

Defined in the Master menu.

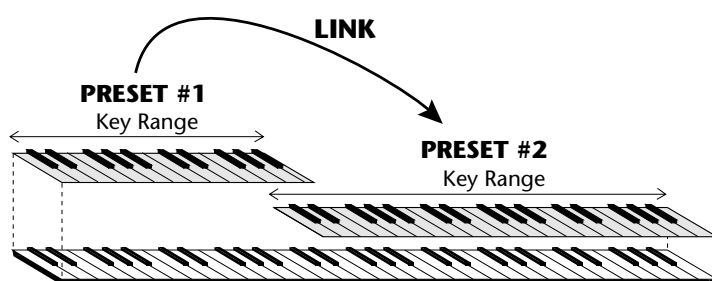
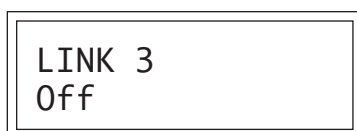
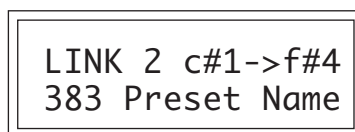
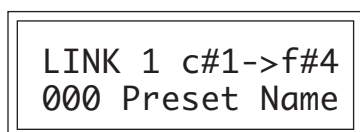
• *Mix Output*

This function allows you to direct the channels used by a particular preset to appear at one of these three stereo outputs (Main, Sub 1, Sub 2)

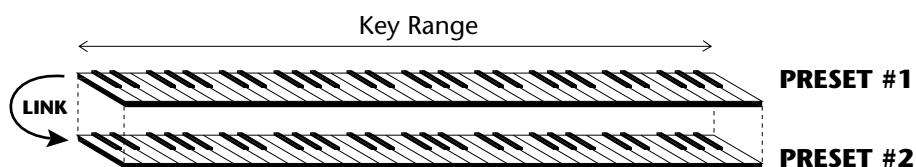


• *Preset Links*

Presets may be linked to other presets in order to create layering or keyboard splits. The current preset can be linked with up to three other presets. Each linked preset can be assigned to a specific range in order to easily create keyboard splits. The modulation parameters specified in each preset remain in effect for each preset in the link.



CREATING A SPLIT KEYBOARD



LAYERING TWO PRESETS

- ***Save Preset***

Changes made to a preset in the Edit menu are not made permanent until the preset is *Saved*. To save a preset, move the cursor to the bottom line and select the location for the new preset with the data entry control. The Enter LED will be flashing. Pressing the Enter switch will confirm the operation. Any user preset (000-255) may be selected using the data entry control. Writing to a user preset erases the existing preset in that location. Make sure that the destination preset does not contain information that you wanted to keep.

SAVE PRESET to
064 Preset Name

To Save a Preset

1. Select the new location.
2. Press Enter.