HAMMOND

Sk PRO

PIANO / ENSEMBLE
VOICE
SECTIONS

PIANO / ENSEMBLE Voice Sections

The SK PRO, in addition to being able to duplicate the sound of a vintage Hammond Organ as well as other organ sounds, has an inbuilt library of 163 high-quality waveforms representing various instruments (Piano, Guitar, Strings, Trumpet, Saxophone, Drums, etc.) These waveforms in turn are incorporated into Patches along with Parameters such as Attack, Filter, etc., which are applied to the waveforms to create different instrumental effects.

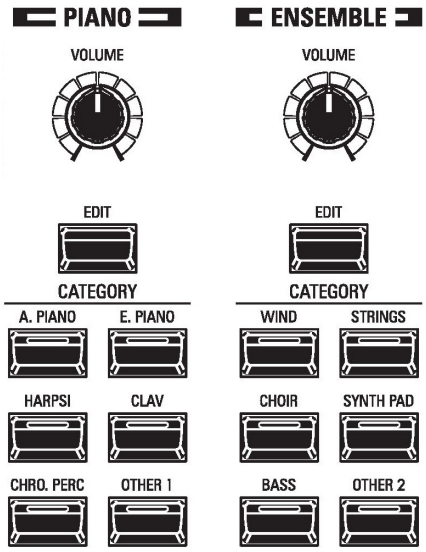
There are 300 Factory ("F") Patches available representing a wide variety of different instruments and effects, with provision for 400 User ("U") Patches. "F" Patches are permanently stored in memory and cannot be overwritten. "U" Patches can be created, Recorded, edited and re-Recorded at any time.

Both the Factory and User Patches can be played from either the PIANO or ENSEMBLE Section.

NOTE: When you finish editing a custom Patch, you will be shown where you can save your custom Patch - a "U" number will be shown in the display during the RECORD process as well as a Voice Category. This will be explained fully later on in this chapter of the Guide.

◆ PIANO / ENSEMBLE Controls

The PIANO / ENSEMBLE Controls are located on the left side of the Information Center Display.



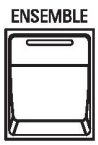
Notice the two control sections are identical except for the Voice Categories. The PIANO Section is set up for easy access to Piano and other percussive keyboard or chromatic instruments while the ENSEMBLE Section allows you to quickly register instrumental voices such as Trumpet, Saxophone, Violin, Orchestral Strings, Choir, etc. However, as explained above, all of the Factory or User Patches can be played from either Section - the PIANO Section can play Strings if desired, the ENSEMBLE Section can play Electric Piano if desired, and so on. This is in order to allow maximum registration flexibility and versatility.

Later parts of this chapter will explain this in more detail.

♦ PIANO ALLOCATE button

Use this button to turn the PIANO Section "ON" or "OFF." When "ON" an LED will light.

ENSEMBLE ALLOCATE button



Use this button to turn the ENSEMBLE Section "ON" or "OFF." When "ON" an LED will light.

♦ PIANO CATEGORY buttons

The PIANO CATEGORY buttons allow you to access various categories of voices. The categories represent voices which have been arranged into groups combining instruments of similar characteristics to make voice selection easier.

A.PIANO

This category contains Acoustic Pianos, Electric Grands, etc.

E.PIANO

This category contains Electric Pianos.

HARPSI

This category contains other keyboard instruments such as Harpsichords, etc.

CLAV

This category contains sounds similar to those produced by an electrically-amplified clavichord.

CHRO. PERC

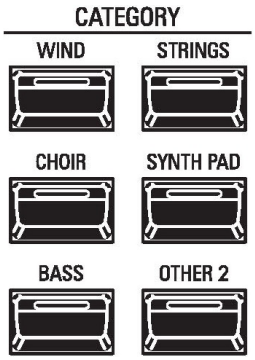
This category contains chromatic percussion instruments such as Xylophone, Marimba, Glockenspiel, etc.

OTHER 1

This category contains Voice Categories such as Guitar, Wind, Strings, etc.

These voices can be used either in combination with the other Voice Sections or by themselves.

♦ ENSEMBLE CATEGORY buttons



The ENSEMBLE CATEGORY buttons allow you to access various categories of voices. The categories represent voices which have been arranged into groups combining instruments of similar characteristics to make voice selection easier.

WIND

This category contains Wind instruments such as Trumpets, Saxes, etc.

STRINGS

This category contains String instruments such as Violin, Orchestral Strings, etc.

CHOIR

This category contains Choir and Vocal sounds..

SYNTH PAD

This category contains Synth voices suitable for chordal accompaniment.

BASS

This category contains Bass voices.

OTHER 2

This category contains other Voice Categories such as Acoustic Pianos, Chromatic Percussions, etc.

These voices can be used either in combination with the other Voice Sections or by themselves.

There is a total of 163 Wave tables available for creating Piano / Ensemble Patches. These are listed on the next page and also in the APPENDIX of this Guide.

♦ PIANO / ENSEMBLE WAVEFORM List

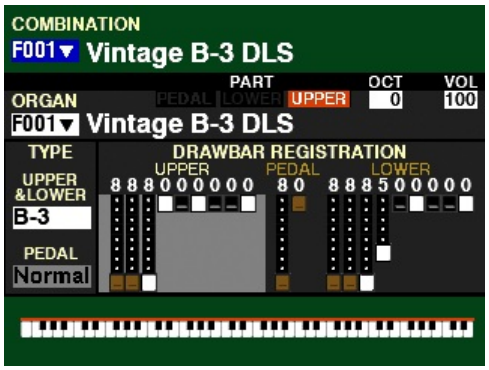
Category		Name	
1	A. Piano	1	GrandPf Yam CF3
		2	GrandPf Stw D St
		3	GndPf StwDSt Rel
		4	UpUf Regular
		5	UpUf Honky
		6	Electric Grand
		7	Toy Pf Kaw
		8	Toy Pf Kaw Rel
		9	Toy Pf Sch
		10	Toy Pf Sch Rel
		11	Pop Piano CF
2	E. Piano	1	EP Tine Mk1 On
		2	EP Tine Mk1 Off
		3	EP Tine Mk2 On
		4	EP Reed 200A
		5	E.Piano FM
		6	E.Piano FM Cho
		7	EP Tine Mk1 Soft
		8	EP Reed Soft
3	Harpsichord	1	Hpsichrd Back
		2	Hpsichrd Front
		3	Hpsichrd Buff
		4	Hpsi Off
4	Clav	1	Clav AC
		2	Clav AD
		3	Clav BC
		4	Clav BD
		5	Clav Off
5	Chro. Perc.	1	Xylophone YX
		2	Marimba YM Norm
		3	Marimba YM Trem
		4	Glockenspiel
		5	Glock. X-66
		6	Vibraphone YV
		7	Tublar Bells
		8	Tub Bells FM
		9	Tub Bells TW
		10	Church Bell
		11	Wine Glass
		12	Tonechimes
		13	Hand Bells
		14	Syn. Celesta
		15	Digi Bell 1
		16	Digi Bell 2
		17	Crystal
		18	Music Box
6	Guitar	1	Nylon-Str Gt.
		2	Steel-Str Gt.
		3	12Str Gt. A
		4	12Str Gt. B
		5	Jazz Gt.
		6	Pedal Steel Gt
		7	Orch Harp
		8	OH Whole Tone C
		9	OH Whole Tone F
		10	Pizzicato Str.
7	Ethnic	1	Dulcimer
		2	Sitar
		3	Tanpura
		4	Banjo
		5	Soh
		6	Pan Pipes
8	SFX	1	Sine
		2	White Noise
		3	Rain
		4	TelephoneRingSus
		5	TelephoneRingRel
		6	E. Driver Sus
		7	E. Driver Rel
9	Wind	1	Trumpet Str
		2	Trumpet Vib
		3	Trumpet Muted
		4	Tp. Fall Sus
		5	Tp. Fall Atk
		6	Tp. Grs Up Sus
		7	Trumpet Sect.
		8	Trombone Str
		9	Trombone Muted
		10	Tb. Fall Sus
		11	Tb. Fall Atk
		12	Flute Str
		13	Flute Vib
		14	Flute Atk
		15	Alto Sax Str
		16	Alto Sax Vib
		17	Tenor Sax Str
		18	Tenor Sax Vib
		19	Bari Sax Str
		20	Recorder
		21	Flute Taped
		22	M12 Box Brass 1
		23	M12 Box Brass 2
		24	M12 Brazz 1
		25	M12 Brazz 2
		26	M12 Horn Ens 1
		27	M12 Horn Ens 2
10	Strings	1	Str. Legato
		2	Str. Section
		3	Synth Str. Mlw
		4	Synth Str. Bri
		5	Sol. Str.
		6	Violins Taped
		7	Violin
		8	Glass Harp St
		9	Glass Harp Mono
11	Choir	1	Choir Aah CM
		2	Choir Doo CM
		3	Vocal CM Tn/S
		4	Choir Taped
12	Synth Pad	1	PWM
		2	EPFM Pad
		3	WG Pad Bright
		4	WG Pad Mellow
		5	Noise Choir
13	Bass	1	Acoustic Bs On
		2	Acoustic Bs Off
		3	Finger Bs Jz
		4	Finger Bs Pr
		5	Pick Bs Jz
		6	Pick Bs Pr
		7	Slap Bs Jz
		8	FM Bass
		9	Timpani Single
		10	Timpani Roll
		11	Timpani Gliss
14	Synth Lead	1	Square
		2	Pulse 66%
		3	Pulse 75%
		4	Pulse 80%
		5	Sawtooth
		6	Kinura
		7	Lucy
		8	Even Bars
		9	OPZ LFO
		10	Osc. Sync U/D
		11	Osc. Sync D
15	Free Reed	1	Accordion
		2	Acdn SubOct
		3	Reed Organ
		4	Melodion B-24
		5	Melodion M-37
		6	Melodion M-37Oct
		7	Melodion PRO-44
		8	Melodion S-32
		9	Harm Single
		10	Harm Chro Norm
		11	Harm Chro Vib
		12	Harm BsChro
		13	Harm Bass Stacc
		14	Harm FM
16	Percussion	1	Ride Cymbal
		2	Crash Cymbal
		3	Crash Cymbal Lp
		4	Wind Chime
		5	Wind Chime Lp
		6	Tone Tang
		7	Jazz BD
		8	Jazz SD
		9	Jazz SD&BD Rnd
		10	Brush SD Swl On
		11	Brush SD Swl Off
		12	Brsh SD Tap/Slap
		13	Brush SD&BD Rnd

◆ Selecting a Voice

♦ PIANO Voice Section

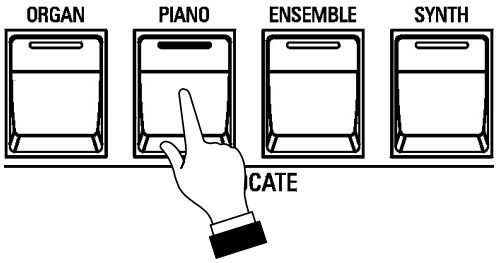
TRY THIS:

1. Make sure Combination F001 is displaying (see below).



2. Make sure all four ALLOCATE buttons are “OFF” (LED not lit).

3. Press the PIANO button in the ALLOCATE Section. The red LED will light.



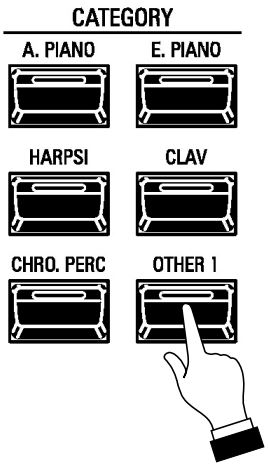
The Information Center Display should now look similar to this:

4. Play some notes. You will now hear the sound of a concert grand piano.

5. Now press the E.PIANO button. The Information Center Display will show the following:

5. Play some notes. You will now hear the sound of an electric piano.

6. Now press the OTHER button in the PIANO CATEGORY Group.



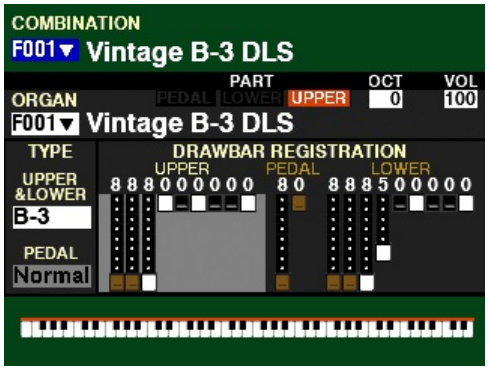
The Information Center Display should now look similar to this:

7. Play some notes. You will now hear the sound of a nylon-string guitar.

♦ ENSEMBLE Voice Section

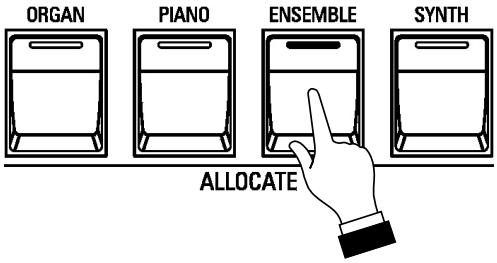
TRY THIS:

1. Make sure Combination F001 is displaying (see below).



2. Make sure all four ALLOCATE buttons are "OFF" (LED not lit).

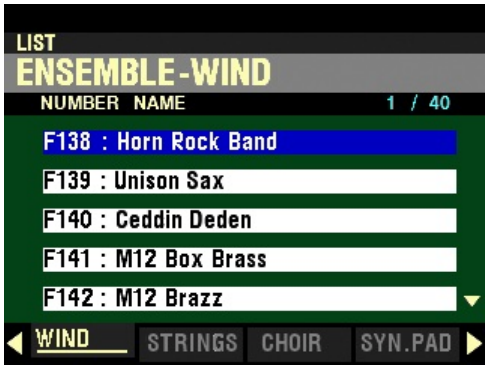
3. Press the ENSEMBLE button in the ALLOCATE Section. The red LED will light.



The Information Center Display should now look similar to this:

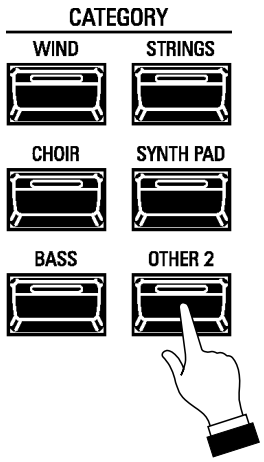
4. Play some notes. You will now hear the sound of a string section.

5. Now press the WIND button. The Information Center Display will show the following:



5. Play some notes. You will now hear the sound of a brass section.

6. Now press the OTHER 2 button in the ENSEMBLE CATEGORY Group.



The Information Center Display should now look similar to this:

7. Play some notes. You will now hear the sound of a synthesizer.

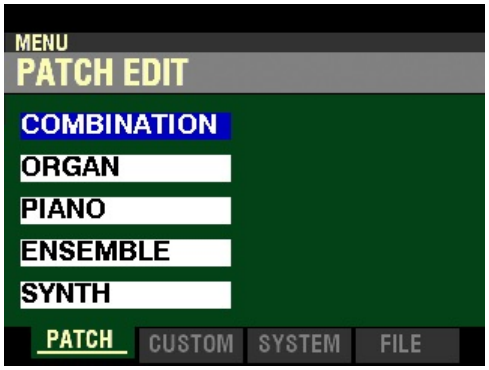
◆ PIANO / ENSEMBLE FUNCTION Modes

The PIANO and ENSEMBLE FUNCTION Modes allow you to modify the characteristics of the PIANO or ENSEMBLE Voices according to your preference.

NOTE: The PIANO and ENSEMBLE PATCH EDIT FUNCTION Modes are identical. The following pages of this Guide will refer to the PIANO PATCH EDIT Modes to explain both PIANO and ENSEMBLE.

♦ Accessing the PIANO / ENSEMBLE PATCH EDIT FUNCTION Mode using the MENU/EXIT button:

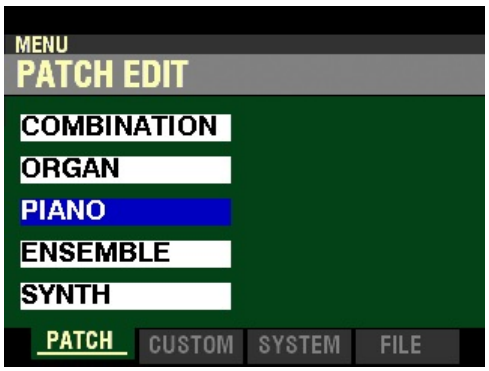
1. From any of the PLAY Mode screens, press the MENU/EXIT button once. The Information Center Display should now look like this:



The word "COMBINATION" should be highlighted.

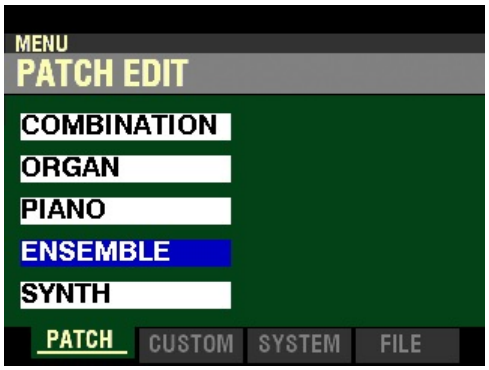
PIANO Voice Section:

2. Press the DIRECTION "▼" button two times. The word "PIANO" should be highlighted.



ENSEMBLE Voice Section:

2. Press the DIRECTION "▼" button three times. The word "ENSEMBLE" should be highlighted.



3. Press the ENTER button. The Information Center Display should now look similar to this:

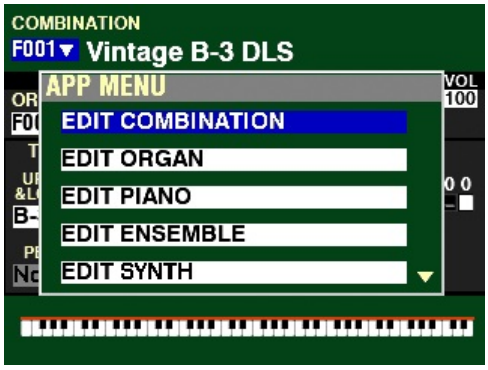
NOTE: The PIANO display is shown above, which will display the currently selected PIANO Patch on the top line of the display. If ENSEMBLE is selected, the top line of the display will show the currently selected ENSEMBLE Patch. The currently selected Combination Number will display to the left of the Patch Name.

♦ Accessing the PIANO / ENSEMBLE PATCH EDIT FUNCTION Mode using the Shortcut:

Press the EDIT button in either the PIANO or ENSEMBLE Voice Section, depending on which Voice you want to edit. You will see the screen shown at the bottom of the previous page.

♦ Accessing the PIANO / ENSEMBLE PATCH EDIT FUNCTION via the APP MENU:

1. From any of the PLAY Mode screens, Press and Hold the MANUAL "▤" button. The Information Center Display should now look like this:

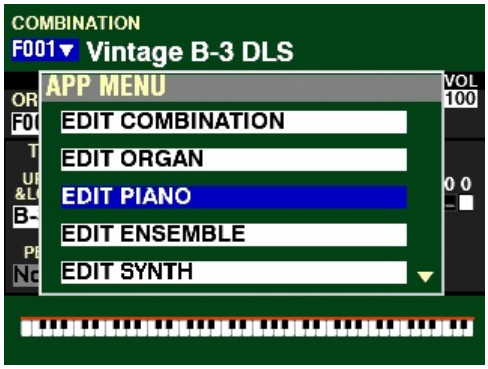


The box "EDIT COMBINATION" should be highlighted.

NOTE: The APP MENU may not display all Voice Sections, depending on which Voice Sections are active for the selected Combination.

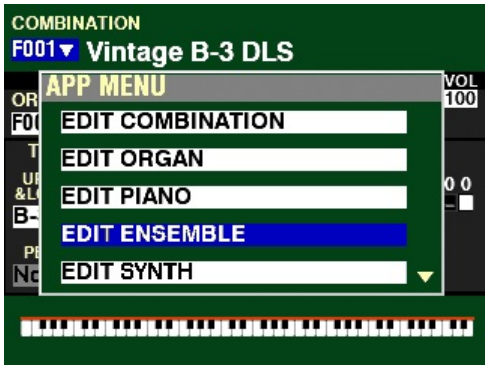
PIANO Voice Section:

2. Press the DIRECTION "▼" button <u>two</u> times. The box "EDIT PIANO" should be highlighted.



ENSEMBLE Voice Section:

2. Press the DIRECTION "▼" button <u>three</u> times. The box "EDIT ENSEMBLE" should be highlighted.



2. Press the ENTER button. The Information Center Display should now look like this:

You are now in the PATCH EDIT FUNCTION Mode. You may now use the DIRECTION and PAGE buttons in conjunction with the VALUE knob to make various changes to the Patches. These changes are explained starting below.

NOTE: The Parameters for the PIANO and ENSEMBLE Parameters are identical: therefore, for the explanation of each Parameter the PIANO Patch will be shown at the top of the screen.

♦ GENERAL Parameters

LOUDNESS

VOLUME

This Parameter allows you to adjust the overall volume of the selected Patch. You can select from 0 (no Volume) to 127 (maximum Volume).

Turn the VALUE knob the right to increase the Volume.

Turn the VALUE knob to the left to decrease the Volume.

NOTE: The **Loudness** Parameter serves to set the maximum volume of the selected ORGAN Patch and works independently of the PIANO and ENSEMBLE VOLUME knobs. The overall volume of the PIANO or ENSEMBLE Voice Section is controlled by the VOLUME knob for each Voice Section. The MASTER VOLUME knob and/or a connected Expression Pedal will control the volume of the entire instrument.

From the screen shown on the previous page, press the DIRECTION "▼" button once.

The box to the right of "RANGE UP" should be highlighted.

PITCH BEND

RANGE UP

This Parameter allows you to adjust the number of semitones the Pitch Bend Wheel will bend the pitch of the selected Patch up. You can select from 1 to 12 semitones, 12 semitones being a full octave.

Turn the VALUE knob to the right to increase the Range.

Turn the VALUE knob to the left to decrease the Range.

From the above screen, press the DIRECTION "▼" button once.

The box to the right of "RANGE DOWN" should be highlighted.

RANGE DOWN

This Parameter allows you to adjust the number of semitones the Pitch Bend Wheel will bend the pitch of the selected Patch down. You can select from 1 to 24 semitones, 24 semitones being two full octaves.

Turn the VALUE knob to the right to increase the Range.

Turn the VALUE knob to the left to decrease the Range.

From the screen shown at the bottom of the previous page, use the DIRECTION buttons to move the cursor to the right side of the display so the Information Center Display looks like this:

The box to the right of "PORTAMENTO" should be highlighted.

PORTAMENTO

ON / OFF

This Parameter allows you to turn the Portamento effect "ON" or "OFF" for the selected Patch.

Turn the VALUE knob to turn Portamento "ON" or "OFF."

NOTE: **Portamento** refers to a smooth transition or "sliding" from one note to another.

NOTE: The PORTAMENTO button to the left of the Keyboard must be "ON" (orange LED lit) to hear the Portamento effect.

From the screen shown on the previous page, press the DIRECTION "▼" button once.

The box to the right of "MODE" should be highlighted.

MODE

This Parameter allows you to adjust how to control the Portamento effect from the keyboard.

The data chart below shows the options you may select.

PORTAMENTO MODE	
Parameter	**Description**
Every	The Portamento will be heard with every keypress.
Legato	The Portamento will be heard only when keys are played "legato" (a key is depressed while another key is held).

Turn the VALUE knob to make your selection.

From the above screen, press the DIRECTION "▼" button once.

The box to the right of "RATE" should be highlighted.

RATE

This Parameter allows you to adjust the rate at which the pitch rises or falls when Portamento is "ON." You can select from 0 (the pitch will rise or fall instantaneously) to 127 (the pitch rises and falls at the slowest rate). Intermediate rates will cause the pitch to rise or fall at rates between 0 and 127.

Turn the VALUE knob to the right to increase the Portamento Rate.

Turn the VALUE knob to the left to decrease the Portamento Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.

The box to the right of "MODE" below "MONO/POLY" should be highlighted.

MONO/POLY

MODE

This Parameter allows you to select whether the selected Patch will play single notes (Mono) or multiple notes (Poly) when multiple notes are played on the keyboard.

The data chart below shows the options you may select.

MONO/POLY MODE	
Parameter	**Description**
Poly	"Polyphonic" - if more than one key is depressed, all notes will sound)
Mono	"Monophonic" - if more than one key is depressed, only one note will sound)
Rel.C	"Release Cancel" - More than one note can be played; however, the last note released will be erased by the next note played.

Turn the VALUE knob to make your selection.

From the screen shown on the previous page, press the DIRECTION "▼" button once.

The box to the right of "MONO PRIOR." should be highlighted.

MONO PRIORITY

This Parameter allows you to adjust which note will sound on the selected Patch if more than one note is played in MONO Mode.

The data chart below shows the options you may select.

MONO PRIORITY	
Parameter	**Description**
Auto	If the selected Patch is used with other Voice Sections, the highest note played will sound. If the selected Patch is used alone, the last played note will sound.
Last	The last played note will sound.
Lowest	The lowest note played will sound.
Highest	The highest note played will sound.

Turn the VALUE knob to make your selection.

◆ SPECIAL NOTE - ProChord™

When you scroll through the Extra Voices in each Voice Category, you will see Pcd or PrChd in several of the Voice Names in the PIANO / ENSEMBLE Voice Sections.

Pcd or PrChd are abbreviations for ProChord.™ The next paragraphs will explain in detail how to use the ProChord™ feature.

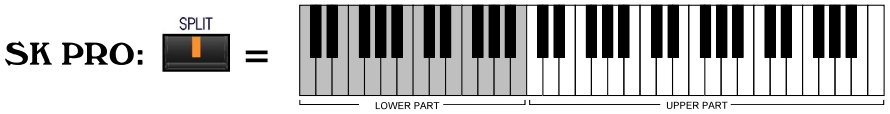
♦ What Is "ProChord™" - PLEASE READ

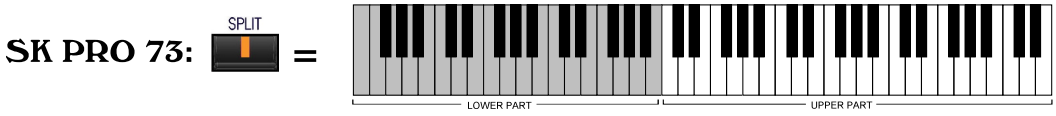
ProChord™ is a unique feature of certain Hammond Organ models, including the SK PRO, which allows you to play a single-note melody augmented by complex harmonies. The melody is played on the UPPER Part and the harmonies are applied to the melody in response to chords played by the left hand on the LOWER Part. ProChord is a sophisticated tool that can be used to enrich a performance, or provide an advanced edge to any style of music.

ProChord works like this: When notes or chords are played on a LOWER Part and a note is played on an UPPER Part, the note represented by the key played on the UPPER Part is heard along with a scored harmony pattern which sounds according to the Chord Root and Chord Type selected by the notes played on the LOWER Part. The Chord Root is the letter name of the chord (F, A, B♭, etc) while the Chord Type is the denomination of the chord (Major, Minor, Augmented, etc.).

The ProChord feature on the SK PRO will recognize 26 different Chord Types in response to notes played on the LOWER Part. The following page will show how to play the five basic Chord Types using a minimum number of notes.

NOTE: A note or chord must be played on the LOWER Part in order for the ProChord harmony to sound when notes are played on the UPPER Part.



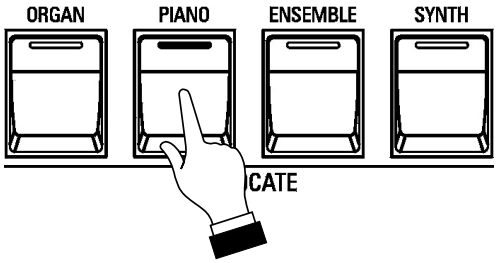


♦ Using ProChord

TRY THIS:

1. Make sure all the ALLOCATE buttons are “OFF” (LED not lit) and that “F001" is showing at the very top of the display.

2. Press the PIANO ALLOCATE button “ON.”



3. Press the DIRECTION “▼” button once. The Voice Name should be highlighted.

4. Turn the VALUE knob until F148 shows as the Patch Number.

5. Turn the SPLIT button “ON.”

6. Play a chord on the LOWER Part and hold the keys down. You will not hear any sound.

7. While holding the keys down, play a single-note melody on the UPPER Part. You will hear the melody note plus a complex harmony pattern underneath the melody based on the chord you play. The Harmony will always be appropriate no matter what chord or melody you play.

8. Play a chord progression of your choice, and continue to play a melody on the UPPER Part. You will hear the harmony change in response to the chords you are playing on the LOWER Part.

The instructions on the previous page apply to all of the PIANO / ENSEMBLE Patches with ProChord. Each ProChord Patch will consist of a melody note plus a different harmony pattern. For example, the BigBandSax Patch has a 5-part open-harmony pattern, while the HP OldTime Patch has a 4-part closed harmony pattern. There are 17 harmony patterns in all, including also 2- and 3-part patterns.

Feel free to experiment with the different ProChord choices; however, remember:

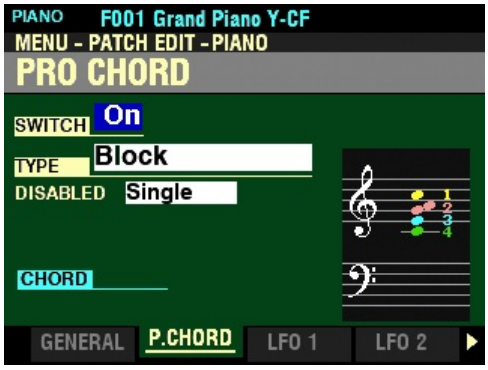
1. The harmony will ONLY sound if SPLIT is enabled and notes are pressed and held on the LOWER Part while the melody is played.

2. Play ONLY single-note melodies on the UPPER Part.

NOTE: Although several PIANO / ENSEMBLE Patches utilize ProChord (indicated by **Pcd** or **PrChd** in the Patch Name), ProChord can be added to any PIANO or ENSEMBLE Patch via the FUNCTION Mode Parameters. This is described starting on page 218.

NOTE: When a ProChord Patch is selected, the UPPER Part becomes monophonic - if a chord is played with the right hand only one key will play. Therefore, when using ProChord play a single-note melody.

From the screen shown on page 213, press the PAGE "▶" button once. The PRO CHORD Page should now display.



The box to the right of "SWITCH" should be highlighted.

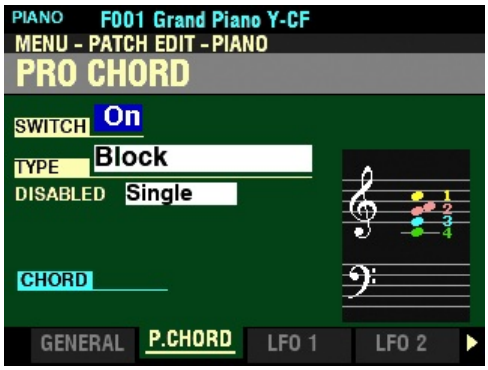
♦ PRO CHORD

This FUNCTION Mode Page allows you to reproduce complex harmonies by playing a single-note melody with the right hand and chords with the left hand. The four Components provide both the Melody and Harmony notes in different configurations depending on the specific ProChord Type or harmony pattern selected.

NOTE: The keyboard must be "SPLIT" (SPLIT button "ON,") in order to utilize the ProChord feature.

NOTE: The ProChord feature works on the UPPER Part only.

If you followed the instructions on the previous pages, you should now see the PRO CHORD FUNCTION MODE Page. The box to the right of "SWITCH" should be highlighted.

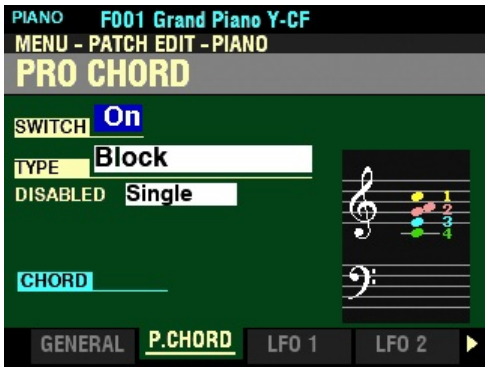


ProChord SWITCH

This Parameter allows you to turn ProChord "ON" or "OFF" for the selected Patch.

Turn the VALUE knob to make your selection.

ProChord CHORD DISPLAY

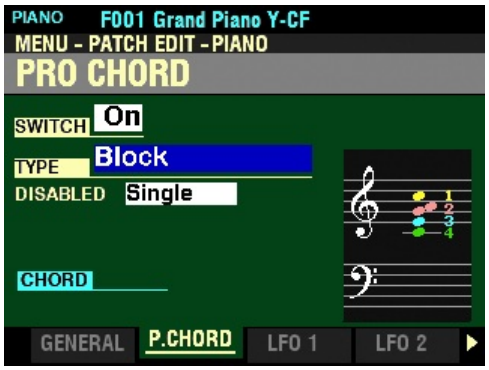


When this screen is displaying and SPLIT is active, notes pressed and held on the LOWER Part will cause a chord symbol to display next to the blue CHORD box (see the figure above). This symbol will show the Chord Root and Chord Type. For example, if you see the chord symbol Fm7, F is the Root of the chord and m7 (minor 7th) is the Chord Type.

This can be a useful feature to help you prepare a chord chart. If you are unsure how to write a particular chord, simply play the notes comprising the chord you want to identify and write down what is shown in the display on your chart.

The ProChord feature recognizes 26 different Chord Types. For a complete list of Chord Types, consult the APPENDIX chapter of this Guide.

From the screen shown on the previous page, press the DIRECTION "▼" button once.



The box to the right of "TYPE" should be highlighted.

ProChord TYPE

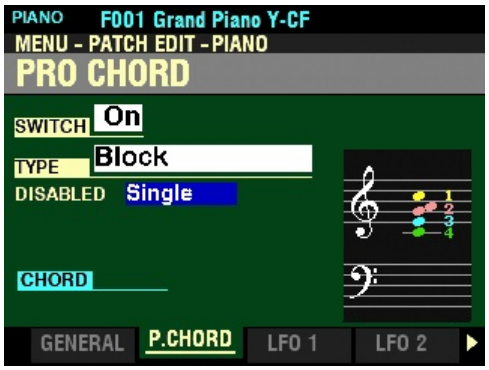
This Parameter allows you to select the ProChord Type or harmony pattern.

The data chart below shows the options you may select.

PRO CHORD TYPES	
Type	**Description**
Closed	Notes played on the LOWER Part are added to a single-note melody played on the UPPER Part.
Open	Similar to Closed, except that certain notes played on the LOWER Part sound an octave lower when added to a single-note melody played on the UPPER Part.
Duet	A single harmony note is added to a note played on the UPPER Part in response to keys pressed on the LOWER Part.
Block	5-part Closed harmony is added to single notes played on the UPPER Part.
Big Band Sax	Sax section chord voicing is added to single notes played on the UPPER Part.
Big Band	Big Band Brass voicing is added to single notes played on the UPPER Part.
Small Combo	3-part Closed harmony is added to single notes played on the UPPER Part.
Theatre	3-part Open harmony is added to single notes played on the UPPER Part.
Hymn	4-part choral-type harmony is added to single notes played on the UPPER Part.
Quartet 1	4-part Open harmony is added to single notes played on the UPPER Part.
Quartet 2	4-part Open harmony with wider voicing is added to single notes played on the UPPER Part.
Jazz Brass	5-part modern harmony is added to single notes played on the UPPER Part.
Strings	4-part Closed harmony with the melody note added two octaves below is added to single notes played on the UPPER Part.
Harmonic Chime	Chime voicing is added to single notes played on the UPPER Part.
Old Time	4-part old-time piano harmony is added to single notes played on the UPPER Part.
4 Part Closed	4-part Closed harmony is added to single notes played on the UPPER Part.
5 Part Open	5-part Open harmony is added to single notes played on the UPPER Part.

Turn the VALUE knob to make your selection.

From the screen shown on the previous page, press the DIRECTION "▼" button once.



The box to the right of "DISABLED" should be highlighted.

ProChord - DISABLED

This Parameter allows you to select how ProChord works when it is disabled (no chord outlined by the left hand or disabled by the Foot Switch.

The data chart below shows the options you may select.

Pro Chord - DISABLED	
Parameter	**Description**
Single	Component 1 only will sound.
Unison	All Components will sound.

Turn the VALUE knob to make your selection.

NOTE: For a fuller explanation of **Components**, see page 224.

From the screen shown on the previous page, press the PAGE "▶" button once. The LFO 1 Page should now display.

The box to the right of "TRIGGER" should be highlighted.

♦ LFO 1

Both the PIANO and ENSEMBLE Voice Sections have two LFOs (Low Frequency Oscillators). These can be used to modulate various Components. These are explained starting below.

NOTE: The Parameters explained below and on the following pages apply to both **LFO 1** and **LFO 2**.

NOTE: The violet-colored shapes on the right side of the screen are visual representations of the shapes of the selected Parameter. You will see their shapes change in response to the edits you make.

SETTING

These Parameters allow you to control the overall settings for the selected LFO.

TRIGGER MODE

This Parameter allows you to adjust whether the phase of the LFO will reset each time a key is depressed.

The data chart below shows the options you may select.

LFO TRIGGER MODE	
Parameter	**Description**
Note	The LFO of each note oscillates individually. Each LFO will start its cycle when a key is depressed.
Free	Pressing a key will intercept the LFO at whatever point it happens to be in its cycle.

Turn the VALUE knob to make your selection.

From the screen shown on the previous page, press the DIRECTION "▼" button <u>once</u>.

The box to the right of "WAVEFORM" should be highlighted.

WAVEFORM

This Parameter allows you to select the waveform of the LFO.

The data chart below shows the options you may select.

LFO WAVEFORM	
Waveform	**Description**
Triangle	A waveform which smoothly rises to a peak point and smoothly drops to a zero voltage.
Square	A waveform which sharply rises to a peak point and sharplydrops to a zero voltage.
Rectangular Square	A waveform which smoothly rises to a peak point and smoothly drops to a zero voltage.
Saw Up	A sawtooth wave which ramps upward and drops sharply to a zero voltage.
Saw Down	A sawtooth wave which ramps downward to a zero voltage and rises sharply.
S/H	Sample/Hold - samples the input analog signal and hold the sampled signal for a specified time.
Fluctuation	Random waveform with no periodicity.

Turn the VALUE knob to make your selection.

From the screen shown on the previous page, press the DIRECTION "▼" button once.

The box to the right of "RATE" should be highlighted.

RATE

This Parameter allows you to adjust the Oscillation Rate of the LFO. You can select from 0 (the slowest rate) to 127 (the fastest rate).

Turn the VALUE knob to the right to increase the Rate.

Turn the VALUE knob to the left to decrease the Rate.

From the above screen, press the DIRECTION "▼" button once.

The box to the right of "DELAY TIME" should be highlighted.

DELAY TIME

This Parameter allows you to adjust the amount of time after the initial keypress before the LFO begins oscillating. You can select from 0 (the LFO begins immediately) to 127 (maximum time).

Turn the VALUE knob to the right to increase the Delay Time.

Turn the VALUE knob to the left to decrease the Delay Time.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.

The box to the right of "ATTACK RATE" should be highlighted.

ATTACK RATE

This Parameter allows you to adjust the amount of time for the LFO to build to its full amount when using Delay Time. You can select from 0 (the LFO begins immediately) to 127 (maximum time).

Turn the VALUE knob to the right to increase the Attack Rate.

Turn the VALUE knob to the left to decrease the Attack Rate.

NOTE: **Delay Time** must be set to some value other than **0** to hear the effect of this Parameter.

From the above screen, press the DIRECTION "▼" button once.

The box to the right of "RATE KEY TRK" should be highlighted.

ATTACK RATE KEY TRACK

This Parameter allows you to adjust how the Attack Rate is modulated by the note or pitch. You can select from 0 (no Key Tracking) to 127 (maximum Key Tracking - the Attack Rate increases as higher notes are played).

Turn the VALUE knob to the right to increase the amount of Attack Key Tracking.

Turn the VALUE knob to the left to decrease the amount of Attack Key Tracking.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once. The box to the right of "PITCH DEP" should be highlighted.

These Parameters allow you to control the characteristics of the LFO 1 for each Component.

♦ WHAT IS A "COMPONENT?"

The PIANO / ENSEMBLE Patches contain what are called Components. The SK PRO contains 300 pre-programmed Patches for the PIANO and ENSEMBLE Voice Sections. Each individual Patch can contain up to four (4) sounding Components. These Components contain individual waveforms plus Parameters for controlling various characteristics such as Volume, Octave, Attack, Release and Filer Envelopes, etc. Thus, several Patches contain multiple waveforms, such as "Nylon&Steel Gtrs" and "Section Str. Oct." Each Component can be edited separately, though it is not necessary for each Component to be active as part of a Patch. A number of Patches have only one Component sounding, while other may have up to all four Components sounding.

For a fuller explanation of Components, please see page 224.

COMPONENT PITCH DEPTH

This Parameter allows you to adjust the LFO Pitch Depth for each Component.

Use the DIRECTION "◀" and "▶" buttons to select the Component you want to edit.

Us the 1. 2, 3 and 4 numbered buttons to turn Components "ON" or "OFF."

Turn the VALUE knob to the right to increase the Pitch Depth.

Turn the VALUE knob to the left to decrease the Pitch Depth.

From the screen shown on the previous page, press the DIRECTION "▼" button once.

The box to the right of "PITCH MOD DEP" should be highlighted.

COMPONENT PITCH MOD DEPTH

This Parameter allows you to sets the maximum LFO Pitch Depth controlled by the Modulation Wheel for each Component.

Use the DIRECTION "◀" and "▶" buttons to select the Component you want to edit.

Us the 1. 2, 3 and 4 numbered buttons to turn Components "ON" or "OFF."

Turn the VALUE knob to the right to increase the Pitch Modulation Depth.

Turn the VALUE knob to the left to decrease the Pitch Modulation Depth.

From the screen shown on the previous page, press the DIRECTION "▼" button once.

The box to the right of "FILTER DEP" should be highlighted.

COMPONENT FILTER DEPTH

This Parameter allows you to adjust the LFO Filter Depth for each Component.

Use the DIRECTION "◀" and "▶" buttons to select the Component you want to edit.

Us the 1. 2, 3 and 4 numbered buttons to turn Components "ON" or "OFF."

Turn the VALUE knob to the right to increase the Filter Depth.

Turn the VALUE knob to the left to decrease the Filter Depth.

From the above screen, press the DIRECTION "▼" button once.

The box to the right of "FILTER MOD DEP" should be highlighted.

COMPONENT FILTER MOD DEPTH

This Parameter allows you to adjust the maximum LFO Filter Depth controlled by the Modulation Wheel for each Component.

Use the DIRECTION "◀" and "▶" buttons to select the Component you want to edit.

Us the 1. 2, 3 and 4 numbered buttons to turn Components "ON" or "OFF."

Turn the VALUE knob to the right to increase the Filter Modulation Depth.

Turn the VALUE knob to the left to decrease the Filter Modulation Depth.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.

The box to the right of "AMP DEP" should be highlighted.

COMPONENT AMPLITUDE DEPTH

This Parameter allows you to adjust the LFO Amplitude Depth for each Component.

Use the DIRECTION "◀" and "▶" buttons to select the Component you want to edit.

Us the 1. 2, 3 and 4 numbered buttons to turn Components "ON" or "OFF."

Turn the VALUE knob to the right to increase the Amplitude Depth.

Turn the VALUE knob to the left to decrease the Amplitude Depth.

From the above screen, press the DIRECTION "▼" button once.

The box to the right of "AMP MOD DEP" should be highlighted.

COMPONENT AMPLITUDE MOD DEPTH

This Parameter allows you to adjust the maximum LFO Amplitude Depth controlled by the Modulation Wheel for each Component.

Use the DIRECTION "◀" and "▶" buttons to select the Component you want to edit.

Us the 1. 2, 3 and 4 numbered buttons to turn Components "ON" or "OFF."

Turn the VALUE knob to the right to increase the Amplitude Modulation Depth.

Turn the VALUE knob to the left to decrease the Amplitude Modulation Depth.

From the screen shown at the bottom of the previous page, press the PAGE "▶" button once. The LFO 2 Page should now display.

The box to the right of "TRIGGER" should be highlighted.

♦ LFO 2

As explained on page 220, both the PIANO and ENSEMBLE Voice Sections have two LFOs (Low Frequency Oscillators). These can be used to modulate various Components.

All of the Parameters for LFO 1 apply equally to LFO 2.

From the above screen, press the PAGE "▶" button once. You are now in the FUNCTION Mode Page for editing Components.

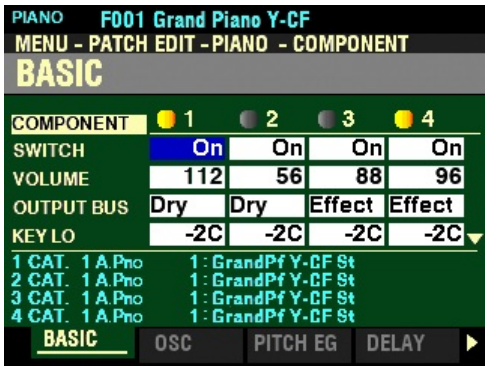
♦ COMPONENT

The Component Parameters are explained starting below.

NOTE: For an explanation of Components, please consult page 224.

From the screen shown at the bottom of the previous page, press the ENTER button (the EDIT box is already highlighted). The first Page of the COMPONENT FUNCTION Mode should now display. The box to the right of "SWITCH" should be highlighted.

For this Page and the rest of the Pages in the COMPONENT FUNCTION Mode, use the DIRECTION "◀" and "▶" buttons to select the Component you want to edit.



BASIC

This Page allows you to adjust basic Parameters. These are explained starting below.

SWITCH

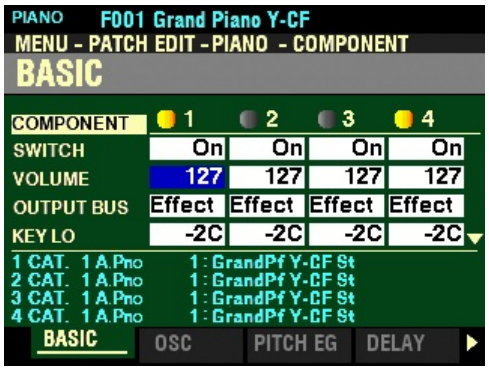
This Parameter allows you to select whether you want the selected Component to sound as part of the selected Patch. A round icon to the left of each number will be highlighted when a Component is On, or sounding.

Use the VALUE knob to turn the selected Component "On" or "Off."

NOTE: You can use the **1**, **2**, **3** and **4** numbered buttons to turn individual Components "ON" or "OFF" while editing. When "ON," the graphic next to the number will light yellow/orange.

NOTE: When editing a Component be sure the box next to its number in the display is highlighted; otherwise you will not hear the effect of your edit(s). Also, be sure to notice the KEY LO and KEY HI settings, which are explained on page 231.

From the screen shown on the previous page, press the DIRECTION "▼" button once.



The box to the right of "VOLUME" should be highlighted.

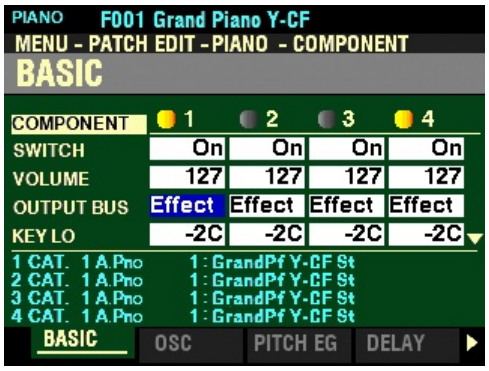
VOLUME

This Parameter allows you to adjust the Volume of the selected Component. You can select from 0 (no volume) to 127 (maximum volume).

Turn the VALUE knob to the right to increase the volume.

Turn the VALUE knob to the left to decrease the volume.

From the above screen, press the DIRECTION "▼" button once.



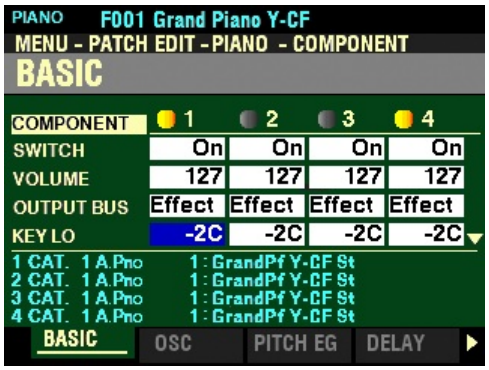
The box to the right of "OUTPUT BUS" should be highlighted.

OUTPUT BUS

This Parameter allows you to select whether Section Effects are enabled or disabled for this Component.

Turn the VALUE knob to select Dry (disabled) or Effect (enabled).

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "KEY LO" should be highlighted.

KEY RANGE LOW

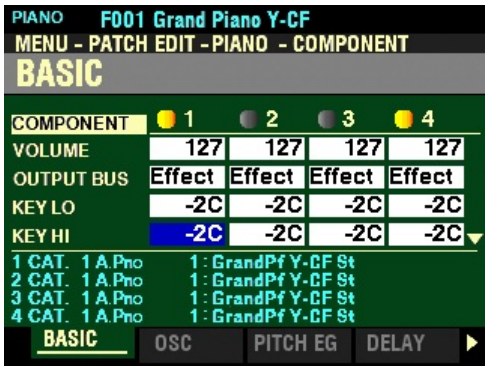
This Parameter allows you to adjust the lower sounding range of the selected Component by note number. You can select from -2C to 8G.

Turn the VALUE knob to the right to set the range lower.

Turn the VALUE knob to the left to set the range higher.

NOTE: **-2C** is a note two octaves and a sixth below the lowest note on a standard 88-note piano keyboard. **8G** is two octaves and a fifth above the highest note.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "KEY HI" should be highlighted.

KEY RANGE HIGH

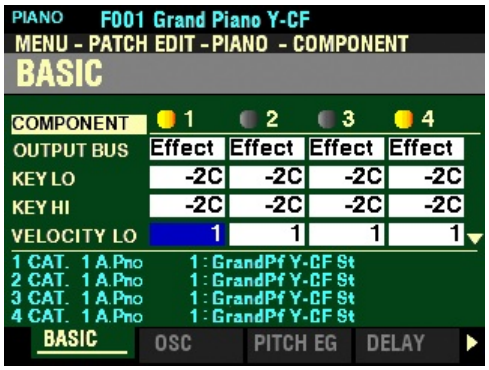
This Parameter allows you to adjust the upper sounding range of the selected Component by note number. You can select from -2C to 8G.

Turn the VALUE knob to the right to set the range lower.

Turn the VALUE knob to the left to set the range higher.

NOTE: The note ranges on the keyboards of the SK PRO are **C1** to **C6** for the SK PRO and **E0** to **E6** for the SK PRO-73.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "VELOCITY LO" should be highlighted.

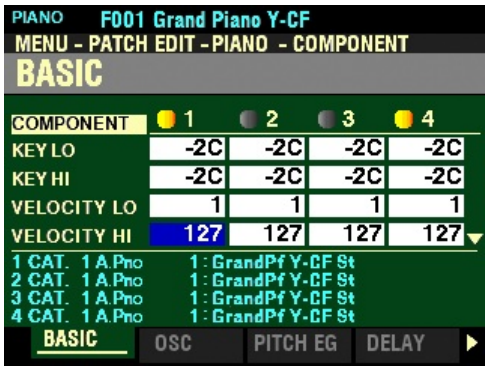
VELOCITY RANGE LOW

This Parameter allows you to adjust the low sounding point of the selected Component. You can select from 0 to 127.

Turn the VALUE knob to the right to increase the Low Point.

Turn the VALUE knob to the left to decrease the Low point.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "VELOCITY HI" should be highlighted.

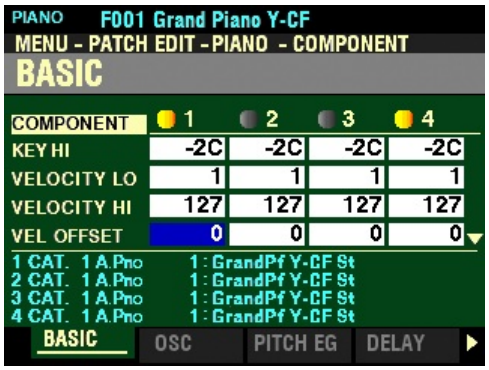
VELOCITY RANGE HIGH

This Parameter allows you to adjust the high sounding point of the selected Component. You can select from 0 to 127.

Turn the VALUE knob to the right to increase the High Point.

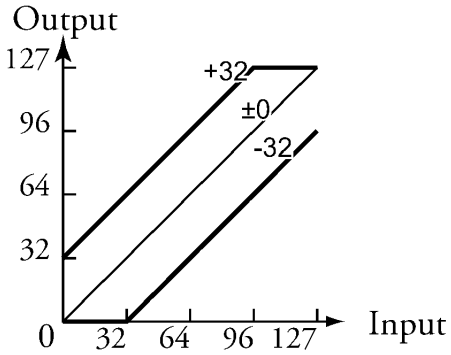
Turn the VALUE knob to the left to decrease the High Point.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "VEL OFFSET" should be highlighted.

VELOCITY OFFSET

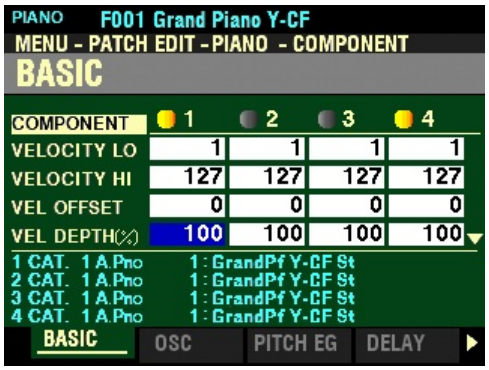


This Parameter allows you to adjust the relative loudness of notes played using the selected Component (see illustration above). You can select from -64 to +63. A lower setting will result in lower volume levels from the lowest to the highest key velocities. A higher setting will produce higher volumes from the lowest key velocities (the upper velocity level is fixed).

Turn the VALUE knob to the right to increase the Offset.

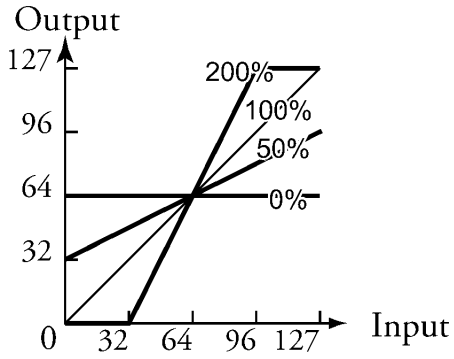
Turn the VALUE knob to the left to decrease the Offset.

From the screen shown on the previous page, press the DIRECTION "▼" button once.



The box to the right of "VEL DEPTH" should be highlighted.

VELOCITY DEPTH

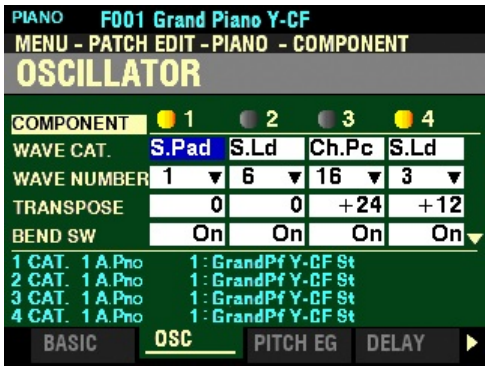


This Parameter allows you to adjust the response of the selected Component to key velocity (see illustration above). You can select from 0 to 200%. At 0 there is no change in velocity. At 200%, the volume is changed by the maximum amount in proportion to the velocity.

Turn the VALUE knob to the right to increase the Depth.

Turn the VALUE knob to the left to decrease the Depth.

From the screen shown on the previous page, press the PAGE "u" button once. The OSCILLATOR Page should now display.



The box to the right of "WAVE CAT." should be highlighted.

NOTE: As a reminder, use the DIRECTION "◀" and "▶" buttons to select the Component you want to edit.

OSCILLATOR

This Page allows you to select the Waveform and adjust various Pitch Parameters. These are explained starting below.

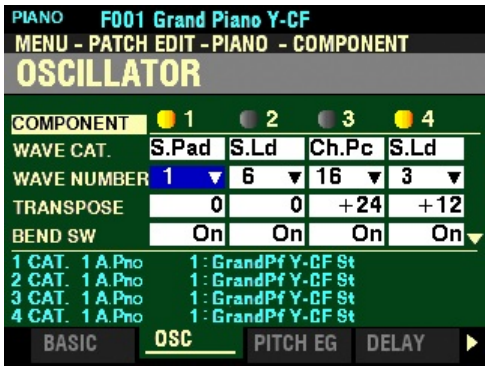
WAVEFORM CATEGORY

This Parameter allows you to select the Waveform Category. The data chart below shows the numbered categories for each Waveform Type.

WAVEFORM CATEGORIES	
Number	**Description**
1	Acoustic Piano
2	Electric Piano
3	Harpsichord
4	Clav
5	Chromatic Percussion
6	Guitar
7	Ethnic
8	SFX (Special Effects)
9	Wind
10	Strings
11	Choir
12	Synth Pad
13	Bass
14	Synth Lead
15	Free Reed
16	Percussion

Turn the VALUE knob to make your selection.

From the screen shown on the previous page, press the DIRECTION "▼" button once.



The box to the right of "WAVE NUMBER" should be highlighted.

WAVEFORM NUMBER

This Parameter allows you to select a specific Waveform Number. The data chart below shows the options you may select.

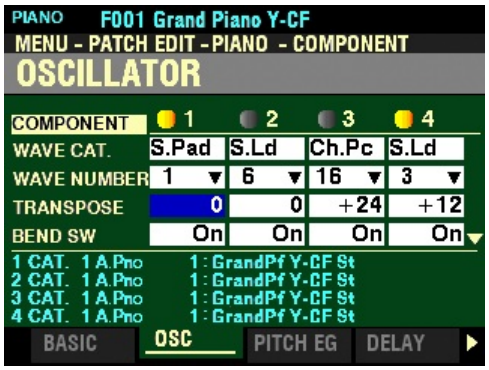
WAVEFORM NUMBERS

Category	Description	Number of Waveforms
A.Pno	Acoustic Piano	11
E.Pno	Electric Piano	8
Harps	Harpsichord	4
Clav	Clav	5
Ch.Pc	Chromatic Percussion	18
Guitar	Guitar	9
Ethnic	Ethnic	6
SFX	SFX (Special Effects)	7
Wind	Wind	27
Str.	Strings	9
Choir	Choir	4
S.Pad	Synth Pad	5
Bass	Bass	11
S.Ld	Synth Lead	11
F.Rd	Free Reed	14
Perc	Percussion	13

Turn the VALUE knob to make your selection.

NOTE: For a complete list of Waveform Numbers, consult the APPENDIX chapter of this Guide on page 585.

From the screen shown on the previous page, press the DIRECTION "▼" button once.



The box to the right of "TRANSPOSE" should be highlighted.

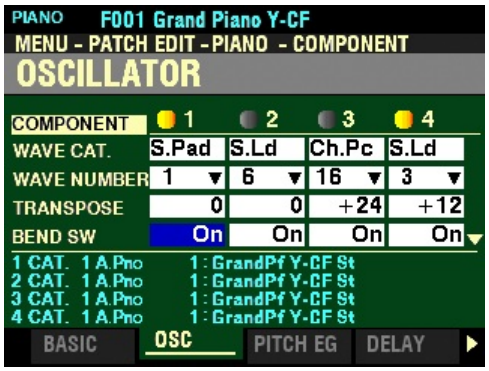
TRANSPOSE

This Parameter allows you to adjust the sounding pitch of the selected Component by half-steps or semitones. You can select from -63 (down five octaves and a third) to 63 (up five octaves and a third). At 0 there is no transposition.

Turn the VALUE knob to the right to transpose the selected Component higher.

Turn the VALUE knob to the right to transpose the selected Component lower.

From the above screen, press the DIRECTION "▼" button once.



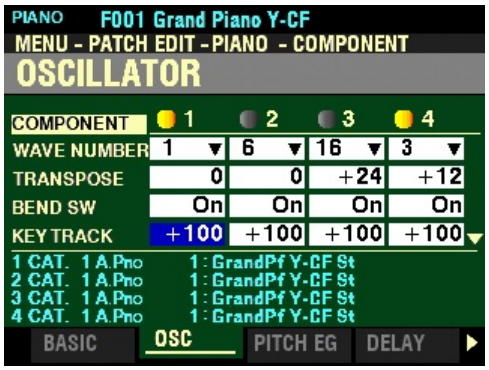
The box to the right of "BEND SW" should be highlighted.

PITCH BEND SWITCH

This Parameter allows you to select whether the Pitch Bend Wheel will bend the pitch of the selected Component.

Turn the VALUE knob to select Off (the Pitch Bend Wheel will not affect the selected Component) or On (the Pitch Bend Wheel will bend the pitch of the selected Component).

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "KEY TRACK" should be highlighted.

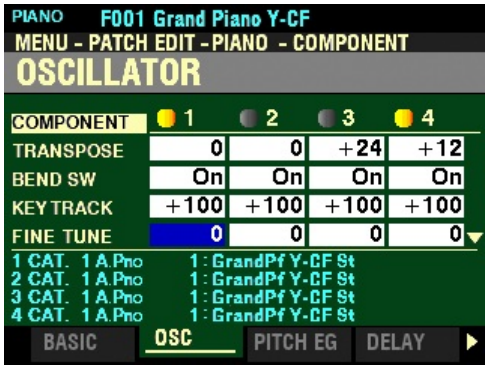
PITCH KEY TRACK

This Parameter allows you to adjust the amount of pitch change between keys on the keyboard for the selected Component. You can select from -100 to +100. At +100 the musical distance between any two adjacent notes will be 100 cents or one half-step. This is the normal setting. At +50 the notes will be one quarter-step apart. At 0 every note on the keyboard will sound the same pitch. A minus setting will cause notes to decrease in pitch as higher notes are played on the keyboard.

Turn the VALUE knob to the right to transpose the selected Component higher.

Turn the VALUE knob to the right to transpose the selected Component lowest.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "FINE TUNE" should be highlighted.

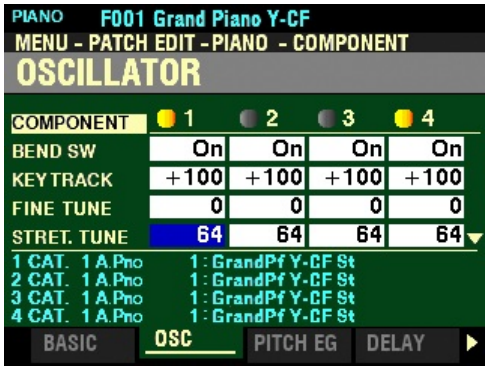
FINE TUNE

This Parameter allows you to adjust the sounding pitch of the selected Component by cents. You can select from -100 to +100. At "-100" the pitch will be one half-step flat. At "+100" the pitch will be one half-step sharp.

Turn the VALUE knob to the right to increase the Plus Depth.

Turn the VALUE knob to the left to decrease the Plus Depth.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "STRET TUNE" should be highlighted.

STRETCH TUNE DEPTH

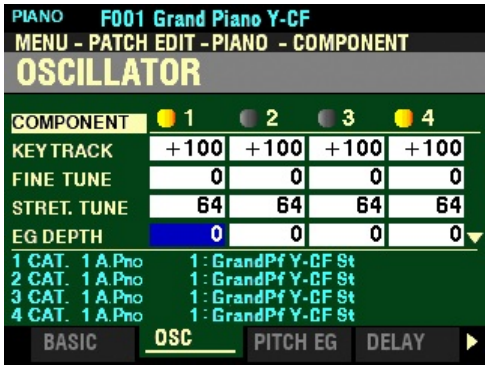
This Parameter allows you to adjust the depth of the Stretch Tuning for the selected Component. You can select from 0 to 127. 0 is an Equal Temperament. If the value is increased, the bass will sound lower and the treble will sound higher.

Turn the VALUE knob to the right to increase the Plus Depth.

Turn the VALUE knob to the left to decrease the Plus Depth.

NOTE: "Stretch tuning" is a method of tuning stringed instruments (notably piano) to compensate for their inherent inharmonicity, a characteristic that can differ from instrument to instrument. This is explained more fully several places on the Internet and can be found by executing Searches on "Stretch tuning" or "Inharmonicity."

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "EG DEPTH" should be highlighted.

EG DEPTH

This Parameter allows you to adjust the depth of the pitch changing of the Pitch EG (Envelope Generator for the selected Component. You can select from -64 to +63. At 0 there is no pitch change. At -64 or +63 the pitch will change down or up by one octave.

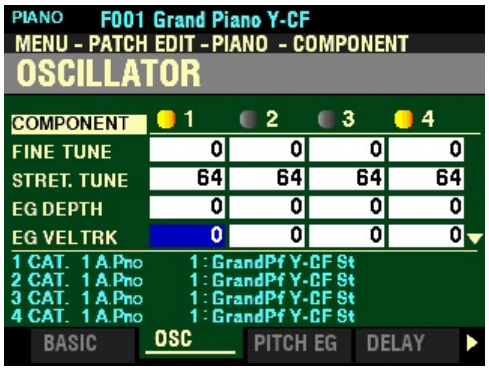
Turn the VALUE knob to the right to increase the Depth.

Turn the VALUE knob to the left to decrease the Depth.

NOTE: This Parameter must be set to some value other than **0** to hear the effect produced by the **PITCH EG**, which is explained starting on the next page.

NOTE: A large amount of pitch change may produce artifacts such as "step noise."

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "EG VEL TRK" should be highlighted.

EG VEL TRACK

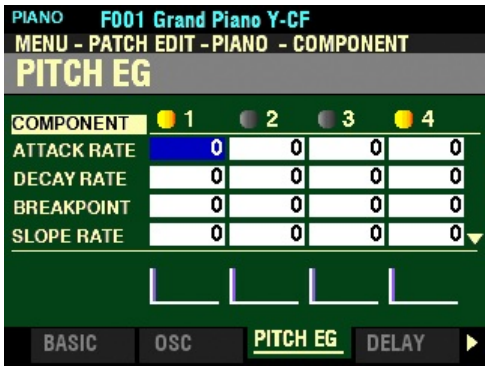
This Parameter allows you to adjust the depth of the pitch changing of the Pitch EG for the selected Component by keyboard velocity. You can select from 0 to 100%. At 0 there is no change by key velocity. At 100 the pitch will change by a wide amount.

Turn the VALUE knob to the right to increase the amount of Pitch variation.

Turn the VALUE knob to the left to decrease the amount of Pitch variation.

NOTE: The Pitch EG is explained in more detail starting on the next page.

From the screen shown on the previous page, press the PAGE "▶" button once. The PITCH EG Page should now display.

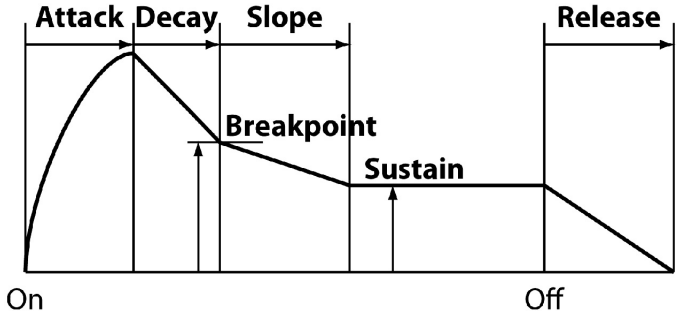


The box to the right of "ATTACK RATE" should be highlighted.

ENVELOPE GENERATORS (EG)

The EG's (Envelope Generators) allow you to control how the sound changes over time by playing notes on the keyboard.

There are three (3) EG's: Pitch, Filter and Amplitude. The illustration below shows the structure of the Envelope Generators for the PIANO/ENSEMBLE Section.

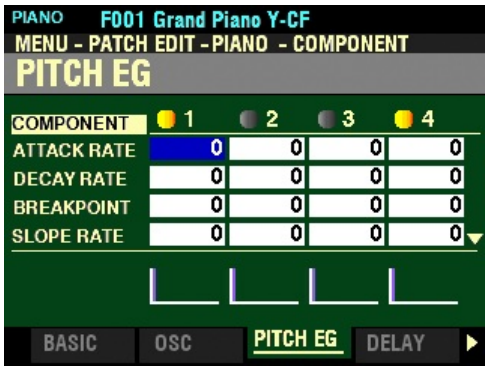


Each of the Parameters shown above as they affect Pitch will be explained starting on the next page.

NOTE: For these Parameters, you will notice violet-colored shapes at the bottom of the screen. These are visual representations of the shapes of the Parameters. You will see their shapes change in response to the edits you make.

NOTE: As a reminder, use the DIRECTION "◀" and "▶" buttons to select the Component you want to edit.

PITCH EG



This FUNCTION Mode Page allows you to adjust the Pitch Envelope.

NOTE: The PITCH EG DEPTH Parameter must be set to some value other than **0** to hear the effect produced by the PITCH EG.

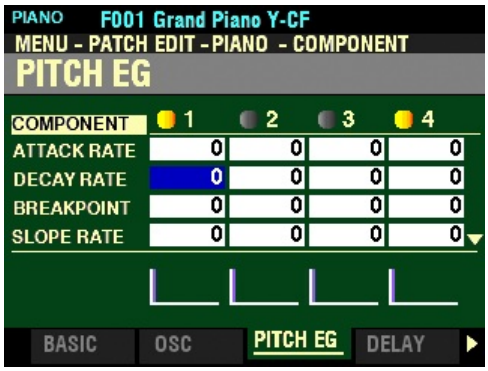
ATTACK RATE

This Parameter allows you to adjust the time for the pitch to increase to its peak value beginning when a key is depressed. You can select from 0 to 127.

Turn the VALUE knob to the right to increase the Attack Rate.

Turn the VALUE knob to the left to decrease the Attack Rate.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "DECAY RATE" should be highlighted.

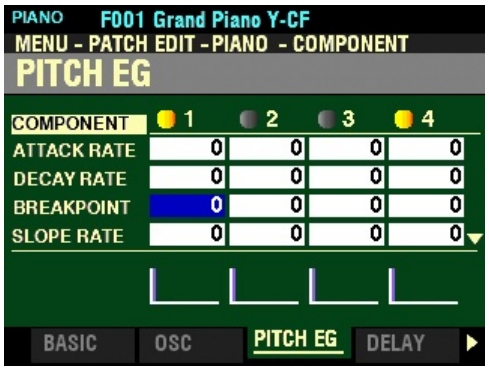
DECAY RATE

This Parameter allows you to adjust the time from the peak amount to the Breakpoint Level (explained on the next page). You can select from 0 to 127.

Turn the VALUE knob to the right to increase the Decay Rate.

Turn the VALUE knob to the left to decrease the Decay Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "BREAKPOINT" should be highlighted.

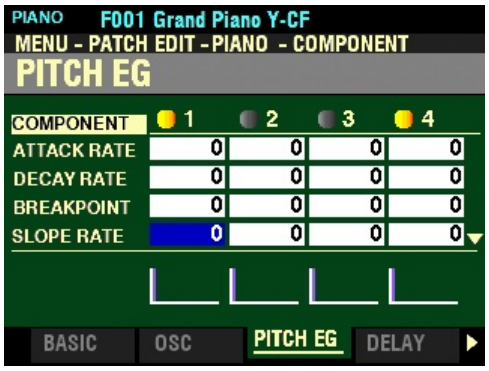
BREAKPOINT LEVEL

This Parameter allows you to adjust the level of the point immediately following the Attack. You can select from 0 to 127. A higher value will set a higher pitch as the Breakpoint.

Turn the VALUE knob to the right to increase the Breakpoint Pitch.

Turn the VALUE knob to the left to decrease the Breakpoint Pitch.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "SLOPE RATE" should be highlighted.

SLOPE RATE

This Parameter allows you to adjust the time from the Breakpoint Level to the Sustain Level. You can select from 0 to 127. A higher value decreases the time required for the pitch to return to the base frequency. A lower value increases the time.

Turn the VALUE knob to the right to increase the Slope Rate.

Turn the VALUE knob to the left to decrease the Slope Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.

The box to the right of "EG DEPTH" should be highlighted.

SUSTAIN LEVEL

This Parameter allows you to adjust the main level which will remain until the key is released. You can select from 0 to 127. A higher value will set a higher pitch as the Breakpoint.

From the above screen, press the DIRECTION "▼" button once.

The box to the right of "REL RATE" should be highlighted.

RELEASE RATE

This Parameter allows you to adjust the time for the level to fade from the Sustain Level to zero after the key is released. You can select from 0 to 127. A higher value will result in a longer Release time.

Turn the VALUE knob to the right to increase the Release Rate.

Turn the VALUE knob to the left to decrease the Release Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.

The box to the right of "ATK KEY TRK" should be highlighted.

ATTACK RATE KEY TRACK

This Parameter allows you to adjust the Attack Rate of the Pitch EG by note. You can select from 0 to 127. At 0 each note will sound the same Pitch EG. 127 will cause the envelope to respond by the maximum amount.

Turn the VALUE knob to the right to increase the Attack Rate.

Turn the VALUE knob to the left to decrease the Attack Rate.

From the above screen, press the DIRECTION "▼" button once.

The box to the right of "DCY KEY TRACK" should be highlighted.

DECAY RATE KEY TRACK

This Parameter allows you to adjust the Decay Rate of the Pitch EG by note. At 0 each note will sound the same Pitch EG. 127 will cause the envelope to respond by the maximum amount.

Turn the VALUE knob to the right to increase the Decay Rate.

Turn the VALUE knob to the left to decrease the Decay Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.

The box to the right of "SLO KEY TRACK" should be highlighted.

SLOPE RATE KEY TRACK

This Parameter allows you to adjust the Slope Rate of the Pitch EG by note. You can select from 0 to 127. At 0 each note will sound the same Pitch EG. 127 will cause the envelope to respond by the maximum amount.

Turn the VALUE knob to the right to increase the Slope Rate.

Turn the VALUE knob to the left to decrease the Slope Rate.

From the above screen, press the DIRECTION "▼" button once.

The box to the right of "REL KEY TRACK" should be highlighted.

RELEASE RATE KEY TRACK

This Parameter allows you to adjust the Release Rate of the Pitch EG by note. At 0 each note will sound the same Pitch EG. 127 will cause the envelope to respond by the maximum amount.

Turn the VALUE knob to the right to increase the Release Rate.

Turn the VALUE knob to the left to decrease the Release Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.

The box to the right of "ATK VEL TRK" should be highlighted.

ATTACK RATE VELOCITY TRACK

This Parameter allows you to adjust the Attack Rate of the Pitch EG by key velocity. You can select from 0 to 127. A higher velocity will result in a more pronounced pitch change.

Turn the VALUE knob to the right to increase the Attack Rate.

Turn the VALUE knob to the left to decrease the Attack Rate.

From the above screen, press the DIRECTION "▼" button once.

The box to the right of "REL VEL TRK" should be highlighted.

RELEASE RATE VELOCITY TRACK

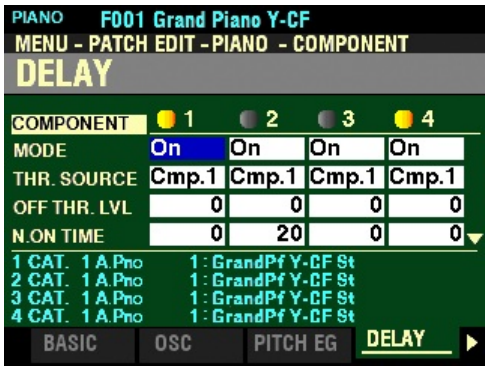
This Parameter allows you to adjust the Release Rate of the Pitch EG by key velocity. You can select from 0 to 127. A higher velocity will result in a more pronounced pitch change.

Turn the VALUE knob to the right to increase the Release.

Turn the VALUE knob to the left to decrease the Release.

NOTE: The Velocity Parameter in the COMBINATION Edit Menu must be "ON" (values 1 ~ 4) in order to hear the effect of Velocity Tracking.

From the screen shown at the bottom of the previous page, press the PAGE "▶" button once. The DELAY Page should now display.



The box to the right of "MODE" should be highlighted.

DELAY

This FUNCTION Mode Page allows you to adjust the note delay characteristics of the selected Component.

NOTE: Do not confuse this Parameter with the DELAY MULTI EFFECT Parameter (explained in the **MULTI EFFECT / OVERDRIVE / EQUALIZER** chapter of this Guide). This is **not** an effect meant to replicate a tape-delay unit. For a complete explanation of this Parameter, see the following paragraphs and pages.

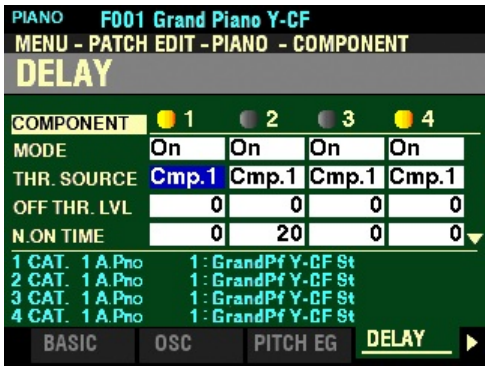
MODE

This Parameter allows you to select how the notes will sound. The data chart below shows the options you may select.

DELAY MODE	
Parameter	**Description**
On	When the note is "ON" the selected Component sounds at the Note On Delay Time. When the note is "OFF" the sound will stop after the Note Off Delay Time.
Off Vel	The selected Component does not sound even if the note is "ON" If the note is "OFF" it will sound if the Amplitude EG level of the referenced Component is above the Note Off Threshold Level. The velocity of the note will be determined by the velocity with which the key is depressed.
Off EG	Similar to Note Off Vel, except that the velocity of the note will be determined by the level of the Amplitude EG of the referenced Component.

NOTE: Using one of the **Note Off** settings may cause played notes to cipher or "stick on." To avoid this, set the Sustain Level of the Amplitude EG at **0** if you are using one of the **Note Off** settings.

From the screen shown on the previous page, press the DIRECTION "▼" button once.



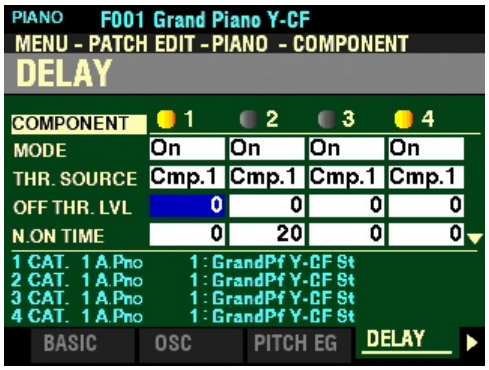
The box to the right of "THR SOURCE" should be highlighted.

THRESHOLD SOURCE

This Parameter allows you to select the reference Component for the Delay settings. You can select Cmp1, Cmp2, Cmp3 or Cmp4.

Turn the VALUE knob to make your selection.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "OFF THR. LVL" should be highlighted.

NOTE OFF THRESHOLD LEVEL

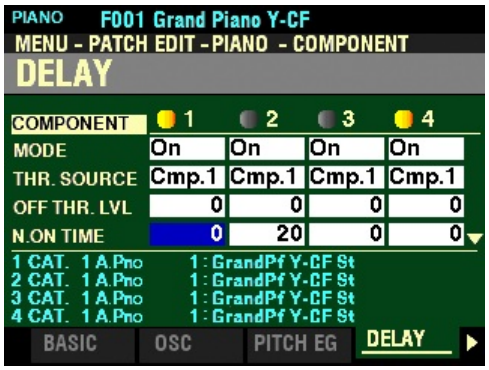
This Parameter allows you to adjust the Note Off level of the Amplitude Envelope of the reference Component (the Component selected under THR SOURCE). You can select from 0 to 127.

Turn the VALUE knob to the right to increase the Threshold Level.

Turn the VALUE knob to the left to decrease the Threshold Level.

NOTE: The two THRESHOLD Parameters will allow you to replicate the release characteristics of an acoustic piano. They are intended to be used only with voices having a Percussive envelope such as Piano, etc.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "N.ON TIME" should be highlighted.

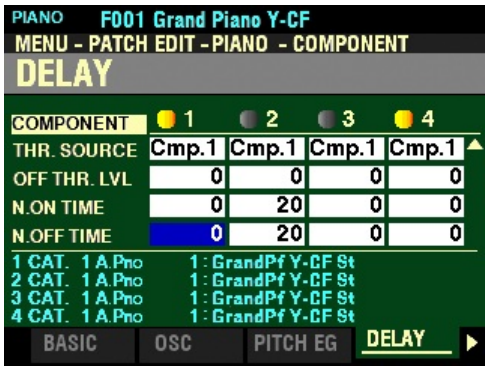
NOTE ON DELAY TIME

This Parameter allows you to adjust the time to sound the note after a key is depressed. You can select from 0 to 127 (0 to 5 seconds).

Turn the VALUE knob to the right to increase the Note On Delay Time.

Turn the VALUE knob to the left to decrease the Note On Delay Time.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "N.OFF TIME" should be highlighted.

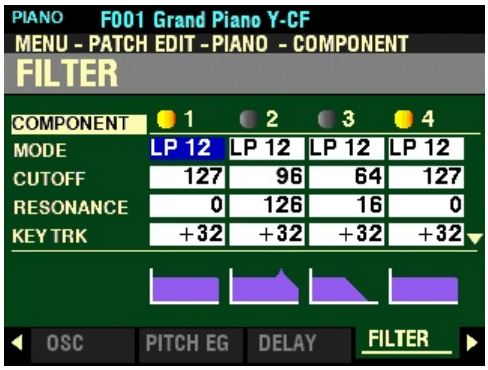
NOTE OFF DELAY TIME Setting Range: 0 ~ 127 : 0 ~ 5 s

This Parameter allows you to adjust the time to hold the note before it stops sounding after the key is released. You can select from 0 to 127 (0 to 5 seconds).

Turn the VALUE knob to the right to increase the Note Off Delay Time.

Turn the VALUE knob to the left to decrease the Note Off Delay Time.

From the screen shown at the bottom of the previous page, press the PAGE "▶" button once. The FILTER Page should now display.



The box to the right of "MODE" should be highlighted.

FILTER

This Parameter allows you to control the basic timbre of the sound by selectively blocking some frequencies while allowing others to sound.

NOTE: The violet-colored shapes at the bottom of the screen are visual representations of the shapes of the Parameters. You will see their shapes change in response to the edits you make.

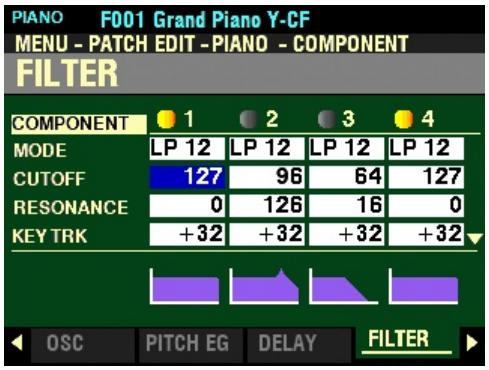
MODE

This Parameter allows you to select the filter method. The data chart below shows the options you may select.

FILTER MODE OPTIONS	
Description	**Function**
LP12	Low-Pass 12dB - reduces the higher frequencies at 12dB/octave.
HP12	High-Pass 12dB - reduces the lower frequencies at 12dB/octave

Turn the VALUE knob to make your selection.

From the screen shown on the previous page, press the DIRECTION "▼" button once.



The box to the right of "CUTOFF" should be highlighted.

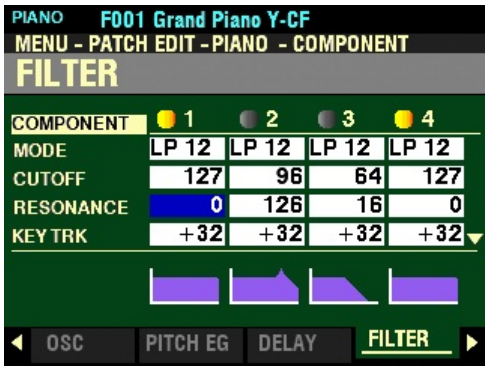
CUTOFF FREQUENCY

This Parameter allows you to adjust the Cutoff Frequency of the Filter. You can select from 0 to 127.

Turn the VALUE knob to the right to increase the Cutoff Frequency.

Turn the VALUE knob to the left to decrease the Cutoff Frequency.

From the above screen, Press the DIRECTION "▼" button once.



The box to the right of "RESONANCE" should be highlighted.

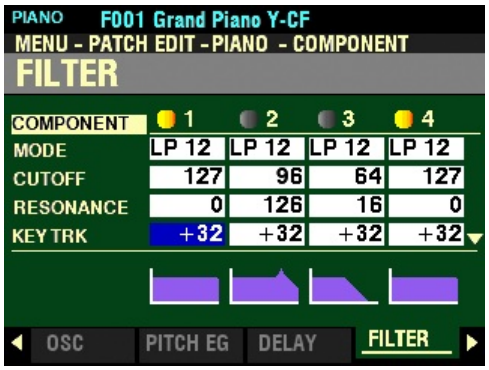
RESONANCE

This Parameter allows you to add a controlled amplification to the Cutoff Frequency, coloring the original pitch. You can select from 0 to 127.

Turn the VALUE knob to the right to increase the Filter Resonance.

Turn the VALUE knob to the left to decrease the Filter Resonance.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "KEY TRK" should be highlighted.

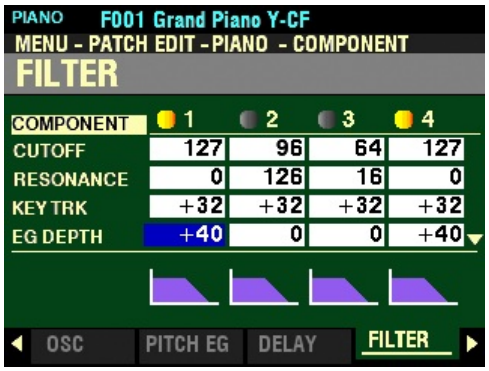
KEY TRACK CUTOFF

This Parameter allows you to adjust the amount the Cutoff Frequency will change by note. You can select from -100% to +100%. At 0 the Cutoff Frequency does not change. At 100%, the Cutoff Frequency changes by a wide amount.

Turn the VALUE knob to the right to increase the amount of Key Tracking.

Turn the VALUE knob to the left to decrease the amount of Key Tracking.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "EG DEPTH" should be highlighted.

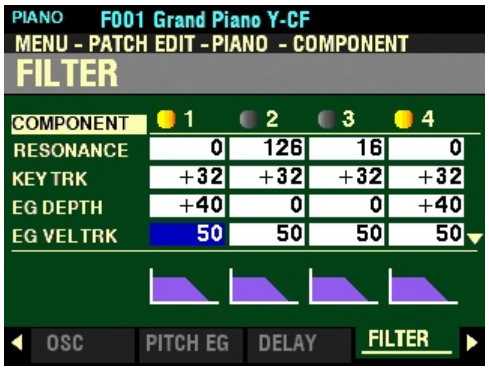
EG DEPTH

This Parameter allows you to adjust the amount the Cutoff Frequency will change by the Filter Envelope. You can select from -100% to +100%. At 0 the Cutoff Frequency does not change. At 100%, the Cutoff Frequency changes by a wide amount.

Turn the VALUE knob to the right to increase the Depth.

Turn the VALUE knob to the left to decrease the Depth.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "EG VEL TRK" should be highlighted.

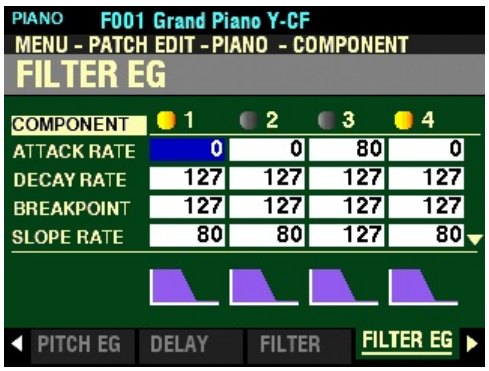
EG VEL KEY TRACK

This Parameter allows you to adjust the amount of the Filter Envelope by Note "ON" or "OFF" velocities. You can select from 0 to 100. A lower key velocity will produce less of a Filter EQ. A higher velocity will produce a more pronounced EQ.

Turn the VALUE knob to the right to increase the amount of Key Tracking.

Turn the VALUE knob to the left to decrease the amount of Key Tracking.

From the above screen, press the PAGE "▶" button once. The FILTER EG Page should now display.



The box to the right of "ATTACK RATE" should be highlighted.

FILTER EG

The Filter Envelope Generator allows you to control how the Filter will change the sound over time.

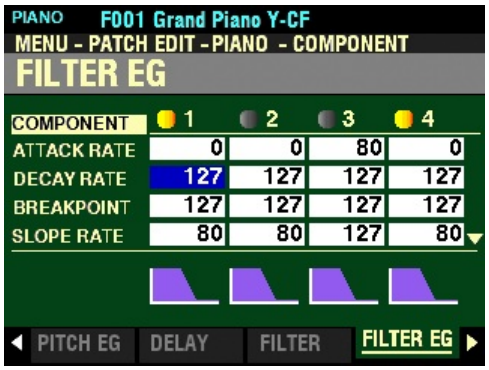
ATTACK RATE

This Parameter allows you to adjust the time for the Cutoff Frequency to increase to its peak value beginning when a key is depressed. You can select from 0 to 127.

Turn the VALUE knob to the right to increase the Rate.

Turn the VALUE knob to the left to decrease the Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "DECAY RATE" should be highlighted.

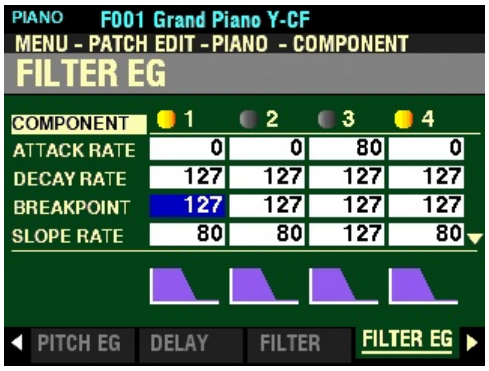
DECAY RATE

This Parameter allows you to adjust the time from the peak amount to the Breakpoint Level. You can select from 0 to 127. A higher value results in a longer rate.

Turn the VALUE knob to the right to increase the Decay Rate.

Turn the VALUE knob to the left to decrease the Decay Rate.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "BREAKPOINT" should be highlighted.

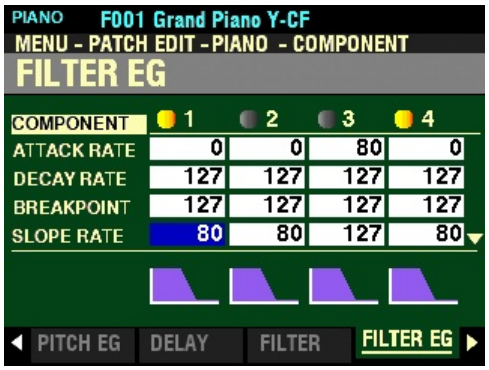
BREAKPOINT LEVEL

This Parameter allows you to adjust the level of the point immediately following the Attack. You can select from 0 to 127. A higher value will set a higher pitch as the Breakpoint.

Turn the VALUE knob to the right to increase the Breakpoint Level.

Turn the VALUE knob to the left to decrease the Breakpoint Level.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "SLOPE RATE" should be highlighted.

SLOPE RATE

This Parameter allows you to adjust the time from the Breakpoint Level to the Sustain Level (explained below). You can select from 0 to 127. A higher value decreases the time required for the sound to return to the base frequency. A lower value increases the time.

Turn the VALUE knob to the right to increase the Slope Rate.

Turn the VALUE knob to the left to decrease the Slope Rate.

From the above screen, press the DIRECTION "▼" button once.

The box to the right of "SUSTAIN LVL" should be highlighted.

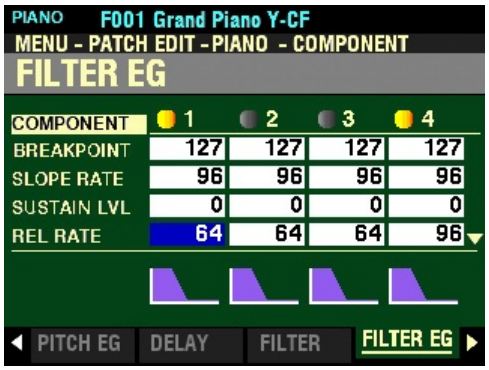
SUSTAIN LEVEL

This Parameter allows you to adjust the Cutoff Frequence Level which will remain until the key is released. You can select from 0 to 127. A higher value will set a higher pitch as the Breakpoint.

Turn the VALUE knob to the right to increase the Sustain Level.

Turn the VALUE knob to the left to decrease the Sustain Level.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "REL RATE" should be highlighted.

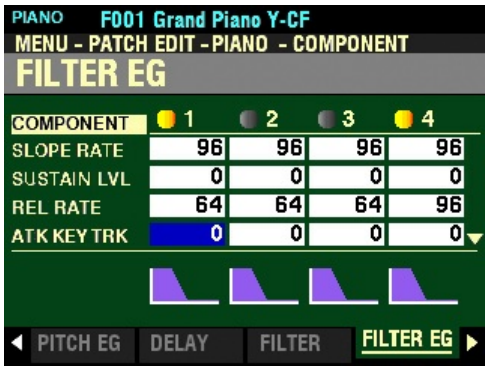
RELEASE RATE

This Parameter allows you to adjust the time for the level to fade from the Sustain Level to zero after the key is released. You can select from 0 to 127. A higher value will result in a longer Release time.

Turn the VALUE knob to the right to increase the Release Rate.

Turn the VALUE knob to the left to decrease the Release Rate.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "ATK KEY TRK" should be highlighted.

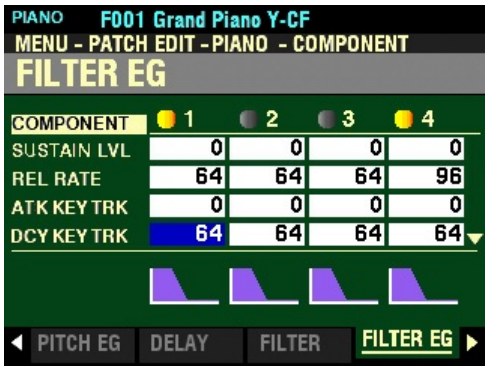
ATTACK RATE KEY TRACK

This Parameter allows you to adjust the Attack Rate of the Filter EG by note. At 0 each note will sound the same Filter EG. 127 will cause the envelope to respond by the maximum amount.

Turn the VALUE knob to the right to increase the Attack Rate.

Turn the VALUE knob to the left to decrease the Attack Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "DCY KEY TRK" should be highlighted.

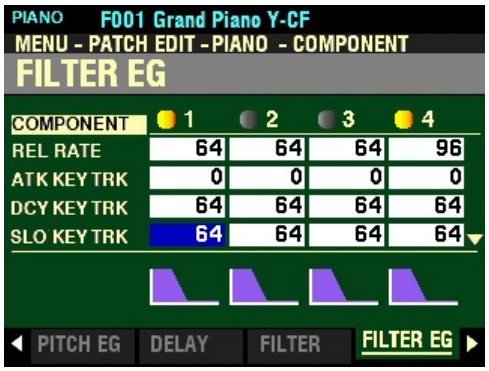
DECAY RATE KEY TRACK

This Parameter allows you to adjust the Decay Rate of the Filter EG by note. You can select from 0 to 127. At 0 each note will sound the same Filter EG. 127 will cause the envelope to respond by the maximum amount.

Turn the VALUE knob to the right to increase the Decay Rate.

Turn the VALUE knob to the left to decrease the Decay Rate.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "SLO KEY TRACK" should be highlighted.

SLOPE RATE KEY TRACK

This Parameter allows you to adjust the Slope Rate of the Filter EG by note. You can select from 0 to 127. At 0 each note will sound the same Filter EG. 127 will cause the envelope to respond by the maximum amount.

Turn the VALUE knob to the right to increase the Slope Rate.

Turn the VALUE knob to the left to decrease the Slope Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.

The box to the right of "REL KEY TRK" should be highlighted.

RELEASE RATE KEY TRACK

This Parameter allows you to adjust the Release Rate of the Filter EG by note. You can select from 0 to 127. At 0 each note will sound the same Filter EG. 127 will cause the envelope to respond by the maximum amount.

Turn the VALUE knob to the right to increase the Release Rate.

Turn the VALUE knob to the left to decrease the Release Rate.

From the above screen, press the DIRECTION "▼" button once.

The box to the right of "ATK VEL TRK" should be highlighted.

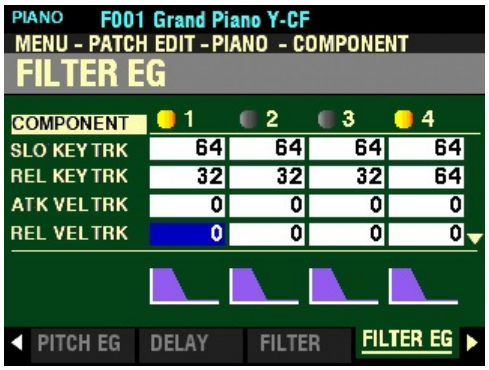
ATTACK RATE VELOCITY TRACK

This Parameter allows you to adjust the Attack Rate of the Filter EG by key velocity. You can select from 0 to 127. A higher velocity will result in a more rapid Envelope.

Turn the VALUE knob to the right to increase the Attack Rate.

Turn the VALUE knob to the left to decrease the Attack Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "REL VEL TRK" should be highlighted.

RELEASE RATE VELOCITY TRACK

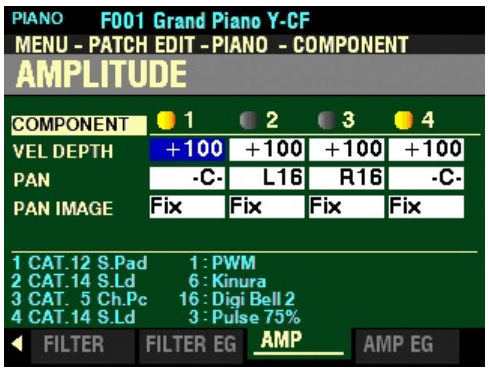
This Parameter allows you to adjust the Release Rate of the Filter EG by key velocity. You can select from 0 to 127. A higher velocity will result in a longer rate.

Turn the VALUE knob to the right to increase the Release Rate.

Turn the VALUE knob to the left to decrease the Release Rate.

NOTE: The Velocity Parameter in the COMBINATION Edit Menu must be "ON" (values 1 ~ 4) in order to hear the effect of Velocity Tracking.

From the above screen, press the PAGE "▶" button once. The AMPLITUDE Page should now display.



The box to the right of "VEL DEPTH" should be highlighted.

AMPLITUDE

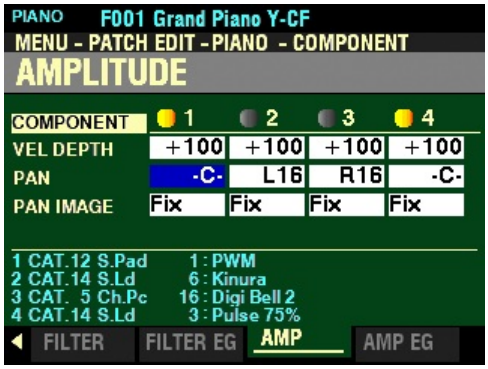
VEL DEPTH

This Parameter allows you to adjust the amount of volume in response to key velocity. You can select from 0 to +100%. At 0 there is no change in volume. At +100%, the volume is changed by the maximum amount corresponding to velocity.

Turn the VALUE knob to the right to increase the Velocity Depth.

Turn the VALUE knob to the left to decrease the Velocity Depth.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "PAN" should be highlighted.

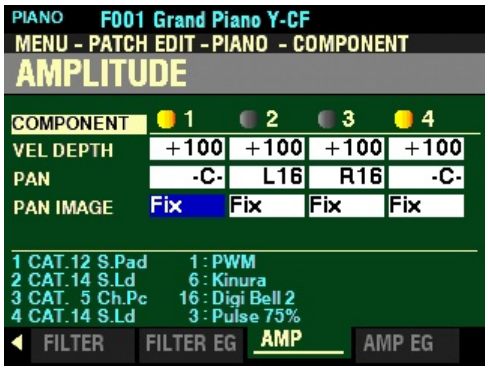
PAN

This Parameter allows you to adjust the directionality or Pan setting for the selected Component. You can select from 0 to 127. At "-C-" the sound is located in the center. At "L64" the sound will be in the Left channel only. At "R63" the sound will be in the Right channel only.

Turn the VALUE knob to the right to increase the Pan Directionality.

Turn the VALUE knob to the left to decrease the Pan Directionality.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "PAN IMAGE" should be highlighted.

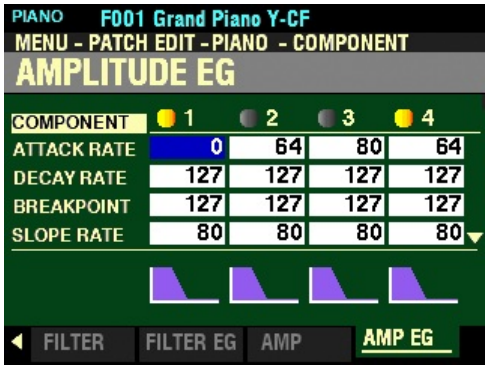
PAN IMAGE

This Parameter allows you to adjust the panning by the note. The data chart below shows how the Tone Wheels are allocated to each Drawbar.

PAN IMAGE	
Parameter	**Description**
Fixed	No panning - all notes come from the center.
L-R	Playing notes chromatically going up on the keyboard will cause the notes on the left to sound first.
R-L	Playing notes chromatically going up on the keyboard will cause the notes on the right to sound first.
Pyramid	Notes played chromatically going up on the keyboard will start in the center and alternate between left and right.
Inverted	Notes played chromatically going up on the keyboard will start at one end and alternate between left and right until they meet in the center.

Turn the VALUE knob to make your selection.

From the screen shown at the bottom of the previous page, press the PAGE "▶" button once. The AMPLITUDE EG Page should now display.



The box to the right of "ATTACK RATE" should be highlighted.

AMPLITUDE EG

The Amplitude EG is an Envelope Generator affecting Volume.

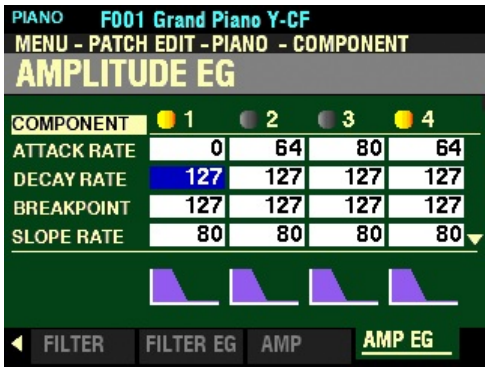
ATTACK RATE

This Parameter allows you to adjust the time for the volume to increase to its peak value beginning when a key is depressed. You can select from 0 to 127.

Turn the VALUE knob to the right to increase the Attack Rate.

Turn the VALUE knob to the left to decrease the Attack Rate.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "DECAY RATE" should be highlighted.

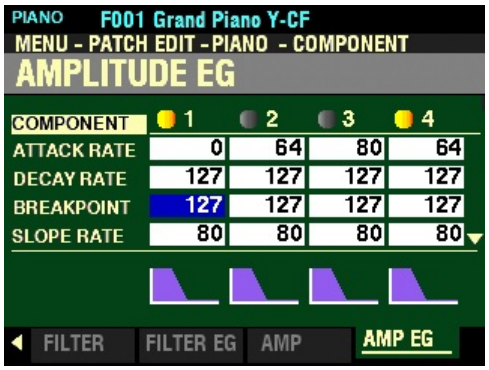
DECAY RATE

This Parameter allows you to adjust the time from the peak amount to the Breakpoint Level. You can select from 0 to 127.

Turn the VALUE knob to the right to increase the Decay Rate.

Turn the VALUE knob to the left to decrease the Decay Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "BREAKPOINT" should be highlighted.

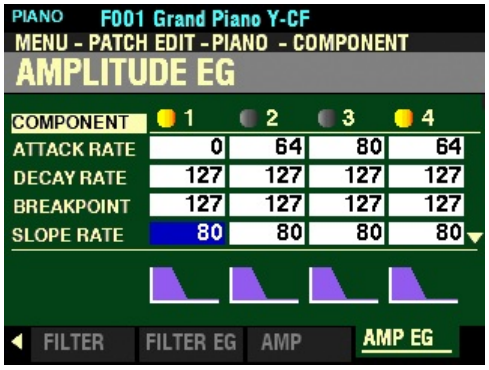
BREAKPOINT LEVEL

This Parameter allows you to adjust the level of the point immediately following the Attack. You can select from 0 to 127. A higher value will set a higher volume as the Breakpoint.

Turn the VALUE knob to the right to increase the Breakpoint Volume.

Turn the VALUE knob to the left to decrease the Breakpoint Volume.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "SLOPE RATE" should be highlighted.

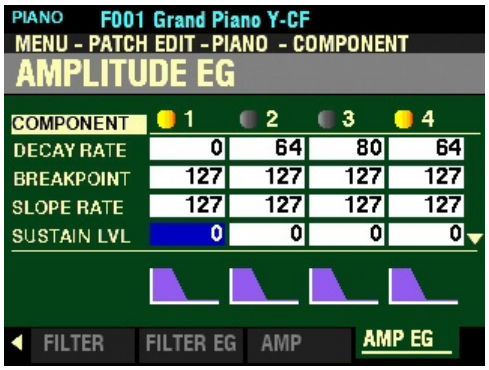
SLOPE RATE

This Parameter allows you to adjust the time from the Breakpoint Level to the Sustain Level. You can select from 0 to 127. A higher value decreases the time required for the sound to return to the base frequency. A lower value increases the time.

Turn the VALUE knob to the right to increase the Slope Rate.

Turn the VALUE knob to the left to decrease the Slope Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "SUSTAIN LVL" should be highlighted.

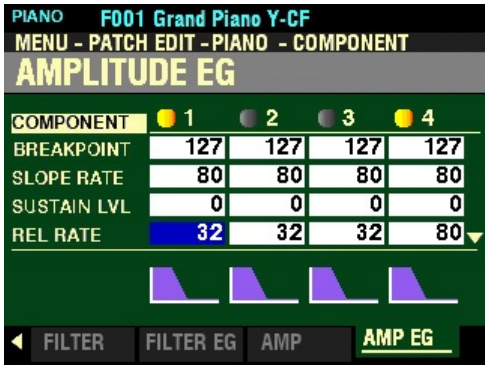
SUSTAIN LEVEL

This Parameter allows you to adjust the main level which will remain until the key is released. You can select from 0 to 127. A higher value will set a higher pitch as the Breakpoint.

Turn the VALUE knob to the right to increase the Sustain Level.

Turn the VALUE knob to the left to decrease the Sustain Level.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "REL RATE" should be highlighted.

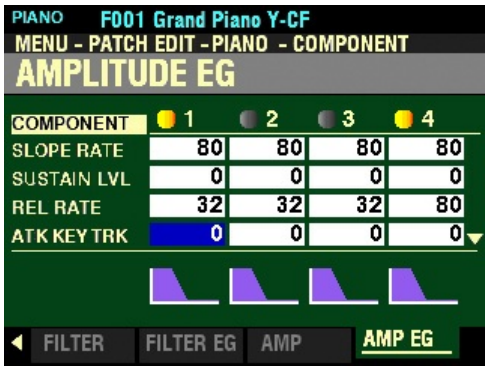
RELEASE RATE Setting Range: 0 ~ 127

This Parameter allows you to adjust the time for the level to fade from the Sustain Level to zero after the key is released. You can select from 0 to 127. A higher value will result in a longer Release time.

Turn the VALUE knob to the right to increase the Release Rate.

Turn the VALUE knob to the left to decrease the Release Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "ATK KEY TRK" should be highlighted.

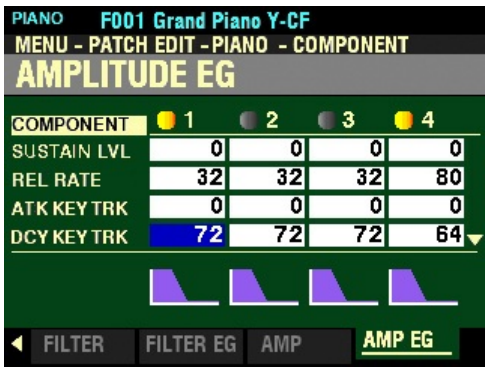
ATTACK RATE KEY TRACK

This Parameter allows you to adjust the Attack Rate of the Amplitude EG by note. You can select from 0 to 127. At 0 each note will sound the same Amplitude EG. 127 will cause the envelope to respond by the maximum amount.

Turn the VALUE knob to the right to increase the Slope Rate.

Turn the VALUE knob to the left to decrease the Slope Rate.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "DCY KEY TRK" should be highlighted.

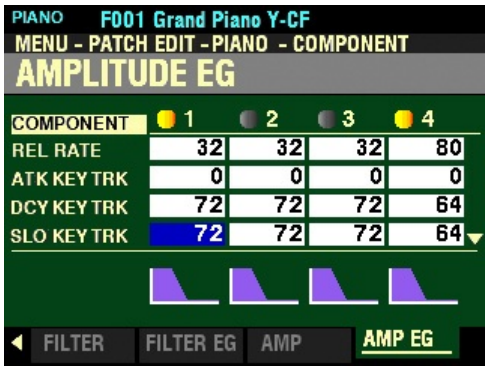
DECAY RATE KEY TRACK

This Parameter allows you to adjust the Decay Rate of the Amplitude EG by note. You can select from 0 to 127. At 0 each note will sound the same Filter EG. 127 will cause the envelope to respond by the maximum amount.

Turn the VALUE knob to the right to increase the Decay Rate.

Turn the VALUE knob to the left to decrease the Decay Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "SLO KEY TRK" should be highlighted.

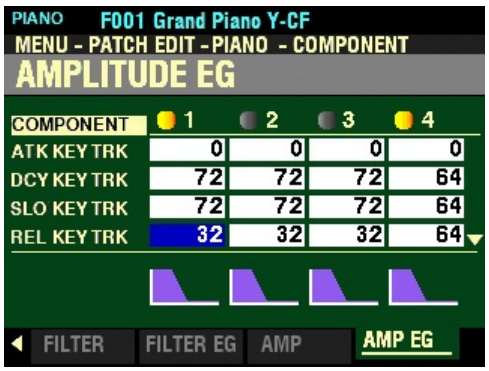
SLOPE RATE KEY TRACK

This Parameter allows you to adjust the Slope Rate of the Amplitude EG by note. You can select from 0 to 127. At 0 each note will sound the same Filter EG. 127 will cause the envelope to respond by the maximum amount.

Turn the VALUE knob to the right to increase the Slope Rate.

Turn the VALUE knob to the left to decrease the Slope Rate.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "REL KEY TRK" should be highlighted.

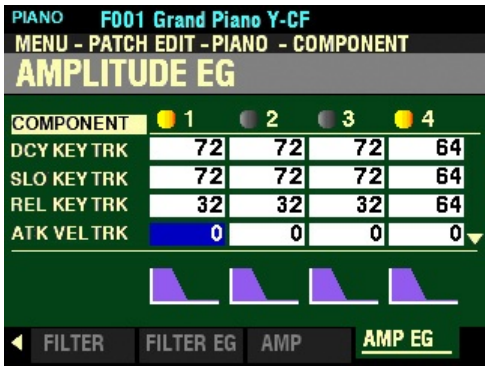
RELEASE RATE KEY TRACK

This Parameter allows you to adjust the Release Rate and amount of the Amplitude EG by note. You can select from 0 to 127. At 0 each note will sound the same Amplitude EG. 127 will cause the envelope to respond by the maximum amount.

Turn the VALUE knob to the right to increase the Release Rate.

Turn the VALUE knob to the left to decrease the Release Rate.

From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "ATK VEL TRK" should be highlighted.

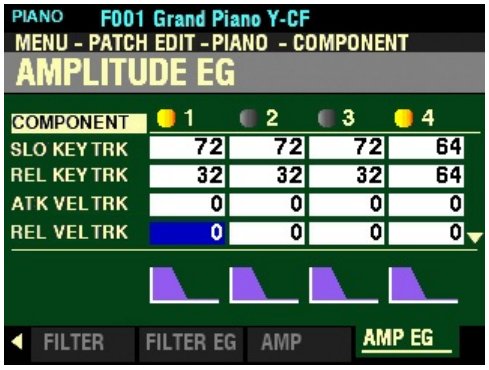
ATTACK VELOCITY TRACK

This Parameter allows you to adjust the Attach Rate of the Amplitude EG by key velocity. You can select from 0 to 127. A higher value will result in a slower Attack.

Turn the VALUE knob to the right to increase the Attack Rate.

Turn the VALUE knob to the left to decrease the Attack Rate.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "REL VEL TRK" should be highlighted.

RELEASE RATE KEY TRACK

This Parameter allows you to adjust the Release Rate of the Amplitude EG by key velocity. You can select from 0 to 127. A higher velocity will result in a longer Release.

Turn the VALUE knob to the right to increase the Release Time.

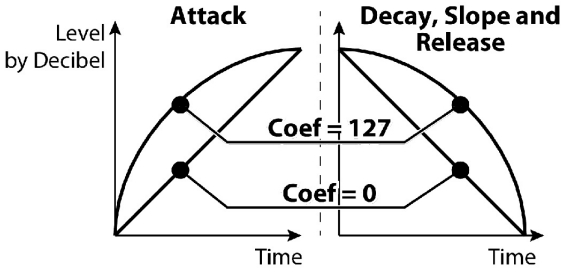
Turn the VALUE knob to the left to decrease the Release Time.

NOTE: The Velocity Parameter in the COMBINATION Edit Menu must be "ON" (values 1 ~ 4) in order to hear the effect of Velocity Tracking.

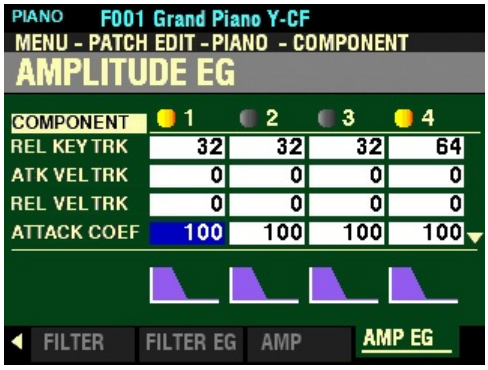
WHAT IS A "COEFFICIENT?"

In mathematics, a coefficient is a value used as a multiplier of some other property. For example, 6X denotes 6 times X. In this case 6 is the coefficient and X is the variable.

The diagram shown below illustrates this.



From the screen shown at the bottom of the previous page, press the DIRECTION "▼" button once.



The box to the right of "ATTACK COEF" should be highlighted.

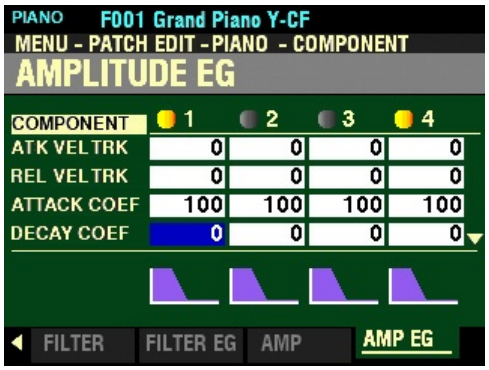
ATTACK COEFFICIENT

This Parameter allows you to adjust the Attack contour for each envelope zone. You can select from 0 to 127. A higher value creates a linear taper suitable for an "upward" level. A lower value creates an exponential taper suitable for a "downward" level.

Turn the VALUE knob to the right to increase the Attack Contour.

Turn the VALUE knob to the left to decrease the Attack Contour.

From the screen shown on the previous page, press the DIRECTION "▼" button once.



The box to the right of "DECAY COEF" should be highlighted.

DECAY COEFFICIENT

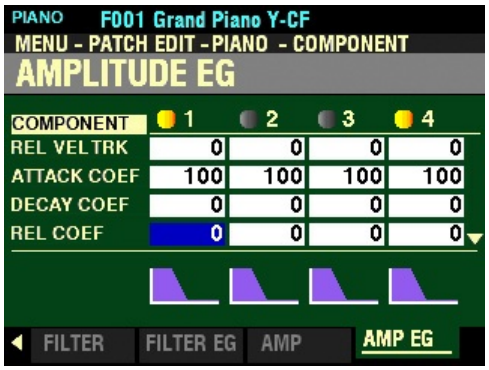
This Parameter allows you to adjust the Decay contour for each envelope zone. You can select from 0 to 127. A higher value creates a linear taper suitable for an "upward" level. A lower value creates an exponential taper suitable for a "downward" level.

Turn the VALUE knob to the right to increase the Decay Contour.

Turn the VALUE knob to the left to decrease the Decay Contour.

NOTE: The Decay Coefficient controls both Decay and Slope zones.

From the above screen, press the DIRECTION "▼" button once.



The box to the right of "REL COEF" should be highlighted.

RELEASE COEFFICIENT

This Parameter allows you to adjust the Release contour for each envelope zone. You can select from 0 to 127. A higher value creates a linear taper suitable for an "upward" level. A lower value creates an exponential taper suitable for a "downward" level.

Turn the VALUE knob to the right to increase the Release Contour.

Turn the VALUE knob to the left to decrease the Release Contour.

From the screen shown at the bottom of the previous page, press the PAGE "▶" button once. The MULTI EFFECT 1 Page should now display.

♦ MULTI EFFECT 1

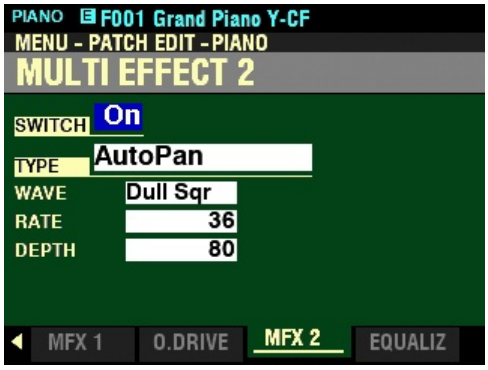
This Parameter allows you to adjust the Multi Effects 1 (Tremolo, Wah-Wah, Ring Modulator, Compressor) for each PIANO/ENSEMBLE Patch.

From the above screen, press the PAGE "▶" button once. The OVERDRIVE Page should now display.

♦ OVERDRIVE

This Parameter allows you to adjust the Overdrive effect in this Section.

From the screen shown at the bottom of the previous page, press the PAGE "▶" button once. The MULTI EFFECT 2 Page should now display.



♦ MULTI EFFECT 2

This Parameter allows you to adjust the Multi Effects 2 (AutoPan, Phaser, Flanger, Chorus, Delay) for each PIANO/ENSEMBLE Patch.

From the above screen, press the PAGE "▶" button once. The EQUALIZER Page should now display.

♦ EQUALIZER

This Parameter allows you to adjust the Equalizer in this Section.

NOTE: The MULTI EFFECT 1&2, OVERDRIVE and EQUALIZER effects work the same way for all Voice Sections of your SK PRO. For information about these effects and the Parameters associated with each of them, please consult the **MULTI EFFECTS / OVERDRIVE / EQUALIZER** chapter of this Guide.

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