KAWAI

K5000S

Advanced Additive Synthesizer

Owner's Manual

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN

AVIS : RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR.

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lighting flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the leterature accompanying the product.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.
ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

This musical instrument is designed for household use, not commercial use.

FCC Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and the receiver.

Connect the equipment into an outlet on a different electrical circuit from the receiver.

Consult the dealer or an experienced radio/TV technician for help.

Canadian Radio Interference Regulations

This instrument complies with the limits for a class B digital apparatus, pursuant to the Radio Interference Regulations, C.R.C., c. 1374.

Important Safety Instructions

* Read Instructions – This Owner's Manual contains valuable information that will help you make full use of the instrument's many capabilities. All the safety and operating instructions should be read before the product is operated.

* Retain Instructions – The safety and operating instructions should be retained for future reference.

* Heed Warnings – All warnings on the product and in the operating instructions should be adhered to.

* Follow Instructions – All operating and use instructions should be followed.

* Water and Moisture – The appliance should not be operated or stored near water or other moisture - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.

* Power Cord Protection - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

* Ventilation – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or similar surface that may block the ventilation openings; or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

* Heat – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

* Noise – Keep the appliance away from electrical motors, neon signs, fluorescent light fixtures, and other sources of electrical noise.

* Shocks – Protect the appliance from physical shocks and impact. Never move it while it is in operation.

* To reduce the risk of injury, close supervision is necessary when a product is used near a children.

* Do not touch the power plug with wet hands. There is a risk of electrical shock. Treat the power cord with care as well. Stepping on or tripping over it can break or short-circuit the wire inside.

* Do not place this product on an unstable or slant cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Besides, the unit may malfunction. Use only with a cart, stand or table recommended by KAWAI, or sold with the product.

* The appliance, in combination with an amplifier and speakers or headphones, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.

* This product may be equipped with a polarized line plug (one blade wider than the other). This is a safety feature. If you're unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.

* Always turn the power off when the appliance is not in use. The power supply cord of the product should be unplugged from the outlet when left unattended or unused for long period of time. Otherwise, fire or other hazards may be caused due to lightning and power-line surges, etc.

* Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

* Unplug the appliance and power supply cord from the wall outlet immediately and refer servicing to qualified service personnel under the following conditions:
    a) When the power-supply cord or plug is damaged.
    b) If liquid has been spilled, or objects have been fallen into the product.
    c) If the product has been exposed to rain or water.
    d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by this manual as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
    e) If the product has been dropped or damaged in any way.
    f) When the product exhibits a distinct change in performance - this indicates a need for service.

* Protect the product from direct sunlight, extremes in temperature (such as inside your car on a warm day) or humidity, dusty environment, or vibration (especially during transportation).

* Always turn down the volume(s) of all instruments (such as guitar or keyboard) before connecting or disconnecting to the instrument.

* Make sure that all POWER switches are off before changing equipment connections.

* Check all equipment connections before applying the power.

* Do not connect to the same circuit as a heavy load or equipment that generates line noise.

* Unplug this product from the wall outlet before cleaning.

* Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning. (Clean the instrument with a soft cloth, a mild detergent, and lukewarm water.) Never use harsh or abrasive cleansers or organic solvents.

* Servicing – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

* Do not disassemble or attempt to modify the appliance. Opening or removing covers may expose you to dangerous voltage.

CONTENTS

EFFECT SECTION _____ 61

WELCOME TO THE K5000S

The K5000S is an Advanced Additive Synthesizer that combines realtime performance features and unique synthesis capabilities into a single unit.

ADVANCED ADDITIVE TONE GENERATOR

The K5000 series updates the famous K5 synthesizer tone generator and its unique additive harmonic synthesis approach. The Advanced Additive Tone Generator contains 32 source generators, which depending on how they are used, can yield up to 32 voice polyphony.

PCM samples can also be mixed with additive sources. As few as one or as many as six sources can be used to make a single sound. For example, a PCM wave of a piano hammer can be superimposed with the sound of the piano string created by additive harmonics.

128 BAND FORMANT FILTER

A new addition to the Advanced Additive tone generator is the 128 Band Formant Filter, which can used as a Parametric EQ or several other configurations. The Formant Filter is completely controllable by envelopes or LFOs.

MACRO CONTROL

Unique to the K5000S model are the macro controls for major sound parameters, available on the front panel for instant access. In addition, four user controls are programmable for each patch.

PROGRAMMABLE ARPEGGIATOR

The K5000S Programmable Arpeggiator, features a wide range of control, ideal for use in Tekno and other modern musical styles.

DIGITAL EFFECTS SYSTEM

The K5000S contains an advanced digital effects processor (DSP), which allows four individual effects of chorus, delay, distortion, etc., in addition to reverb and a graphic equalizer.

When playing a single sound, individual *sources* can be routed to individual effects; when playing multiple sounds in Multi mode, individual *sounds* can be routed to individual effects.

IF YOU NEED HELP...

Please consult your local Kawai representative or contact the Kawai distributor in your country.

ABOUT THE KEYBOARD'S INTERNAL MEMORY

The contents of the keyboard's internal memory (such as tone data) and system data may be lost if you turn off the power while writing, saving or loading data.

Do not turn off the power while writing, saving or loading data.

If you have lost your system data, use the following procedure to reload the system data from the included SYSTEM DISK.

1. Insert the SYSTEM DISK into the disk drive.
2. Press the F2 button beside the LCD.
3. Turn the power on while holding down the F2 button. The installation will begin.
4. It will take about 8 minutes for the installation. You are now ready to use the K5000S.

NOTE:

* If you install this SYSTEM disk, the entire memory will be reset to factory preset setting and your own personalized data you created will be lost. You may not be able to back up the internal memory. So, we recommend that you save your important data on a floppy disk.

* It is not possible to copy this STSTEM DISK. Retain the SYSTEM DISK with proper care.

* The contents of the keyboard's internal memory may be lost if you turn off the power while installing system data.

Do not turn off the power while installing system data.

If you lost system data, take the following procedure using the included SYSTEM DISK and load system data.

ABOUT THE MEMORY EXPANSION KIT

The K5000S MEMORY EXPANSION KIT may be available in your country. For more information, please consult your local Kawai representative or contact the Kawai distributor in your country.

K5000S FRONT PANEL

COMMON SECTION
These keys are used for functions common to all modes of operation

ARPEGGIATOR SECTION
These controls adjust the on-board arpeggiator.

MACRO CONTROLS
Instant control of common parameters.

VOLUME CONTROLS
These control the output level of the instrument.
There is one for each pair or outputs.

DISK DRIVE
PC-compatible 2HD/2DD
for sounds

SWITCHES
Programmable for
different functions

PORTAMENTO
Turns on Portamento for
sounds that are
programmed for it.

MODULATION WHEEL
PITCH BEND WHEEL
HEADPHONE JACK

ARPEGGIATOR
Turns the Arpeggiator On and Off

SECTION
Switch between different parts of a Multi Patch

VALUE DIAL
The Function keys select a parameter,
the Value Dial changes its value.

LCD SCREEN
Shows the status of the the instrument
and the function key names.

BANK SELECT
These keys select any of the Single or Multi banks

QUICK MIDI
Send any MIDI message from here.

POWER
It all starts here....

PATCH SELECT
Choose patches from each bank

FUNCTION KEYS
Left and Right, the functions of these keys change on each page.
The functions are written on the screen.

SINGLE EDIT PAGE SELECT
In Single Edit mode, the Patch Select keys double as editing shortcuts.

K5000S REAR PANEL

POWER SWITCH
It all starts here...

PROGRA
Footswitches connected he

K5000 S

POWER RECEPTICLE
Apply grounded power
(North America: 110/120 V AC, 50/60Hz
Europe, Asia, Australia: 220/240V AC, 50/60Hz)

MIDI IN/OUT/THRU
Connect your other MIDI devices here.

,MMABLE FOOTSWITCHES
re can be programmed for different functions.

CAUTION

AVS : RISQUE DE CHOC ÉLECTRONIE ...
WARNING : ...

KAWAI
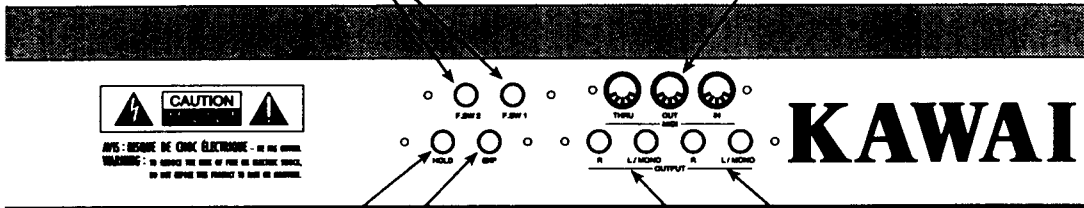
EXPRESSION PEDAL
Connect a volume pedal here
for expressive control.

HOLD PEDAL
Connect a sustain pedal here.

MAIN OUTPUTS
Mono or Stereo

INDIVIDUAL OUTPUTS
Mono or Stereo, individual sounds
can be routed to these outputs.
If not connected, these signals appear
at the Main Output.

GUIDED TOUR

CONNECTIONS

Naturally, the first thing you ought to do with your K5000S is plug it in!

POWER

Using the cable provided, connect the POWER jack to an AC outlet.

AUDIO

There are two pairs of audio output jacks on the back, plus the PHONES jack on the front (in front of the Pitch Bend wheel). This gives you a few choices, depending on what you're connecting to:

SOLO PLAY
Just plug your headphones into the PHONES jack on the front and go at it. There's plenty of power for phones. Use the MAIN volume slider to control the volume.

INSTRUMENT AMPLIFIER
If you are plugging into an amp, connect the MAIN L/MONO output jack on the rear panel to your amplifier. All sounds will be mixed to this single cable.

STEREO SYSTEM
To connect to a music system or amplified speakers, use the *two* MAIN outputs (L & R) to get stereo. You'll need adapters or adapting cable to convert the 1/4" Phone jacks on the K5000S to the RCA pin jacks on your stereo. Make sure to connect the K5000S to a LINE, AUX, or TAPE input on your stereo.

MIXING CONSOLE
If you've got more than two inputs available, by all means connect the two MAIN outputs *and* the two INDIVidual outputs to your mixer. In this way, you can route certain sounds (piano, strings) through the reverb unit to the Main Outputs; and send others (bass drum, bass guitar) directly to the INDIVidual outputs *without* reverb, or for special studio processing.

When connections are made to the INDIVidual output jacks, the INDIVidual volume slider on the front panel becomes active. You can adjust each pair of outputs independently.

PEDALS

HOLD
Connect a Hold pedal to the HOLD jack on the rear panel. Use a Momentary On footswitch, like the Kawai model F-1. This acts like a piano-style damper pedal, sustaining after releasing keys.

EXPRESSION
You can connect a Volume pedal (Kawai model V-20X) to the EXPression jack on the rear panel.

You can connect additional momentary footswitches, like the Kawai model F-1, to the Footswitch jacks as well. These can be programmed to do a range of things, such as change octave or turn the arpeggiator on and off.
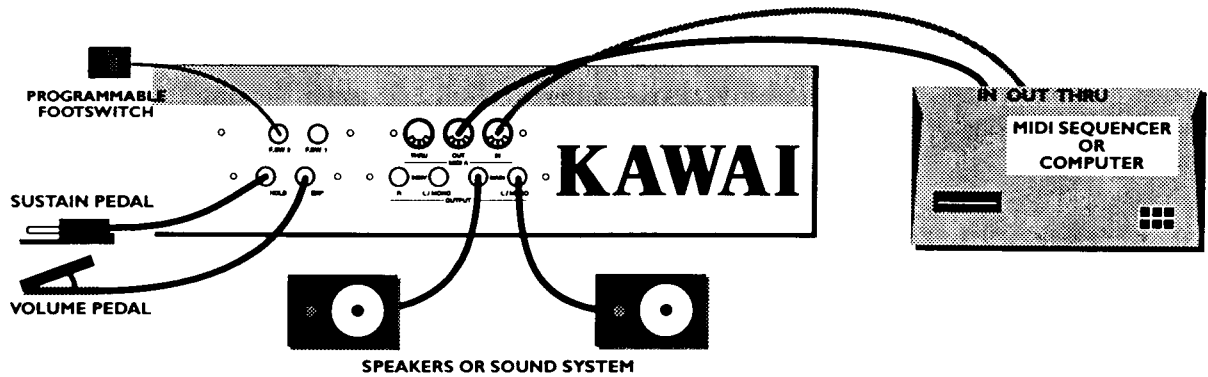
MIDI

There is a full set of MIDI ports on the rear panel of the K5000S: IN, OUT, and THRU jacks. You don't need to connect *any* of them, but if you want to talk to your other MIDI gear, here's how to connect them:

EXTERNAL KEYBOARD OR DRUM CONTROLLER
If you want to play the K5000S from another keyboard, MIDI drum or Guitar controller, connect it to the MIDI IN jack.

You will need to set the K5000S's Unit Channel to match the input jack and the MIDI channel the device transmits on. Press SYSTEM, then MIDI (**F5**), then Unit CH (**L2**).

SEQUENCER OR COMPUTER
If you want to use the K5000S with a sequencer or computer, you will need two cables. Connect the MIDI OUT of the K5000S to the MIDI IN of the computer, and the MIDI OUT of the computer to the MIDI IN of the K5000S

You will need to adjust the K5000S's Channels (in System of Multi) to match the sequencer. Depending on your configuration, you may also want to turn Local Control OFF – press SYSTEM, then MIDI (**F5**), then Local (**L1**).

ADDITIONAL SOUND MODULES
To use the K5000S to control other sound modules, connect a cable from the K5000S's MIDI OUT jack to the MIDI IN jack of the other device. If you have more than one device, you can loop from the MIDI THRU of the first device to the MIDI IN of the second.

PLAY THE DEMO

Now that everything is connected, lets see what the K5000S can do!

In the package with your K5000S is a demonstration diskette. Playing this will give a good picture of the K5000S's capabilities.

PLAYING THE DEMO

- With the Power OFF, insert the Supplement Disk into the disk drive on the left side of the instrument.
- Press and hold the F1 button, and while holding, turn on the power.
- The K5000S will startup, and a special Demo Play screen will appear.

[screen]

- Press F2 or F3 to select a song, then press F1 to Play the song.
- Press F1 again to stop.
- Press F2 or F3 to select a new song, or F4 to exit to the K5000S main screen.

PLAYING SOUNDS

Below is the K5000S Single Play screen. This screen appears after turning on the power.

```
A001         Runner
                        ARP ♪  UP/DWN2
USR1 Level    Pitch       SW1  OctUp
USR2 LFO spd  Pitch       SW2  OctDown
USR3 Vibrato  Pitch      FSW1  Arpegio
USR4 Panpot   Pitch      FSW2  -------
```

SINGLE SOUNDS

The K5000S contains two banks of Single sounds – A & D. Press the SINGLE button to switch between the two banks. Each bank is organized into groups of 10 patches.

There are up to 128 patches available in a bank, but the patch memory can used up by fewer complex patches.

What happened to B & C? They are used on the companion unit – the K5000W.

CHOOSING A SINGLE SOUND

- If not already selected, choose the SINGLE bank, using the SINGLE button on the front panel.
- Choose a group: press one of the buttons labeled 00 – 12 on the front panel. A menu of the patches in the group appears on the screen.

```
Single Bank Menu

                      A005 Driver
A001 Runner           A006 Reznator
A002 Gorgizmo         A007 Goom
A003 Dist Pulse       A008 Heaven
A004 Telmetal         A009 Creaturz
```

- Choose a patch: press one of the buttons labeled 0 – 9 on the front panel. The single patch appears on the screen.

```
A001         Runner
                        ARP ♪  UP/DWN2
USR1 Level    Pitch       SW1  OctUp
USR2 LFO spd  Pitch       SW2  OctDown
USR3 Vibrato  Pitch      FSW1  Arpegio
USR4 Panpot   Pitch      FSW2  -------
```

MODIFYING A SOUND

On the left side of the keyboard are 12 Macro Controls which can be used to instantly change the sound quality. In addition, there are four Assignable controls on the bottom row – User 1 through User 4. The screen explains the functions of these controls, as shown in the illustration above.

These do not change the preset values of the patch, which can only be changed by *editing* the patch – described starting on page 24.

MULTI SOUNDS

Multi Patches are *combinations* of up to four Single patches. They can be arranged in layers, key splits, velocity splits, channel splits, or any combination.

CHOOSING A MULTI

There are 64 Multi patches, M01 – M64.

- Choose the Multi bank: press the MULTI button on the front panel.
- Choose a group: press one of the buttons labeled 00 – 06 on the front panel. A menu of the patches in the group appears on the screen.

```
Multi Bank Menu

   M10  Komradds      M15  E-Normus
   M11  Addalogg      M16  Raunch
   M12  Addalog2      M17  TakeOver
   M13  CashFlow      M18  Frostbyt
   M14  WINBRASS      M19  Wilder
```

- Choose a patch: press one of the buttons labeled 0 – 9 on the front panel. An individual Multi patch appears on the screen.

```
 M07          Moonrise
Chimera    Runner    SynStrg1  GOOM
1 ch       2 ch      3 ch      4 ch
Trns Vol   Trns Vol  Trns Vol  Trns Vol
```

MODIFYING A MULTI

On the screen there are Transpose and Volume sliders for each Section, as shown in the illustration above. Push the button underneath the desired slider, then change the value with the VALUE dial. The slider image will also move according to your adjustment.

These do not change the preset values of the patch, which can only be changed by *editing* the Multi patch – described starting on page 100.

PROGRAMMABLE ARPEGGIATOR

The Programmable Arpeggiator offers a wide range of options to mix preset control with live performance. The following explanation only hints at what is possible...

- Press SYSTEM, then F2 (Arp) to reach the Arpeggiator Common Page.
- Set the controls as shown in the screen –

Note (L1) = 48

RangeLo (R1) = C –2

Range Hi (R2) = C 3

```
 Arpeggiator              Common  Parameter

> Note(UP-RND)♪ 48      RangeLO          C  -2  <
> Gate           50%    RangeHI          C   3  <
> Level         100%    Play  Mode  Altnate  <
       ON     INT
       Velo  Clk                        Edit
```
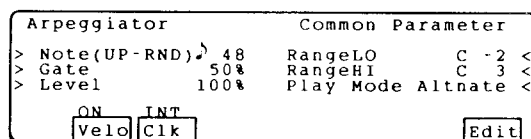
- Select Single Patch A006 (Reznator).

```
 A006        Reznator
                           ARP ♪  UP/DWN2
 USR1 HramOdd  --------     SW1 HarmMax
 USR2 HramEvn  --------     SW2 OctUp
 USR3 Tremolo  --------     FSW1 Arpegio
 USR4 Panpot   --------     FSW2 HE#1
```

ARPEGGIATOR

KY ORD RND CHD TRG
DWN CHD GATE
U/D 2 SQ PTN 1
U/D 1 SQ PTN 2
UP USER
PATTERN

2 3 RND HOLD
1 1 HOLD
3 2 &
2 3 RETRG
1 RND
MODE
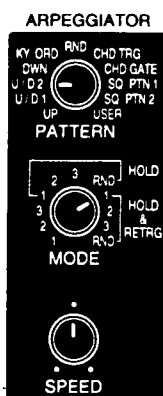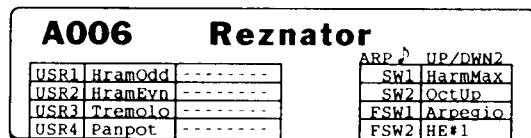
SPEED

- Set the Arpeggiator Controls (left of the screen, next to the Macro Controls) as follows:

Pattern = U/D 2

Mode = Hold and Retrig 1

Speed = around 12 o'clock (straight up)

- Turn on the arpeggiator by pressing the ARPEGGIATOR button – it will light up red.

ARPEGGIATOR

- In the lower half of the keyboard, play a four note chord. The notes will arpeggiate. You can release the keys and the notes will still play.
- You can play a melody on top of this arpeggio with the right hand.

SINGLE SECTION

SINGLE PLAY

Pressing the SINGLE key on the right side of the keyboard brings up the Single Play window.

```
┌─────────────────────────────────────────────┐
│  A001        Runner                          │
│                        ARP ♪  UP/DWN2         │
│  ┌────┬───────┬──────┐  ┌────┬────────┐      │
│  │USR1│Level  │Pitch │  │ SW1│OctUp   │      │
│  │USR2│LFO spd│Pitch │  │ SW2│OctDown │      │
│  │USR3│Vibrato│Pitch │  │FSW1│Arpegio │      │
│  │USR4│Panpot │Pitch │  │FSW2│------- │      │
│  └────┴───────┴──────┘  └────┴────────┘      │
└─────────────────────────────────────────────┘
```

The name of the patch is displayed, as well as the four user parameters and arpeggiator settings.

CHANGING SINGLE PATCHES

Single patches are arranged in 2 banks, A & D. To change banks, press SINGLE again. Each bank is arranged in groups of 10 patches. To select a different patch, use the Patch Select keys 0 through 9 on the right side of the panel. To change groups, use the Patch Select keys 00 through 12. A menu screen appears as shown below.

```
┌─────────────────────────────────────────────┐
│ Single Bank Menu                             │
│  ┌────────────────────┬────────────────────┐ │
│  │                    │ A005  Driver       │ │
│  │ A001  Runner       │ A006  Reznator     │ │
│  │ A002  Gorgizmo     │ A007  Goom         │ │
│  │ A003  Dist Pulse   │ A008  Heaven       │ │
│  │ A004  Telmetal     │ A009  Creaturz     │ │
│  └────────────────────┴────────────────────┘ │
└─────────────────────────────────────────────┘
```

This screen lists the patches in the group. To select one press the 0-9 key corresponding to the last digit of the patch number. A different patch will play, with the display as shown at the top of this section.

NOTE:
In the Single Bank, there is not a fixed number of patches. Instead there is a fixed *amount of memory* for the patches. If your patches are simple, more of them can be stored. As a result, all patch locations may not be available.

MODIFYING PATCHES

In Single Play mode, the Macro Controls on the left of the instrument are available for instant edit. These controls are described below. They add and subtract from the original values contained in the patch, and affect all sources.

There are also four user controls which can be programmed as part of each patch. The programmed function is displayed on the main screen (USR1 – USR4).

```
┌─────────────────────────────────────────────┐
│  A001        Runner                          │
│                        ARP ♪  UP/DWN2         │
│  ┌────┬───────┬──────┐  ┌────┬────────┐      │
│  │USR1│Level  │Pitch │  │ SW1│OctUp   │      │
│  │USR2│LFO spd│Pitch │  │ SW2│OctDown │      │
│  │USR3│Vibrato│Pitch │  │FSW1│Arpegio │      │
│  │USR4│Panpot │Pitch │  │FSW2│------- │      │
│  └────┴───────┴──────┘  └────┴────────┘      │
└─────────────────────────────────────────────┘
```

HRM LO

This control adjusts the level of the lower harmonics. This does not adjust the *low notes*, rather it adjusts the *low end* of any note.

HRM HI

This control adjusts the level of the upper harmonics. This does not adjust the *high notes*, rather it adjusts the *high end* of any note.

EVEN/ODD

This control adjusts the balance of even versus odd harmonics. A positive value boosts the even harmonics and cuts the odd ones, a negative value cuts the even harmonics and boosts the odd ones.

FF BIAS

This control adjusts the Formant Filter Bias, or center frequency.

FF SPEED

This control adjusts the speed of the LFO or Envelope controlling the Formant Filter.

FF DEPTH

Adjusts the Formant Filter LFO or Envelope Depth.

CUTOFF

This adjusts the filter cutoff frequency. Turn this up to make the sound brighter.

RESONANCE

This adjusts the filter resonance.

VELOCITY

Scales the velocity plus or minus. Use this control to adjust the way the patch responds to the dynamics of your playing.

ATTACK

This adjusts the envelope attack time for the DCA and DCF. Turn it down (minus value) to make the attack *sharper*, turn it up to make the attack *smoother*.

DECAY

This adjusts the initial decay for both the DCA and DCF envelopes. Turn it down (minus value) to make the decay *sharper*, turn it up to make the decay *smoother*.

RELEASE

This adjusts the release or final decay time for both the DCF and DCA envelopes. Turn it up to make the sound fade out longer *after* releasing the keyboard.

SELECTING A USER ARPEGGIATOR PATTERN

There are eight user arpeggiator patterns that can be stored in the K5000S.

TO SELECT A USER PATTERN:
- Turn the Arpeggiator Pattern control to USER.

- Turn the VALUE dial to select the desired user arpeggiator pattern.

For information about programming a pattern, see page 109

SINGLE EDIT

Pressing EDIT brings up the Edit Menu. All editing pages can be accessed from this page, with the knobs on the left, or by using the Patch Select buttons to the right of the screen – see the legends *underneath* the buttons.

```
A006 Rezonator                    Menu
> Common              Additive <
> DCO              LFO & Copy <
> DCF                Control <
> DCA                 Effect <
      S1 A  S2 A  S3 A  S4 A
```
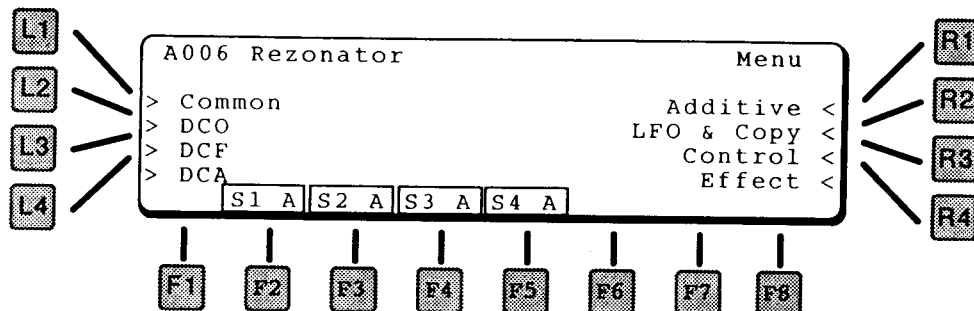
LI   COMMON
Jumps to the Common section, see page 25.

L2   DCO
Jumps to the DCO section, see page 30.

L3   DCF
Jumps to the DCF section, see page 32.

L4   DCA
Jumps to the DCA section, see page 35.

RI   ADDITIVE
Jumps to the ADD section, see page 37.

R2   LFO & COPY
Jumps to the LFO section, see page 51.

R3   CONTROL
Jumps to the Control section, see page 53.

R4   EFFECT
Jumps to the Effect section, see page 61.

NOTE:
Throughout the various pages of Single Edit mode, the F2 through F7 keys can be used to turn individual sound sources on or off.

EXITING EDIT MODE

Press EXIT to return to Play Mode. Depending on which page is displayed, you may need to press EXIT more than once. If you have made any changes to the patch, an alert message appears, asking if you want to "Save". Press WRITE to save, or **F8** (Quit) to exit without saving. To continue editing, press EDIT.

COMMON

The Common section contains several pages of basic parameters such as the patch name, below.

```
┌─────────────────────────────────────────────────┐
│ A001  Runner                          Common     │
│ > ->     Name Runner                             │
│ > <-                                             │
│   ! " # $ % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? │
│   @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [   ] ^ _ │
│   ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } - │
│                                           More   │
└─────────────────────────────────────────────────┘
```
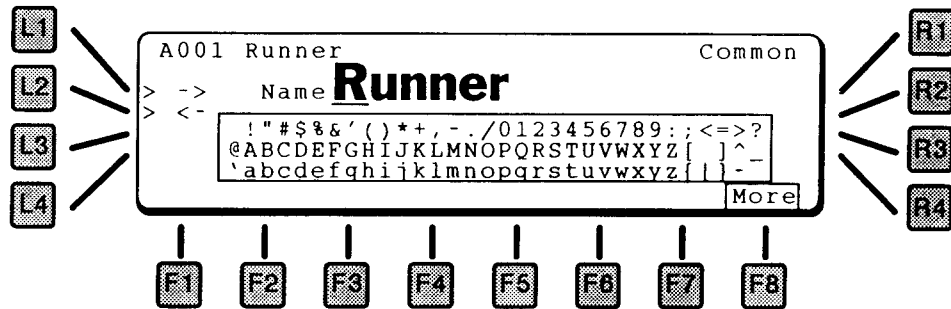
L1 and L2 move through the name forward and back, respectively. Use the Value dial to select a letter.

F8 MORE
Advances to the next page of Common parameters, below.

```
┌─────────────────────────────────────────────────┐
│ A001  Reznator                        Common     │
│ > Volume          128    Sources         6  <    │
│ > Poly            POLY   AM             OFF  <    │
│ > Portamento      OFF                             │
│ > Porta Speed       0                            │
│ Back                                      More   │
└─────────────────────────────────────────────────┘
```
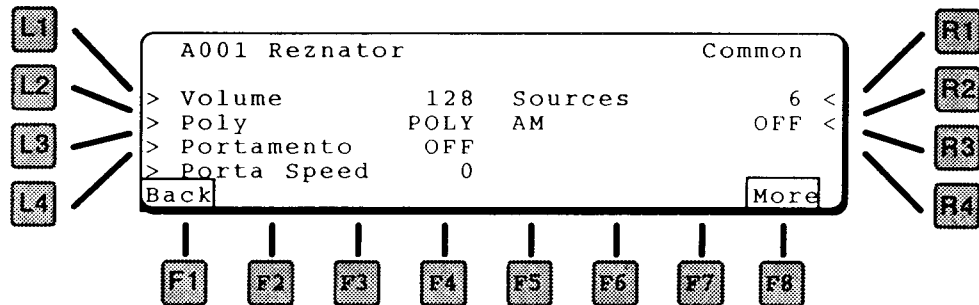
LI VOLUME
Sets the master volume for the program.

L2 POLY
Sets the polyphonic mode for the patch.

POLY   Standard polyphonic mode

SOLO1 Monophonic mode. Each key played re-triggers the envelopes.

SOLO2 Monophonic mode. Sustained keys played *do not* retrigger the envelopes.

L3 PORTAMENTO
This turns on Portamento for the patch. When ON, the sound will slide to each new pitch.

L4 PORTAMENTO SPEED
Sets the speed of the glide. The Portamento changes pitch at a constant rate – a larger interval takes longer than a shorter one.

RI SOURCES
Sets the number of sources for the patch. Patches can have up to six sources. Remember that the more sources used in a patch, the fewer notes that can be played.

R2 AM

Selects sources for Amplitude Modulation. One source can be set to modulate an adjacent source, i.e., 1>2.

FI BACK

Goes back to the previous Common page, above.

F8 MORE

Goes to the Macro and Switch Controller pages, below.

MACRO CONTROLLER

The next two pages control the functions of the four assignable user controls. Each control can manipulate two parameters.

Modulation Destinations are the same as those for the other controllers. See page 56 for a listing.

```
  A001 Reznator          Macro Controller
     User1                  User2
  > Dest1       Level    Dest1    LFO Speed  <
  > Depth1       +16     Depth1        +10   <
  > Dest2       Pitch    Dest2       Pitch   <
  > Depth2         0     Depth2          0   <
  Back                                   More
```

LI DESTI
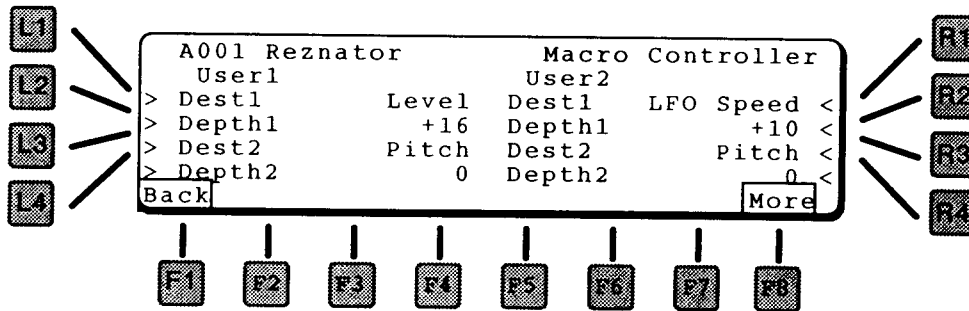
Selects one (of two) destinations for User Control 1.

L2 DEPTHI

Sets the amount of control for Destination 1.

L3 DEST2

Selects the other destination for User Control 1.

L4 DEPTH2

Sets the amount of control for Destination 2.

RI DESTI

Selects one (of two) destinations for User Control 2.

R2 DEPTHI

Sets the amount of control for Destination 1.

R3 DEST2

Selects the other destination for User Control 2.

R4 DEPTH2

Sets the amount of control for Destination 2.

F8 MORE

Goes to User Controls 3 &4.

```
         A001 Reznator          Macro Controller
            User3                   User4
         > Dest1   Vibrato DP   Dest1      Panpot <
         > Depth1         +16   Depth1        +31 <
         > Dest2        Pitch   Dest2       Pitch <
         > Depth2           0   Depth2          0 <
         Back                               More
```

LI DEST I
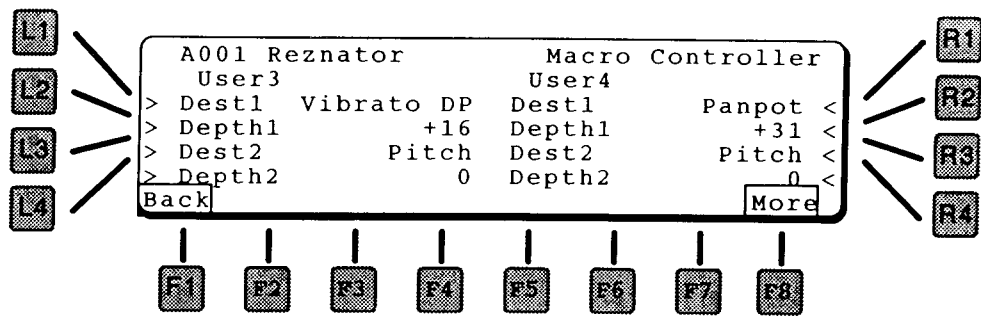
Selects one (of two) destinations for User Control 3.

L2 DEPTH I

Sets the amount of control for Destination 1.

L3 DEST2

Selects the other destination for User Control 3.

L4 DEPTH2

Sets the amount of control for Destination 2.

RI DEST I

Selects one (of two) destinations for User Control 4.

R2 DEPTH I

Sets the amount of control for Destination 1.

R3 DEST2

Selects the other destination for User Control 4.

R4 DEPTH2

Sets the amount of control for Destination 2.

F8 MORE

Goes to the Switch Controller page, below.

SWITCH CONTROLLER

This page contains settings for the programmable buttons below the disk drive, and the programmable footswitch jacks on the rear panel.

NOTE:
The settings on this page take effect only if the Switches in the System page are set to Single – see page 107.

```
         A001 Reznator          Switch Controller

         > Switch1      OFF   FootSw1        OFF <
         > Switch2      OFF   FootSw2        OFF <
         Only effective if System FSW is "Single"
         Back
```
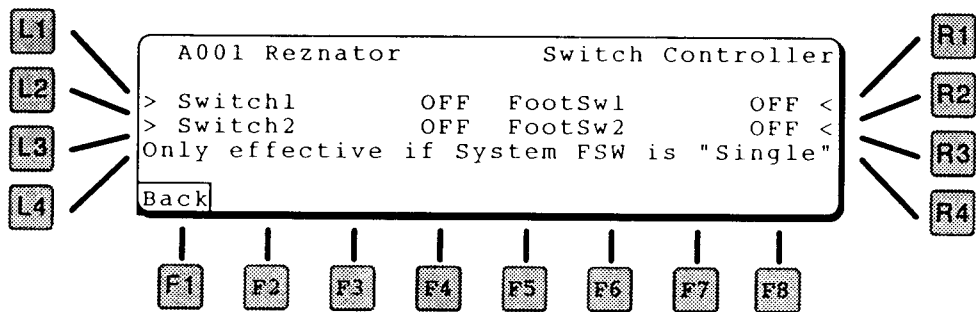
The switches can be set to any of the following functions:

OFF
Switch will have no effect.

HARM MAX
Sets all harmonics to maximum level.

HARM BRIGT
Sets all harmonics into a bright configuration (higher harmonics louder than lower harmonics).

HARM DARK
Sets harmonics into a dark configuration (first harmonic is set to maximum, other harmonics set to successively lower levels – sharp dropoff rate).

HARM SAW
Sets harmonics into a configuration that generates a Sawtooth wave (first harmonic is set to maximum, other harmonics set to successively lower levels – smooth dropoff rate).

SELECT LOUD
Switches the harmonics selection to Loud, regardless of the current setting.

ADD OCT
Adds the "Octave" harmonics – those tuned to octaves above the fundamental pitch: 2, 4, 8, 16, 32 – to the current harmonic series.

ADD 5TH
Adds the "fifth" harmonics – those tuned to a fifth above the fundamental pitch: 3, 6, 12, 24, 48 – to the current harmonic series.

ADD ODD
Adds the odd numbered harmonics – 3, 5, 7, etc. – to the current harmonic series.

ADD EVEN
Adds the even numbered harmonics – 2, 4, 6, etc. – to the current harmonic series.

HE#1
Switches the harmonic envelope rapidly between odd and even harmonics – however the first three harmonics stay on constantly.

HE#2
Sets the harmonic envelope to emphasize attack, and turns on feedback.

HE LOOP
Turns on harmonic envelope looping. See page 42.

FF MAX
Sets the formant filter frequency to maximum.

FF COMB1
Turns on the formant filter LFO at a slow rate.

FF HICUT
Sets the filter frequency low to cut out all the high frequencies.

FF COMB2
Turns on the formant filter LFO at a fast rate.

L1   SWITCH1
Selects the function for switch 1.

L2   SWITCH2
Selects the function for switch 2.

R1   FOOTSW1
Selects the function for footswitch 1.

R2   FOOTSW2
Selects the function for footswitch 2.

DCO

Pressing DCO in the Single Edit menu brings up the following screen which contains the DCO parameters.

```
A001 Runner                                    DCO
> Wave Type      ADD    KS Pitch    50cent <
> PCM Wave No.          Fixed Key     C-1
> Coarse         +24
> Fine           +63
      S1 P  S2 --  S3 A  S4 A  S5 --  S6 --  More
```
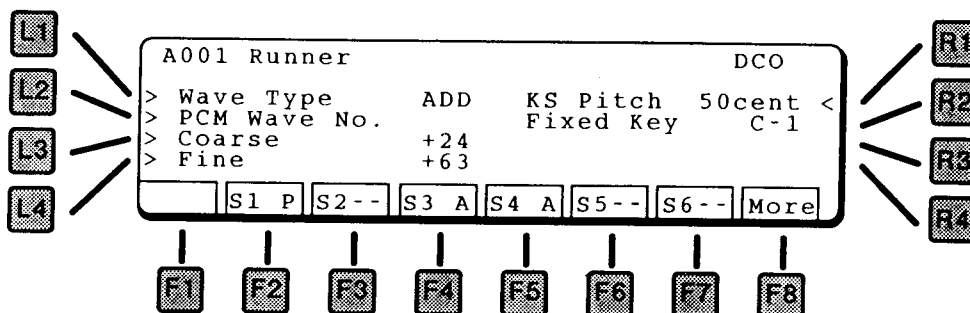
LI   WAVE TYPE

Selects the wave type for the source: ADD for the additive synthesizer, PCM for sample waves.

L2   PCM WAVE NUMBER

Selects the PCM wave to be used. See page 127 for a list of waves.

NOTE:
This has no effect if ADD is the selected wave type.

L3   COARSE

The coarse frequency in semitones. The range is two octaves above or below.

L4   FINE

The fine frequency setting. Use this for detuning the wave to create beating or fullness.

RI   KS PITCH

When the Fixed Key is being used (not Off, below) this parameter adds the key value to control the pitch. This can be used to play in quarter-tones, or to add "stretch" to the tuning. The reference point is the Fixed Key value.
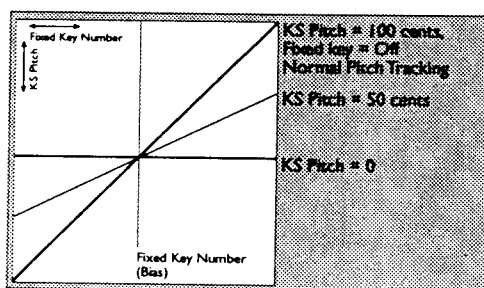
R2   FIXED KEY

Sets the fixed pitch for the source. The range is A-1 to C7. If Off, then normal key tracking applies.

F8   MORE

Goes to the DCO Pitch Envelope page, below.

DCO PITCH ENVELOPE

The DCO Pitch envelope changes the pitch of the sound over time. Many acoustic instruments have small pitch changes during their initial attack – pulling guitar strings and embouchure in wind instruments – which can be simulated using the DCO Pitch Envelope.

Because of its function during the attack phase of the sound, the DCO Pitch Envelope has only attack and decay functions – it does not sustain.

```
        A006  Reznator              Pitch  Envelope
    > Strt L                               Vel to
    > Atak T                            Level      <
    > Atak L                            Time       <
    > Dcay T
    BACK  S1 P  S2-- S3 A  S4 A  S5-- S6--
```
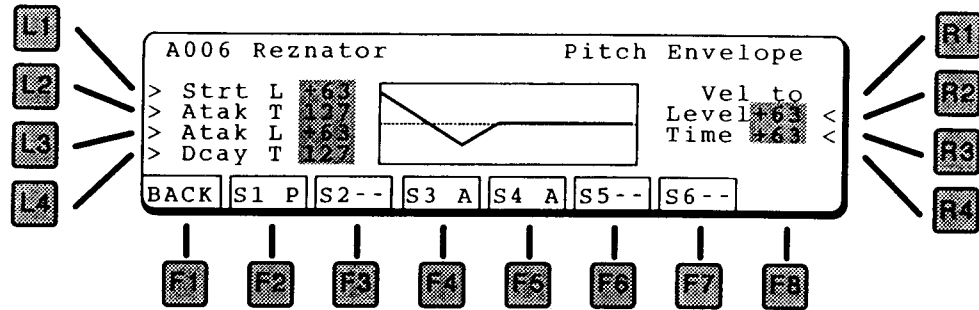
LI   STRT L (STARTING LEVEL)
Sets the starting level for the envelope.

L2   ATAK T (ATTACK TIME)
When a note is played (note on), the envelope will go from the starting level to the Attack Level in this amount of time.

L3   ATAK L (ATTACK LEVEL)
Sets the level after the initial attack.

L4   DECY T (DECAY TIME)
After reaching the attack level, the envelope will then go to zero in this amount of time.

RI   LEVEL (VELOCITY TO LEVEL)
This controls how much the key velocity affects the *amount* of pitch envelope.

R2   TIME (VELOCITY TO TIME)
This controls how much the key velocity affects the *overall time* of pitch envelope.

DCF

Pressing DCF in the Single Edit menu brings up the following screen which contains the DCF parameters.


```
A006  Reznator                                    DCF
> DCF              Active    Resonance          7   <
> Cutoff           127       DCF Level          7   <
> Mode             Lo Pass   KS to Cut          03  <
> Velo Curve       1         Velo to Cut        63
        S1 P  S2 - -  S3 A  S4 A  S5 - -  S6 - -  More
```
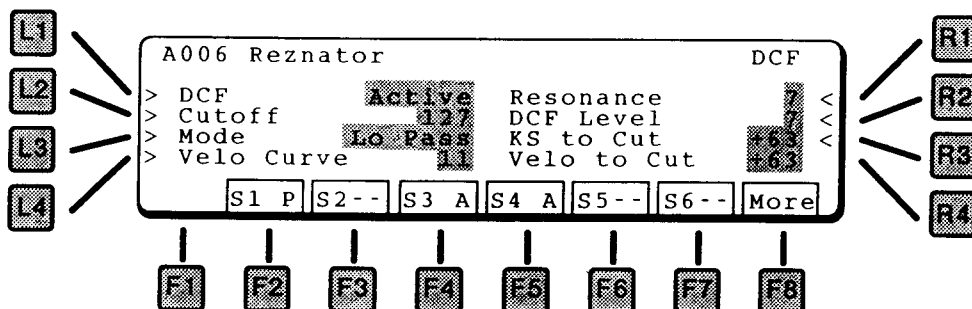
LI DCF

This turns on the DCF. If Active, the signal is routed through the DCF. If set to Bypass, the sound does not pass through the DCF.

L2 CUTOFF

Sets the basic filter cutoff frequency.

L3 MODE

Sets the *type* of filter. The choices are:

Lo Pass Low Pass Filter – Cuts off the high frequencies (lets the low frequencies pass thru)

Hi Pass High Pass Filter – Cuts off the low frequencies (lets the high frequencies pass thru)

L4 VELO CURVE

Selects a velocity response curve. Works with Velo to Cut to tailor how the filter cutoff is affected by the key velocity.

RI RESONANCE

Sets the amount of filter resonance. The higher the setting, the more *nasal* the sound.

R2 DCF LEVEL

Adjusts the input level to the filter.

R3 KS TO CUT

Controls how much the Key Scale affects the filter cutoff frequency.

R4 VELOCITY TO CUT

Controls how much the Velocity affects the filter cutoff frequency.

F8 MORE

Goes to the DCF Envelope page, below.

DCF (FILTER) ENVELOPE

This screen controls the envelope generator for the filter.


```
A006 Reznator              DCF Envelope
> Depth   +63              Dcy2 T  127  <
> Atak T  127              Dcy2 L  +63  <
> Dcy1 T  127              Releas  127  <
> Dcy1 L  +63
Back  S1 P  S2--  S3 A  S4 A  S5--  S6--  More
```


ENVELOPE
PARAMETERS
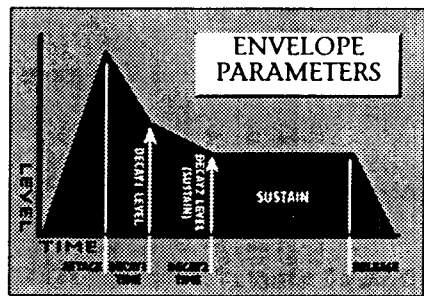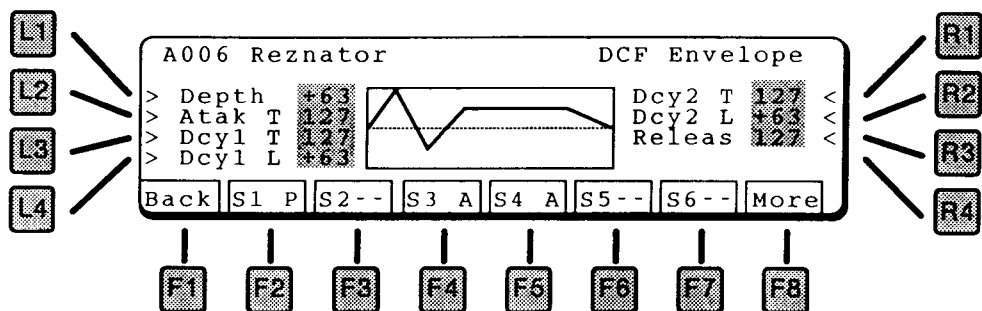
LI   DEPTH
Scales the strength of the entire envelope.

L2   ATAK T (ATTACK TIME)
When a note is played (note on), the envelope will go from zero to maximum in this amount of time. A short attack time gives a sharp edge to the start of the sound like a piano. A long attack gives a more legato effect.

L3   DCYI T (DECAYI TIME)
After reaching the maximum, the envelope will go to the decay1 level in this amount of time.

L4   DCYI L (DECAYI LEVEL)
After reaching the maximum, the envelope will go to this level.

RI   DCY2 T (DECAY2 TIME)
After reaching the decay1 level, the envelope will go to the decay2 level in this amount of time.

R2   DCY2 L (DECAY2 LEVEL)
The sustain level. After Attack, Decay1, and Decay2, if a note is still held on it will sustain at this level.

R3   RELS T (RELEASE TIME)
When a note is released (goes off) the envelope will return to zero in this amount of time.

F8   MORE
Goes to the next page of parameters, which modulate the envelope.

```
┌──────────────────────────────────────────────────┐
│  A006  Reznator            DCF  Modulation         │
│                                                    │
│ > KS to Attack    ███   Velo  to  Env   ███  <     │
│ > KS to DCY1      ███   Velo  to  Atk   ███  <     │
│                        Velo  to  DCY1   ███  <     │
│                                                    │
│ Back  S1 P  S2--  S3 A  S4 A  S5--  S6--           │
└──────────────────────────────────────────────────┘
```
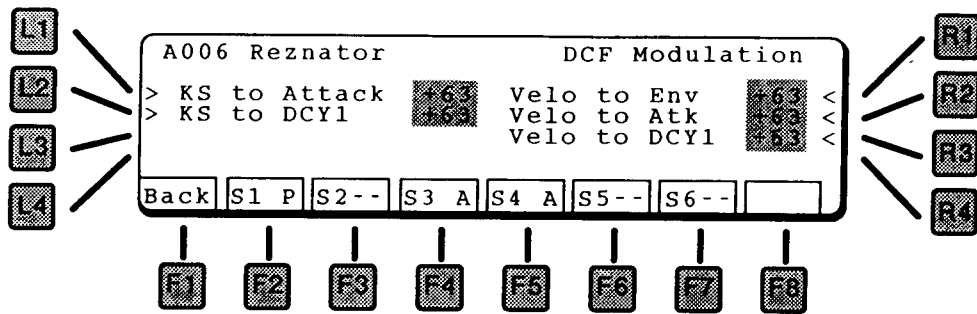
LI KS TO ATTACK
Adds Key Scale to control the Attack time.

L2 KS TO DCY I
Adds Key Scale to control the Decay 1 time.

RI VELO TO ENV
Adds Velocity to control the overall envelope level. The more velocity, the more the filter will open.

R2 VELO TO ATK
Adds Velocity to control the Attack time.

R3 VELO TO DCY I
Adds Velocity to control the Decay 1 time.

DCA

The Digitally Controlled Amplifier (DCA) sets the volume of the sound. It is controlled by an envelope to shape a sound's overall transient characteristics.

The DCA envelope screen shows a visual representation of the envelope.
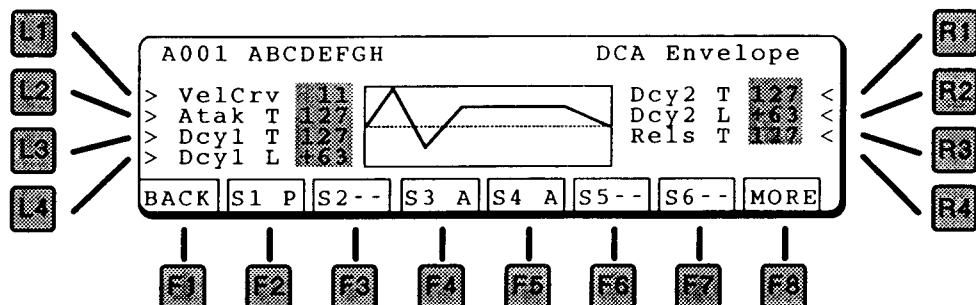
LI **VELOCITY CURVE**
Selects a velocity response curve to tailor the response of the DCA to key velocity.

L2 **ATTACK TIME**
When a note is played (note on), the envelope will go from zero to maximum in this amount of time. A short attack time gives a sharp edge to the start of the sound like a piano. A long attack gives a more legato effect.

L3 **DECAY I TIME**
After reaching the maximum, the envelope will go to the decay1 level in this amount of time.

L4 **DECAY I LEVEL**
After reaching the maximum, the envelope will go to this level.

RI **DECAY2 TIME**
After reaching the decay1 level, the envelope will go to the decay2 level in this amount of time.

R2 **DECAY2 LEVEL**
The sustain level. After Attack, Decay1, and Decay2, if a note is still held on it will sustain at this level.

R3 **RELEASE TIME**
When a note is released (goes off) the envelope will return to zero in this amount of time.

F8 **MORE**
Goes to the DCA Modulation page, below.

DCA MODULATION

This page offers parameters to modify the DCA envelope by key scale (which note is played) or velocity (how hard a key is played). Careful use of these parameters can add life and expression to any sound.

```
┌──────────────────────────────────────────────────────────┐
│ A001  Runner                    DCA  Modulation           │
│    KS  TO  DCA  ENV          VELO  TO  DCA  ENV            │
│ >  Level              +63    Level                63   <   │
│ >  Attack  Time       +63    Attack  Time         63   <   │
│ >  Decay1  Time       +63    Decay1  Time         63   <   │
│ >  Release            +63    Release              63   <   │
│ ┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐          │
│ │Back││S1 P││S2--││S3 A││S4 A││S5--││S6--││    │          │
│ └────┘└────┘└────┘└────┘└────┘└────┘└────┘└────┘          │
└──────────────────────────────────────────────────────────┘
```

MODULATION BY KEY SCALE:

L1 ENVELOPE LEVEL
Uses key scale to control the maximum amount of the envelope. With a positive value, a higher key will have more envelope dynamics and a lower key will have less dynamics.

L2 ATTACK TIME
Uses key scale to control the attack time. With a positive value, a higher key will have a longer attack time and a lower key will have a shorter attack time.

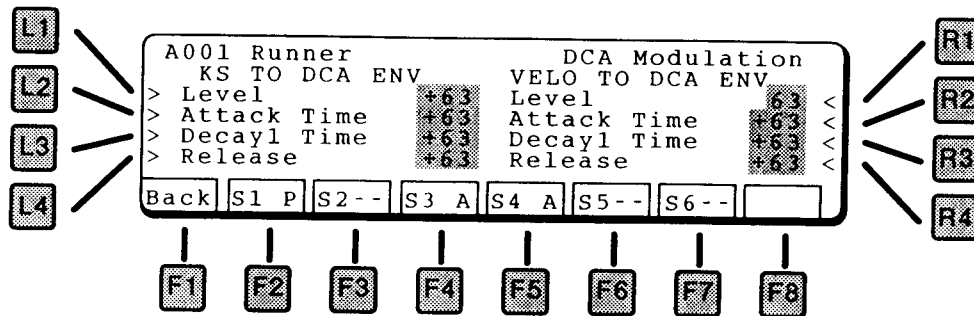In nature, lower instruments (baritone sax, for example) have a *longer* attack time than higher instruments (alto sax). Using *negative* amounts of this parameter will simulate this.

L3 DECAY1 TIME
Uses key scale to control the decay1 time. With a positive value, a higher key will have a longer decay time and a lower key will have a shorter time.

L4 RELEASE TIME
Uses key scale to control the decay1 time. With a positive value, a higher key will have a longer release time and a lower key will have a shorter time.

MODULATION BY VELOCITY:

R1 ENVELOPE LEVEL
Uses velocity to control the maximum amount of the envelope. With a positive value, a harder (louder) key will have more envelope dynamics and a softer key will have less dynamics.

R2 ATTACK TIME
Uses velocity to control the attack time. With a positive value, a harder (louder) key will have a longer attack time and a softer key will have a shorter attack time.

In nature, softer notes generally have a *longer* attack time than louder notes. Using *negative* amounts of this parameter will simulate this.

R3 DECAY1 TIME
Uses velocity to control the decay1 time. With a positive value, a harder (louder) key will have a longer decay time and a softer key will have a shorter time.

R4 RELEASE TIME
Uses attack velocity to control the release time. With a positive value, a faster key release will have a longer release time and a slower release will have a shorter time. Again, negative values of this parameter are more *natural*.

ADDITIVE

This section presents the editing parameters for Kawai's ADD harmonic synthesizer.

The first ADD screen presents seven submenus for navigation.

```
A002 Launcher                         Menu
     Normal Mode              Morf Mode
>  Harmonic Lvl(DHL)                   Morf  <
>  Harmonic Env(DHE)
>  Formant  Lvl(DFL)       Formant Lvl(DFL)  <
>  Formant  Env(DFE)       Formant Env(DFE)  <
```
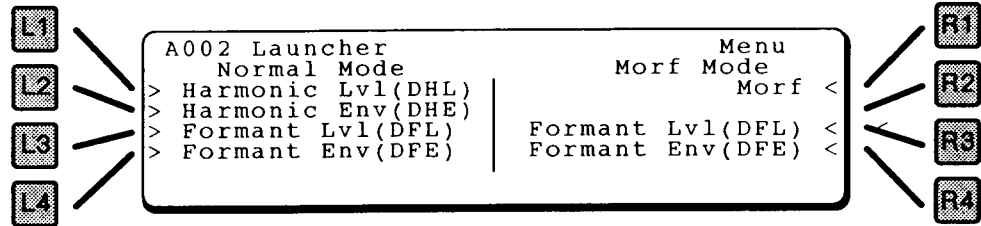
LI   HARMONIC LEVEL
Goes to DHL page, where the level of individual harmonics can be adjusted.

L2   HARMONIC ENVELOPE
Goes to DHE page, where the harmonics can be enveloped.

L3   FORMANT LEVEL
Goes to the DFL page, where the formant filter can be adjusted.

L4   FORMANT ENVELOPE
Goes to the DFE page, where the formant filter can be enveloped.

RI   MORF
Goes to the Morfing page, which is a harmonics programming assistant.

NORMAL VS MORF
There are two programming modes, Normal and Morf. Any additive source uses one or the other. The main difference is in how the Harmonic Envelopes are utilized. For this reason, if you change to Morf mode (by executing a morf), the DHE parameters are replaced by new Morf settings. Other sections are not affected.

R3   FORMANT LEVEL
Goes to the DFL page, where the formant filter can be adjusted.

R4   FORMANT ENVELOPE
Goes to the DFE page, where the formant filter can be enveloped.

HARMONIC LEVEL (DHL)

Selecting Harmonic Level from the previous page brings you to the DHL Menu page, where you can select pages for direct manipulation of the harmonic levels.

```
┌─────────────────────────────────────────────────┐
│  A023  Launcher                    DHL  Menu     │
│                                                  │
│  >  Common                                       │
│  >  Harmonic  Level  Edit                        │
│  >  Harmonic  Level  Copy                        │
│        ┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐      │
│        │S1 A││S2 P││S3 A││S4 A││S5 --││S6 --│     │
│        └────┘└────┘└────┘└────┘└────┘└────┘      │
└─────────────────────────────────────────────────┘
```
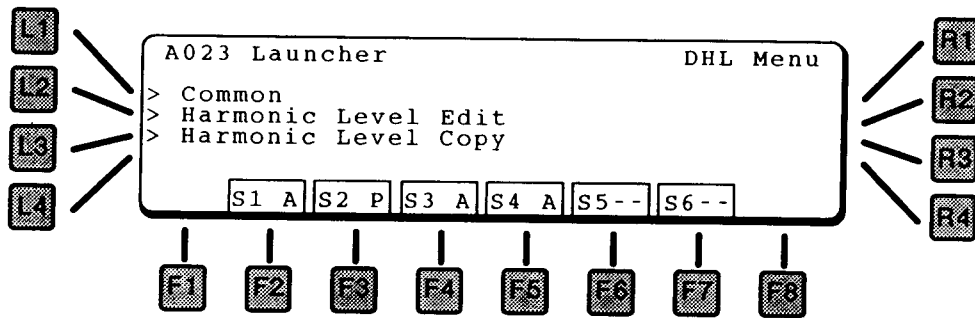
L1   COMMON
Edits parameters common to all harmonics.

L2   HARMONIC LEVEL EDIT
Goes to a visual display of harmonics, where individual harmonics can be adjusted.

L3   HARMONIC LEVEL COPY
Copies sets of harmonics from one patch to another.

COMMON

Edits parameters common to all harmonics.

```
┌─────────────────────────────────────────────────┐
│  A023  Launcher                     DHL  Common  │
│                                      Balance     │
│  >  Total  Gain        63       Vel  Curve   5 < │
│  >  KS  to  Gain        0       Vel  Depth  63 < │
│  >  Harmonic  Group    HI                        │
│        ┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐      │
│        │S1 A││S2 P││S3 A││S4 A││S5 --││S6 --│     │
│        └────┘└────┘└────┘└────┘└────┘└────┘      │
└─────────────────────────────────────────────────┘
```
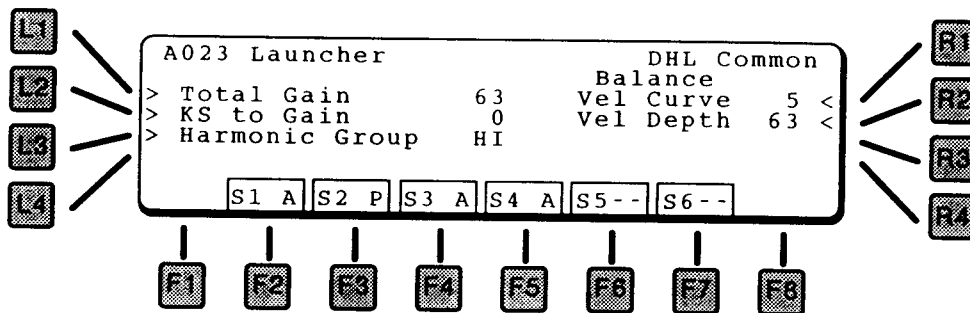
L1   TOTAL GAIN
This is the master level for this harmonic group.

L2   KS TO GAIN
This adjusts how much the Key Scale controls the gain of the harmonic group. With a positive value, high notes will have a higher gain than low notes.

L3   HARMONIC GROUP
In the K5000S, each source can use a harmonic bank of 64 harmonics. This parameter selects whether the first 64 harmonics (1 – 64, starting at the fundamental) or harmonics 65 – 128 are used.

By itself, the Hi harmonics group has a tonality similar to metallic percussion instruments.

R1 VELOCITY CURVE

12 velocity curves are available to adjust the response of the harmonic envelope to the touch of your playing. This curve is used for all sections of the patch. Curve #5 (below) equals an exact 1:1 correlation, the other curves weight the response in different directions.

1   2   3   4   5   6   7   8   9   10   11   12
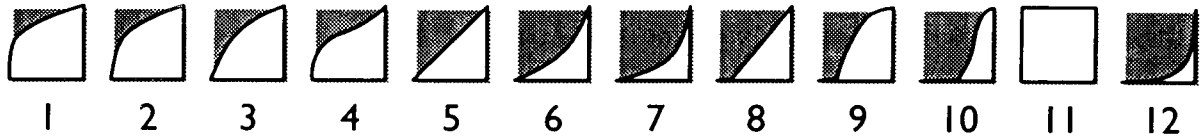
R2 VELOCITY DEPTH

This sets the velocity crossfade between the soft and loud harmonic groups.

HARMONIC LEVEL EDIT

Goes to a visual display of harmonics, where individual harmonics can be adjusted.

```
A023  Launcher           Harmonic  Level
              SOFT              Edit  Group
                                   Bright  <
                            Harm        1  <
 > >                        Level     127  <
 > <                        Selct    Soft  <
         ↑
    S1 A  S2 P  S3 A  S4 A  S5--  S6--
```
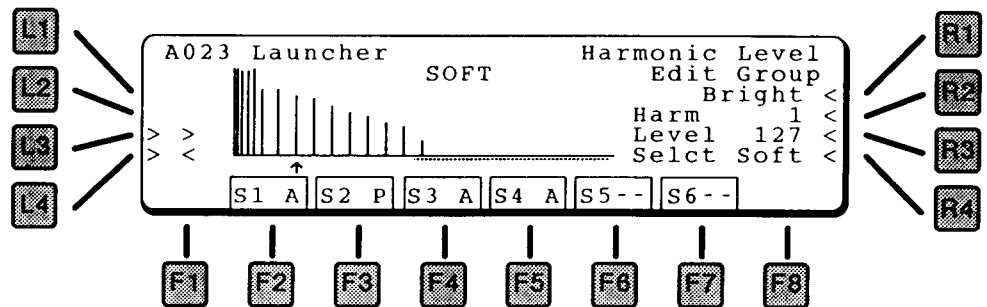
L3 NEXT HARMONIC
L4 PREVIOUS HARMONIC

These buttons select an individual harmonic. The small arrow under the harmonics displays which harmonic is selected, and its number and value can be seen on the right side of the screen (**R2** and **R3**).

R1 EDIT GROUP

Since editing harmonics one at a time can become quite cumbersome, the Edit Group function allows you to select harmonics to modify *as a group*.

HARMONIC GROUPS

Harmonics can be grouped in the following categories. The dots underneath the harmonic bars show which harmonics are selected.

BRIGHT
The upper 32 harmonics.

DARK
The lower 32 harmonics.

ODD
The odd numbered harmonics.

EVEN
The even numbered harmonics.

OCT
Each harmonic tuned to an octave of the fundamental pitch: 1, 2, 4, 8, 16, 32, 64 (when lo is selected) / 128 (when hi is selected).

5TH

Each harmonic tuned to a fifth above of the fundamental pitch: 3, 6, 12, 24, 48 (when lo is selected) / 96 (when hi is selected).

ALL

All 64 harmonics.

EACH

Only the selected harmonic, the pointed to by the arrow under the harmonic display.

R2   HARMONIC NUMBER

Uses the Value dial to select a harmonic for display. The small arrow under the harmonics displays which harmonic is selected.

R3   LEVEL

Adjusts the level of the selected harmonic(s).

R4   SELECT

Selects a harmonic group to edit (soft or loud). These two sets can be crossfaded by velocity.

HARMONIC LEVEL COPY

From this screen, you can copy sets of harmonics from one patch to another. Since there are so many parameters in a harmonic series, this makes creating and modifying patches less time consuming.
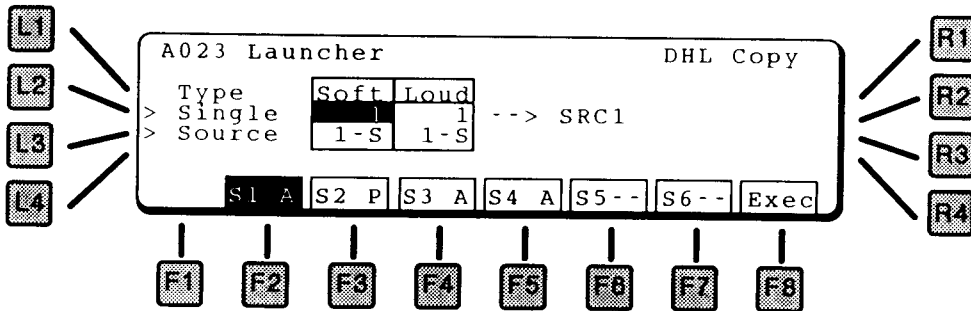
L2   SINGLE

Select the Patch to copy from. Pressing L2 switches between Soft and Loud.

L3   SOURCE

Select the Source from within the selected patch to copy from, 1 – 6. Pressing L3 switches between Soft and Loud variations.

*** = no copy. This means that this side (soft or loud) will not be copied.

F2~F7   DESTINATION

Press the F2~F7 buttons to select which source (of the current patch) that the copy will be made *to*.

F8   EXECUTE

Press this to make the copy.

HARMONIC ENVELOPE (DHE)

This screen is the menu for Harmonic Envelope functions.

```
┌─────────────────────────────────────────────────────┐
│ A023  Launcher                          DHE  Menu     │
│ > Harmonic  Envelope  Multiview                       │
│ > Harmonic  Envelope  View                            │
│ > Harmonic  Envelope  Copy                            │
│                                                       │
│      │S1 A││S2 P││S3 A││S4 A││S5 --││S6 --│           │
└─────────────────────────────────────────────────────┘
   F1    F2    F3    F4    F5    F6    F7    F8
```
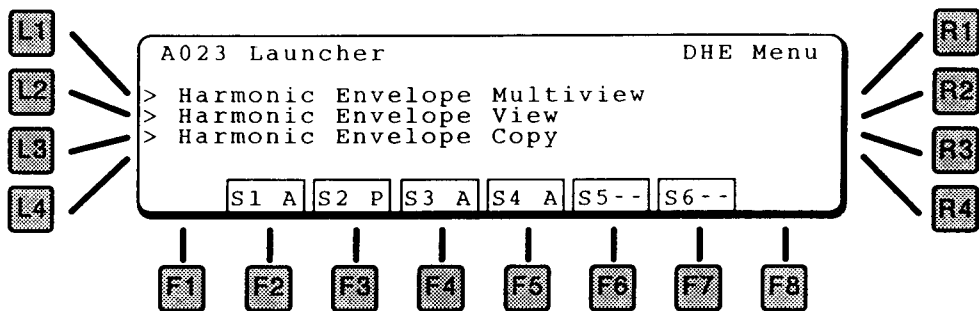
LI   HARMONICS ENVELOPE MULTIVIEW
Displays individual parameters for *all 64* harmonic envelopes simultaneously.

L2   HARMONICS ENVELOPE VIEW
Displays all parameters of a *single* harmonic envelope.

L3   HARMONICS ENVELOPE COPY
Copies harmonic envelopes from a Single patch in memory to the current patch being edited.

HARMONIC ENVELOPE MULTIVIEW

The Harmonic Envelope Multiview screen shows individual segments of the harmonic envelope for all harmonics side by side. The display shows the rate on the left and the level on the right. The harmonics selected for editing are shown by the dots and the arrow underneath the graphs. Compare this screen to the Harmonic Envelope View screen (described on page 43), which shows all segments of a single envelope.

The harmonic envelope starts at zero. However the Attack phase can go above *or below* zero and the release does not have to end at zero, like a DCA envelope does.

```
┌─────────────────────────────────────────────────────┐
│ A023  Launcher            DHE  Multiview              │
│ Edit  Group               LVL= 63                     │
│ >   Bright                             Atk  <         │
│ > Loop  Off                            DC1  <         │
│ > >                                    DC2  <         │
│ > <                                    PTS  <         │
│ Harm= 1     ↑           ↑                             │
│      │S1 A││S2 P││S3 A││S4 A││S5 --││S6 --│           │
└─────────────────────────────────────────────────────┘
   F1    F2    F3    F4    F5    F6    F7    F8
```

LI   EDIT GROUP
Since editing harmonics one at a time can become quite cumbersome, the Edit Group function allows you to select harmonics to modify *as a group*.

HARMONIC GROUPS
Harmonics can be grouped in the following categories. The dots underneath the harmonic bars show which harmonics are selected.

BRIGHT
The upper 32 harmonics.

DARK
The lower 32 harmonics.

ODD
The odd numbered harmonics.

EVEN
The even numbered harmonics.

OCT
Each harmonic tuned to an octave of the fundamental pitch: 1, 2, 4, 8, 16, 32, 64 (when lo is selected) / 128 (when hi is selected).

5TH
Each harmonic tuned to a fifth above of the fundamental pitch: 3, 6, 12, 24, 48 (when lo is selected) / 96 (when hi is selected).

ALL
All 64 harmonics.

EACH
Only the selected harmonic, the pointed to by the arrow under the harmonic display.

L2   LOOP

To enhance motion in the sound, the harmonic envelopes can loop among several settings during the sound's sustain.

OFF
No loop. Envelope goes to the Decay 2 Level and sustains there, the same as the envelopes for the DCF and DCA.

LP1
Loops between Decay 1 Level and Decay 2 Level, at the Decay 2 Rate.

LP2
Loops between Decay 1 Level and Decay 2 Level, but uses *both* Decay 1 and Decay 2 Rates.
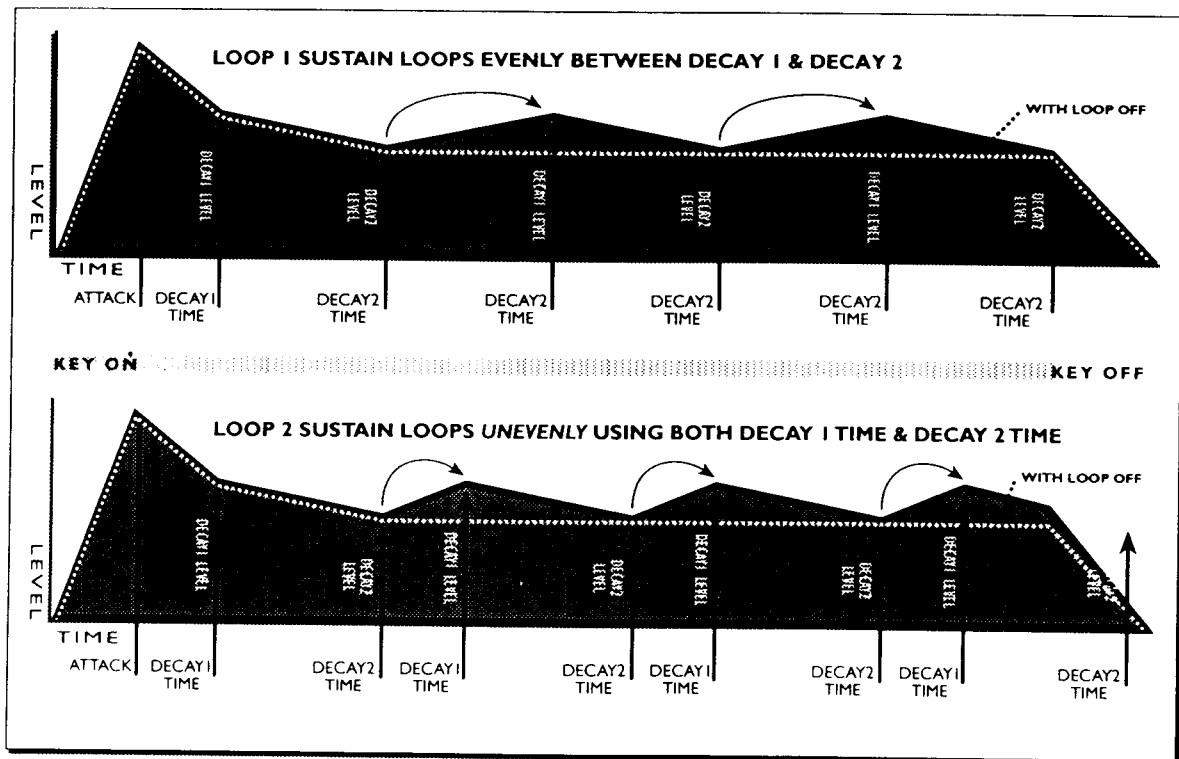
L3   NEXT HARMONIC
L4   PREVIOUS HARMONIC
These buttons select an individual harmonic. The small arrow under the harmonics displays which harmonic is selected.

R1   ATTACK (RATE & LEVEL)
Press R1 to switch between the Attack Rate and Attack Level. Use the Value dial to change the setting.

R2   DECAY 1 (RATE & LEVEL)
Press R2 to switch between the Decay 1 Rate and Level. Use the Value dial to change the setting.

R3   DECAY 2 (RATE & LEVEL)
Press R3 to switch between the Decay 2 Rate and Level. Use the Value dial to change the setting.

R4   RELEASE (RATE & LEVEL)
Press R4 to switch between the Release Rate and Level. Use the Value dial to change the setting.

HARMONIC ENVELOPE VIEW

This display shows all the envelope parameters for a single harmonic on one screen, another way of looking at the harmonic envelopes.
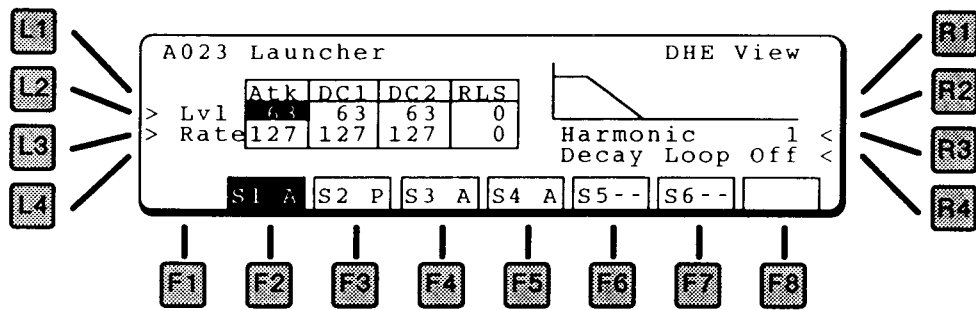
L2   LEVEL
Press L2 to cycle through the level settings for Attack, Decay 1, Decay 2, and Release. Use the Value dial to change the setting.

L3   RATE
Press L3 to cycle through the rate settings for Attack, Decay 1, Decay 2, and Release. Use the Value dial to change the setting.

R3   HARMONIC
This selects the harmonic to modify. Each of the 64 harmonics has its own envelope.

R4   DECAY LOOP
To enhance motion in the sound, the harmonic envelopes can loop among several settings during the sound's sustain. See the diagram on the previous page.

OFF
No loop. Envelope goes to the Decay 2 Level and sustains there, the same as the envelopes for the DCF and DCA.

LP1
Loops between Decay 1 Level and Decay 2 Level, at the Decay 2 Rate.

LP2
Loops between Decay 1 Level and Decay 2 Level, but uses *both* Decay 1 and Decay 2 Rates.

HARMONIC ENVELOPE COPY

From this screen, you can copy sets of harmonic envelopes from one patch into the current patch. Since there are so many parameters in a harmonic envelope, this makes creating and modifying patches less time consuming.
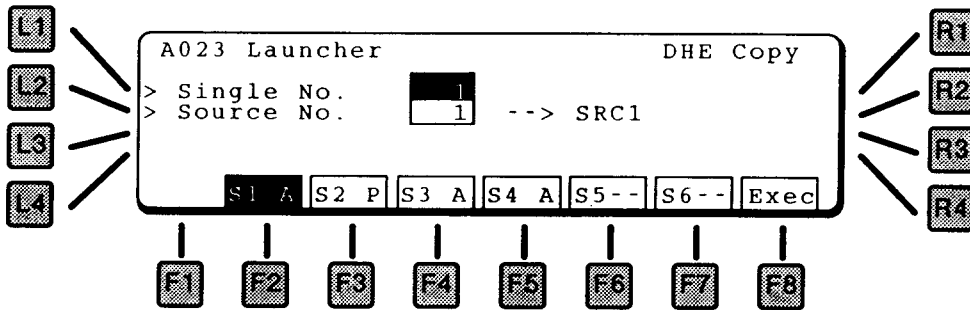
L1   SINGLE NUMBER

This sets the patch to copy the harmonic envelope *from*.

L2   SOURCE NUMBER

This sets the source from the Single patch (selected above) to copy from.

F2 – F7   DESTINATION SOURCE

Press the Source function key to select which source the envelope will be copied *to*. The display shows the destination as --> SRC#.

F8   EXECUTE

Press this to make the copy.

FORMANT FILTER LEVEL (DFL)

The K5000's Formant Filter is a 128-band graphic equalizer, which can be used to create additional additive effects.
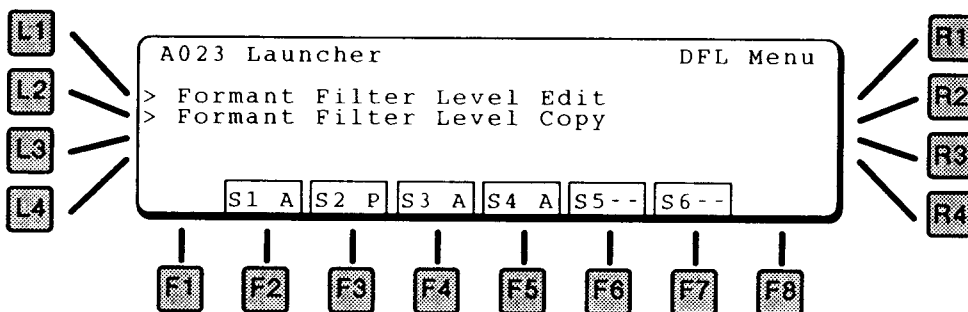
The following chart shows the pitch and frequency of each filter band. The Bias control can be used to slide the entire range up and down.

CENTER FREQUENCY OF 128 BAND FORMANT FILTER (BIAS=0)

Band 70=440Hz.
If the BIAS is set to +12, Band 70=220Hz.
If the BIAS is set to -12, Band 70=880Hz.
The Formant Filter Envelope value works the same as the BIAS.
If the Formant Filter Env. is set to a minus value, the filter moves to the right.

| Band	Freq.-Hz.	Key	Band	Freq.-Hz.	Key	Band	Freq.-Hz.	Key	Band	Freq.-Hz.	Key
1	8	C	33	52	G#	65	330	E	97	2093	C
2	9	C#	34	55	A	66	349	F	98	2217	C#
3	9	D	35	58	A#	67	370	F#	99	2349	D
4	10	D#	36	62	B	68	392	G	100	2489	D#
5	10	E	37	65	C	69	415	G#	101	2637	E
6	11	F	38	69	C#	70	440	A	102	2794	F
7	12	F#	39	73	D	71	466	A#	103	2960	F#
8	12	G	40	78	D#	72	494	B	104	3136	G
9	13	G#	41	82	E	73	523	C	105	3322	G#
10	14	A	42	87	F	74	554	C#	106	3520	A
11	15	A#	43	92	F#	75	587	D	107	3729	A#
12	15	B	44	98	G	76	622	D#	108	3951	B
13	16	C	45	104	G#	77	659	E	109	4186	C
14	17	C#	46	110	A	78	698	F	110	4435	C#
15	18	D	47	117	A#	79	740	F#	111	4699	D
16	19	D#	48	123	B	80	784	G	112	4978	D#
17	21	E	49	131	C	81	831	G#	113	5274	E
18	22	F	50	139	C#	82	880	A	114	5588	F
19	23	F#	51	147	D	83	932	A#	115	5920	F#
20	24	G	52	156	D#	84	988	B	116	6272	G
21	26	G#	53	165	E	85	1047	C	117	6645	G#
22	28	A	54	175	F	86	1109	C#	118	7040	A
23	29	A#	55	185	F#	87	1175	D	119	7459	A#
24	31	B	56	196	G	88	1245	D#	120	7902	B
25	33	C	57	208	G#	89	1319	E	121	8372	C
26	35	C#	58	220	A	90	1397	F	122	8870	C#
27	37	D	59	233	A#	91	1480	F#	123	9397	D
28	39	D#	60	247	B	92	1568	G	124	9956	D#
29	41	E	61	262	C	93	1661	G#	125	10548	E
30	44	F	62	277	C#	94	1760	A	126	11175	F
31	46	F#	63	294	D	95	1865	A#	127	11840	F#
32	49	G	64	311	D#	96	1976	B	128	12544	G

LI FORMANT FILTER LEVEL EDIT

```
┌──────────────────────────────────────────────┐
│ A023  Launcher                          DFL   │
│        ▌▐ ▌ ▌▐ ▌▌ ▐     Edit  Group <         │
│       ▐█▐█▌█▐█▐█▌█▐█▌      20  Band   49 <     │
│   > >  ▐█▐█▌█▐█▐█▌█▐█▌   Band       127 <      │
│   > <  ▐█▐█▌█▐█▐█▌█▐█▌   Level     +10 <       │
│                         Bias                  │
│        ┌─┐┌──┐┌──┐┌──┐┌──┐┌──┐                │
│       │S1 A││S2 P││S3 A││S4 A││S5--││S6--│     │
└──────────────────────────────────────────────┘
```
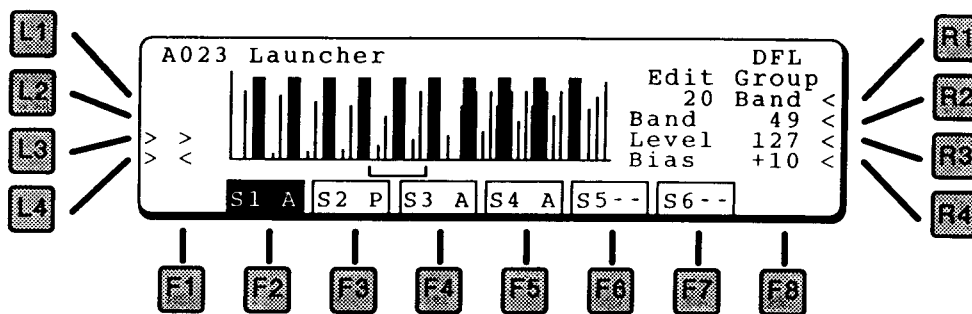
L3 NEXT
L4 PREVIOUS
These buttons select the next or previous group.

RI EDIT GROUP
The filter bands can be grouped into the following categories. The bracket underneath the bars show which filter bands are selected. The range can be adjusted with the Band control, the level of the selected band with the level control.

GRAPHIC EQ
An eight-band graphic EQ, which creates the typical elliptical EQ pattern in each band.

20 BAND
Operates on 20 of the 128 formant filter bands at one time.

15 BAND
Operates on 15 of the 128 formant filter bands at one time.

10 BAND
Operates on 10 of the 128 formant filter bands at one time.

5 BAND
Operates on 5 of the 128 formant filter bands at one time.

ALL
All 128 Bands.

EACH
Only the selected frequency band, shown by the arrow under the display.

R2 BAND
The range of the filter band to be controlled can be adjusted using the Band control. The bracket shows the selected range.

R3 LEVEL
This adjusts the level of the selected band.

R4 BIAS
The frequencies of the entire formant filter can be moved up and down using the Bias control.

L2 FORMANT FILTER LEVEL COPY

This copies the formant filter settings from a Single patch in memory into the *current* Single patch.

```
┌─────────────────────────────────────────────────────┐
│  A023  Launcher                    DFL  Copy         │
│  > Single  No.        ▌  1                            │
│  > Source  No.       │    1│  --> SRC1               │
│                                                      │
│     │S1  A││S2  P││S3  A││S4  A││S5--││S6--││Exec│    │
└─────────────────────────────────────────────────────┘
```
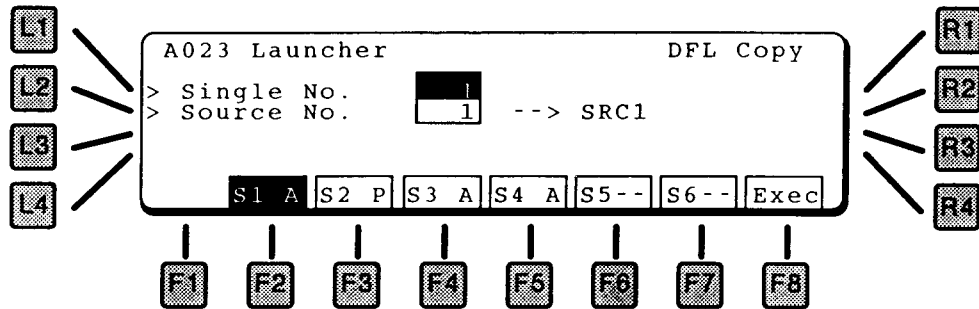
LI   SINGLE NUMBER
This sets the patch to copy the formant filter level settings *from*.

L2   SOURCE NUMBER
This sets the source from the Single patch (selected above) to copy from.

F2 – F7   DESTINATION SOURCE
Press the Source function key to select which source the filter settings will be copied *to*. The display shows the destination as --> SRC#.

F8   EXECUTE
Press this to make the copy.

FORMANT ENVELOPE (DFE)

The formant filter can be swept up and down using an envelope generator or LFO, selected from this screen.

```
┌─────────────────────────────────────────────────────┐
│  A023  Launcher                    DFE  Menu         │
│  > Envelope  Mode               LFO  Mode  <         │
│  > DFE  Envelope  Edit          LFO  Edit  <         │
│                                                      │
│     │S1  A││S2  P││S3  A││S4  A││S5--││S6--│          │
└─────────────────────────────────────────────────────┘
```

Formant Envelope Sweeps the Filter Up and Down
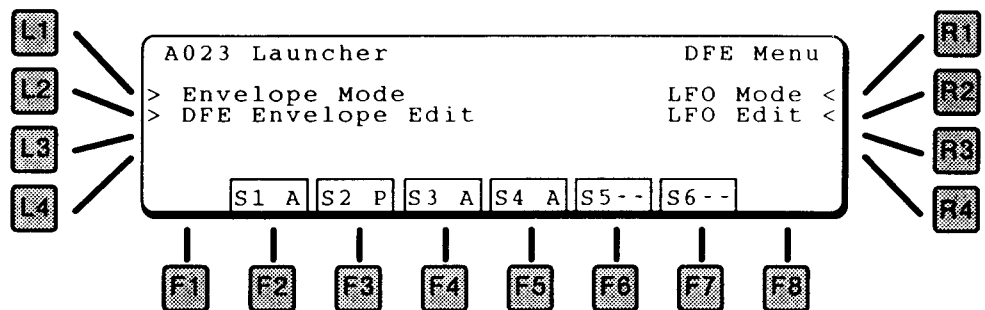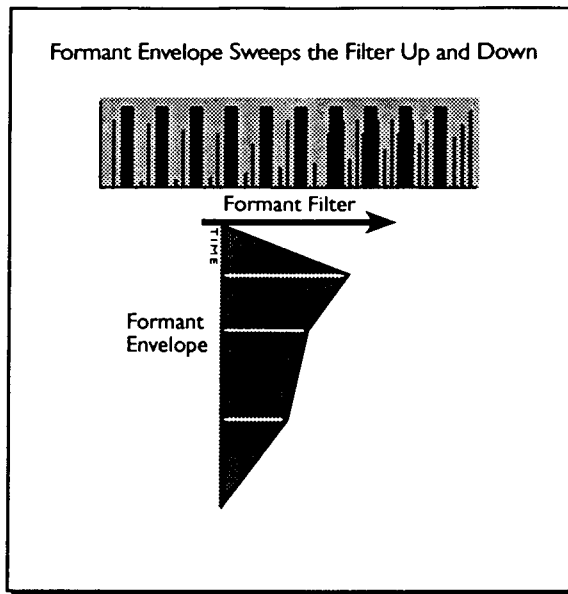
L2 DFE ENVELOPE EDIT

This page contains the parameters for the Formant Filter Envelope. There is one envelope per source.

The envelope diagram shows the visual result of the envelope settings on the page.
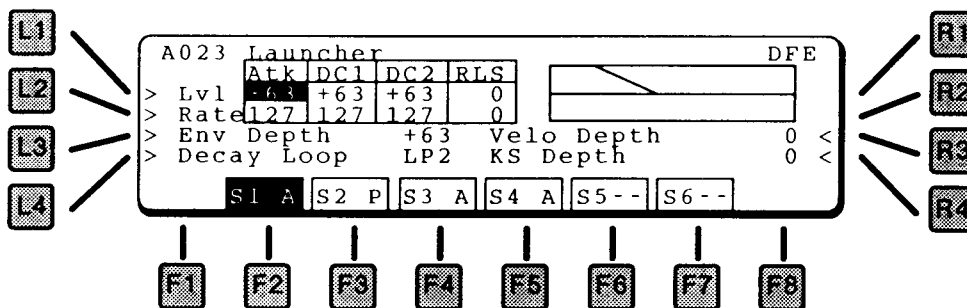
LI LEVEL

Press L2 to cycle through the level settings for Attack, Decay 1, Decay 2, and Release. Use the Value dial to change the setting.

L2 RATE

Press L3 to cycle through the time settings for Attack, Decay 1, Decay 2, and Release. Use the Value dial to change the setting.

L3 ENV DEPTH

This is the master envelope depth control, which determines how much the envelope controls the filter.

L4 DECAY LOOP

To enhance motion in the sound, the harmonic envelopes can loop among several settings during the sound's sustain. See the diagram on page 42.

OFF
No loop. Envelope goes to the Decay 2 Level and sustains there, the same as the envelopes for the DCF and DCA.

LP1
Loops between Decay 1 Level and Decay 2 Level, at the Decay 2 Rate.

LP2
Loops between Decay 1 Level and Decay 2 Level, but uses *both* Decay 1 and Decay 2 Rates.

R3 VELO DEPTH
The key velocity can be used to adjust the amount of filter modulation by the envelope. With a positive value, the harder a key is played, the more the filter will be moved by the envelope.

R4 KS DEPTH
The key scale (which key is played) can also be used to adjust the amount of filter modulation by the envelope. With a positive value, the higher the note, the more the filter will be moved by the envelope.

R2 LFO EDIT
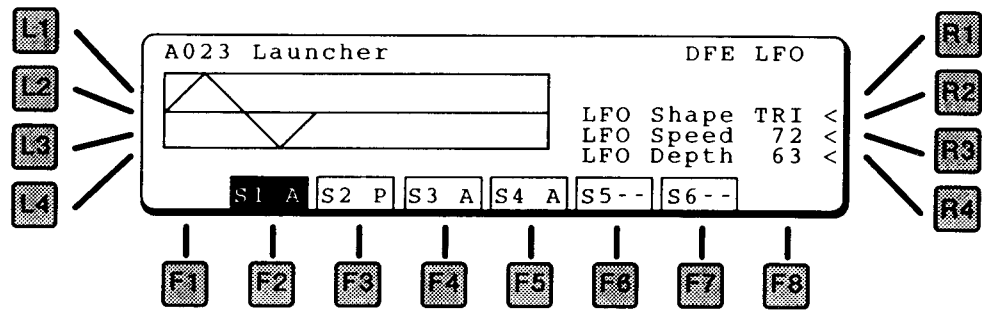
R2 LFO SHAPE
This selects the LFO waveform type:

TRI
Triangle

SAW
Sawtooth

RND
Random

R3 LFO SPEED
Sets the LFO speed.

R4 LFO DEPTH
Sets the initial LFO Depth.

MORF

Morfing lets you create new harmonic shapes by dissolving between four different harmonic *snapshots*. This is done by copying four sources from patches stored in the K5000S.

Sustain
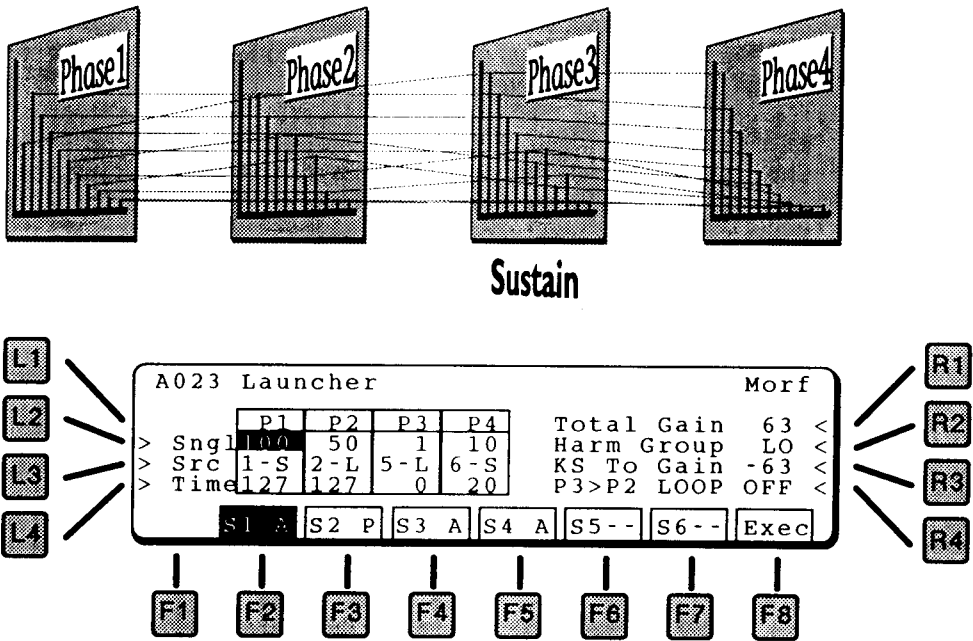
L2 SINGLE

This selects which *patch* the source will be copied from. Press this key repeatedly to cycle through the four phases (P1 – P4).

L3 SOURCE

This selects the *source* within the single patch (selected by L2) to copied. There are up to six sources, each of which contains a soft harmonic set (S), and a loud harmonic set (L). Press this key repeatedly to cycle through the four phases (P1 – P4).

L4 TIME

The transition between phases.

R1 TOTAL GAIN

The loudest harmonic will be set to this level, so it functions as a master level.

R2 HARMONIC GROUP

This selects the range of harmonics, 1–64 or 65–128.

R3 KS TO GAIN

Controls the level with the Key Scale. With a positive value, the harmonics will get louder as higher notes are played on the keyboard.

R4 P3>P2 LOOP

If OFF, the harmonics will move according to the selected on this screen, however they will *freeze* once the sustain point is reached. By turning ON the P3>P2 Loop, the harmonics will morf back and forth between phase 2 and phase 3 during sustain, creating constant motion and a more animated sound.

F8 EXECUTE

Creates the Morf.

LFO & COPY

The Low Frequency Oscillator is a slow moving (sub-audio) oscillator that is used to modify the DCO, DCF, or DCA to give vibrato and tremolo effects.

A Source Copy function is also included on this page.

```
A001  Runner                              LFO
>  Waveform        TRI    Fade  In  time    127  <
>  Speed           127    Fade  In  to  SP   63  <
>  Delay  Onset    127
                          Source  Copy              <
    S1 P  S2--  S3  A  S4  A  S5--  S6--  More
```
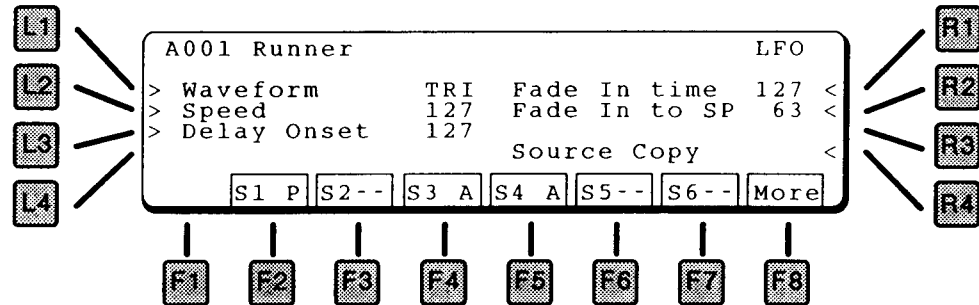
LI   WAVEFORM
This selects the LFO waveform type:

SIN
Sine

TRI
Triangle

SAW
Sawtooth

SQR
Square

RND
Random

L2   SPEED
Sets the LFO initial speed. The range is 0.1Hz to 18Hz.

L3   DELAY ONSET
This adds a delay before the LFO kicks in. The delay can be as long as 2 seconds.

RI   FADE IN TIME
After the delay, this sets the amount of time that the LFO fades in to maximum amount.

R2   FADE IN TO SPEED
After the delay, the LFO gradually speeds up to the initial speed setting.

R3 **SOURCE COPY**

This lets you copy an *entire* source from another patch.

```
┌──────────────────────────────────────────────┐
  A001  Runner              Source  Copy
│                                              │
  >  Single  No.     A036
│ >  Source  No.        1   -->  SRC1          │

│ ┌──────┬──────┬──────┬──────┬──────┬──────┬──────┐ │
  │ S1 A │ S2 P │ S3 A │ S4 A │ S5-- │ S6-- │ Exec │
  └──────┴──────┴──────┴──────┴──────┴──────┴──────┘
```
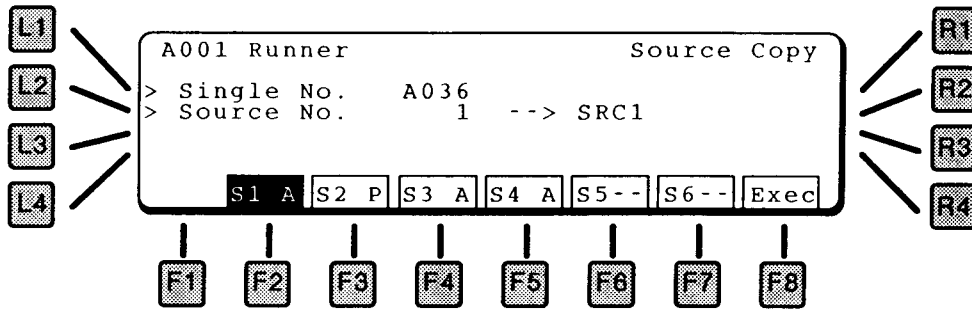
L1 SINGLE NUMBER
Select the Patch to copy from.

L2 SOURCE NUMBER
Select the Source from within the selected patch to copy from, 1 – 6.

F2 – F6 Selects the destination source (in the current patch) for the copy.

F8 EXEC
Executes the copy.

LFO MODULATION

```
┌──────────────────────────────────────────────┐
  A001  Runner              LFO  Modulation
│                                              │
  >  Vibrato(DCO)    63   KS  to  Vibrato  +63  <
│ >  Growl(DCF)      63   KS  to  Growl    +63  < │
  >  Tremolo(DCA)    63   KS  to  Tremolo  +63  <
│ ┌──────┬──────┬──────┬──────┬──────┬──────┬──────┐ │
  │ Back │ S1 P │ S2-- │ S3 A │ S4 A │ S5-- │ S6-- │
  └──────┴──────┴──────┴──────┴──────┴──────┴──────┘
```
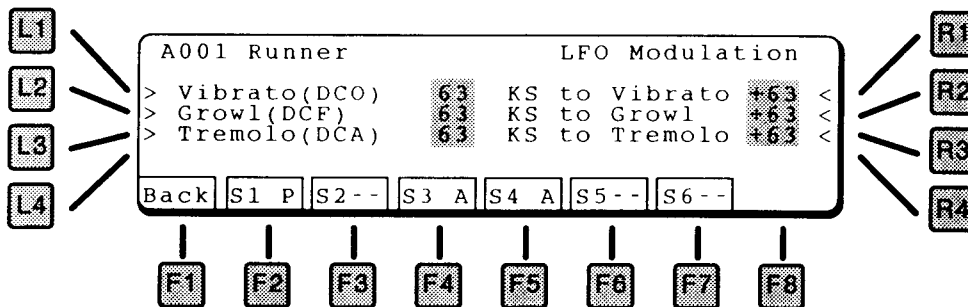
L1 VIBRATO (DCO)
Controls the amount of LFO routed to the DCO, which causes vibrato.

L2 GROWL (DCF)
Controls the amount of LFO routed to the DCF, which causes growl.

L3 TREMOLO (DCA)
Controls the amount of LFO routed to the DCA, which causes tremolo.

R1 KEY SCALE TO VIBRATO
This scales the amount of vibrato depth according to the key played. With a positive value, the amount of vibrato increases as higher notes are played.

R2 KEY SCALE TO GROWL
This scales the amount of DCF growl according to the key played. With a positive value, the amount of growl increases as higher notes are played.

R3 KEY SCALE TO TREMOLO
This scales the amount of tremolo depth according to the key played. With a positive value, the amount of tremolo increases as higher notes are played.

CONTROL

The Control pages contain settings for real time control of the sound.

VOLUME, PITCH BEND, PAN
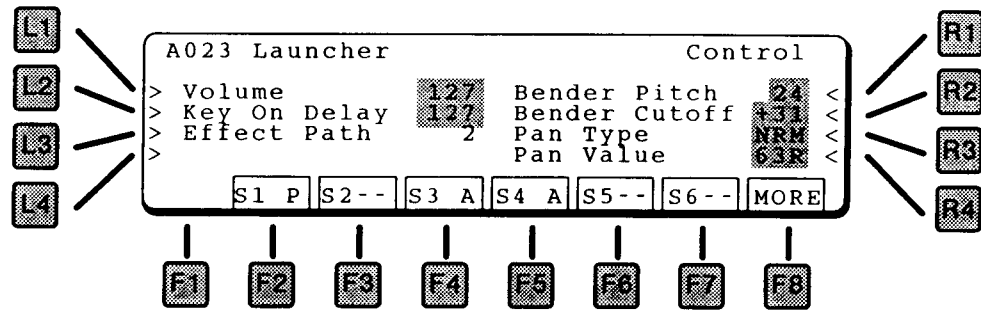
LI   VOLUME
This is the master volume for the sound source.

L2   KEY ON DELAY
This sets a delay between the time the key is struck and the sound starts.

L3   EFFECT PATH
Routes this source to one of the four inputs to the effects section. For more on effects please see page 61.
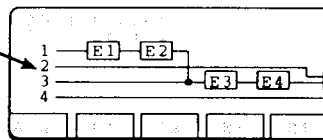
RI   BENDER PITCH
The maximum amount of pitch bend, in semitones.

R2   BENDER CUTOFF
The Pitch Bend control also can affect the filter. If you bend *up*, the filter cutoff goes up and the sound gets brighter. If you bend *down* the filter cutoff goes down and the sound gets darker.

R3   PAN TYPE
This sets the type of panning.

NRM   (Normal) is a standard left to right pan, controlled by the Pan Value, below.

RND   (Random) changes the panning randomly for each note played. This gives a feeling of an "ensemble of players" when used for a string patch, for example.

KS & -KS (Key Scale and Negative Key Scale) changes the panning depending upon the key played. KS pans from left to right, -KS pan from right to left. Using KS will simulate the natural panning of strings inside a piano.

R4 PAN VALUE

Places the sound left to right in the stereo field.

F8 MORE

Press to go to the Zone screen, below.

KEY AND VELOCITY ZONE
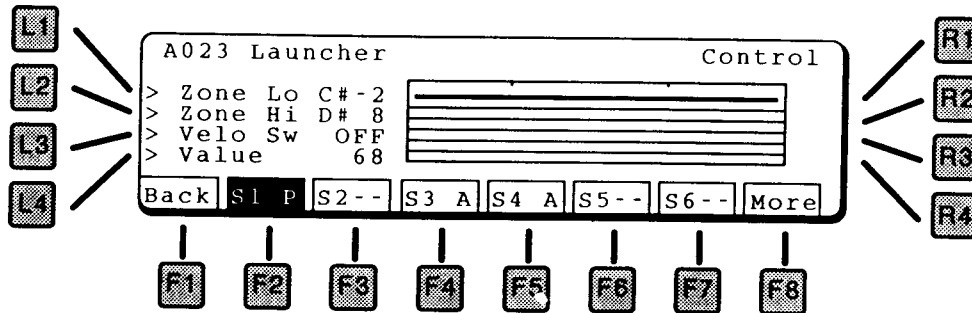
This screen has parameters for key and velocity range. Using these parameters, a sound can be limited to play in only a certain range of the keyboard, or only when a key is played hard or soft. By creating several sources, for example, one that plays on soft notes only and another that plays on hard notes only, a sound can be created with more lifelike variation.

LI ZONE LO

Sets the lowest note that will be played. The keyboard graphic visually shows the range.

L2 ZONE HI

Sets the highest note that will be played.

L3 VELOCITY SWITCH

Sets the velocity range. At Loud, only hard (loud) notes will sound. At Soft, only soft notes will sound. When set to OFF, the velocity switch is turned off and notes play at all velocity levels.

L4 VALUE

Sets the threshold between high and low velocity. This is the MIDI velocity number.

FI BACK

Press to return to the previous screen.

F8 MORE

Press to go to the controller screen, below.

CONTROLLERS

The next two screens contain settings for aftertouch pressure, modulation wheel, and expression pedal control of the sound. Following these is a screen for Assignable Controllers.

```
       A023  Launcher                    Controller
          Press  Modulation      Wheel  Modulation
      >  Dest1        Cutoff     Dest1   Vibrato DP  <
      >  Depth1          +15     Depth1         +31  <
      >  Dest2      FF  Bias     Dest2        Pitch  <
      >  Depth2           +2     Depth2            0  <
      [Back][S1  P][S2--][S3  A][S4  A][S5--][S6--][More]
```
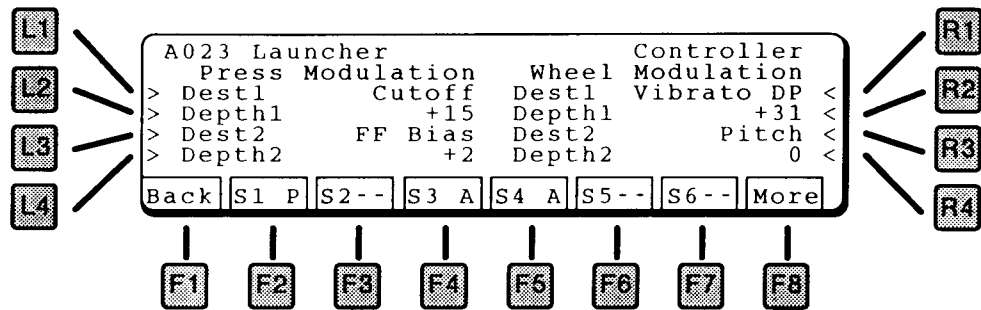
PRESSURE MODULATION

Channel Pressure, or *aftertouch,* can be routed to two destinations simultaneously (actually a *third* destination is possible by using the Assignable Controllers, page 58).

LI   DESTINATION I
Selects the destination for the modulation. The destination can be any of those listed below.

L2   DEPTH I
Sets the amount of the modulation. This can be positive or negative.

L3   DESTINATION 2
Selects the destination for the modulation. The destination can be any of those listed below.

L4   DEPTH 2
Sets the amount of the modulation. This can be positive or negative.

WHEEL MODULATION

The Modulation Wheel can be routed to two destinations simultaneously (actually a *third* destination is possible by using the Assignable Controllers, page 58). The Modulation Wheel is MIDI Controller 1.

RI   DESTINATION I
Selects the destination for the modulation. The destination can be any of those listed below.

R2   DEPTH I
Sets the amount of the modulation. This can be positive or negative.

R3   DESTINATION 2
Selects the destination for the modulation. The destination can be any of those listed below.

R4   DEPTH 2
Sets the amount of the modulation. This can be positive or negative.

FI   BACK
Press to return to the previous screen.

F8   MORE
Press to go to the expression pedal modulation screen, below.

EXPRESSION PEDAL

This screen contains settings for control of the sound using the expression pedal (MIDI controller 11).
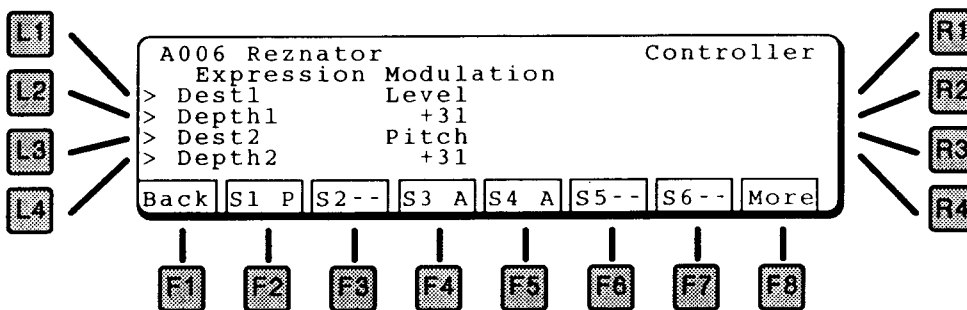
```
   A006  Reznator                    Controller
        Expression Modulation
     > Dest1          Level
     > Depth1          +31
     > Dest2          Pitch
     > Depth2          +31
    Back  S1 P  S2--  S3 A  S4 A  S5--  S6--  More
```

LI   DESTINATION I
Selects the destination for the modulation. The destination can be any of those listed below.

L2   DEPTH I
Sets the amount of the modulation. This can be positive or negative.

L3   DESTINATION 2
Selects the destination for the modulation. The destination can be any of those listed below.

L4   DEPTH 2
Sets the amount of the modulation. This can be positive or negative.

FI   BACK
Press to return to the previous screen.

F8   MORE
Press to go to the Assignable Controller screen, below.

MODULATION DESTINATIONS
Any of the modulation sources on these pages can be routed to any of the following destinations:

PITCH
Modifies the pitch. With a positive value, increasing the control makes the pitch go up, with a negative value, increasing the control makes the pitch go down.

CUTOFF
Modifies the filter cutoff. With a positive value, increasing the control makes the sound brighter, with a negative value, increasing the control makes the sound darker.

LEVEL
Modifies the volume. With a positive value, increasing the control makes the sound louder, with a negative value, increasing the control makes the sound softer.

VIBRATO DEPTH
Adds Vibrato (LFO controls pitch). This parameter sets the amount of vibrato.

GROWL DEPTH
Adds Growl (LFO controls filter). This parameter sets the amount of growl.

TREMOLO DEPTH
Adds Tremolo (LFO controls volume). This parameter sets the amount of tremolo.

LFO SPEED
Modifies the LFO speed. With a positive value, increasing the control makes the LFO faster, with a negative value, increasing the control makes the LFO slower.

ATTACK TIME
Controls the DCF & DCA Attack time. With a positive value, a higher key will have a longer attack time and a lower key will have a shorter attack time.

DECAY 1 TIME
Controls the DCF & DCA Decay1 time. With a positive value, a higher key will have a longer decay time and a lower key will have a shorter time.

RELEASE TIME
Controls the DCF & DCA Release time. With a positive value, a higher key will have a longer release time and a lower key will have a shorter time.

VELOCITY OFFSET
Scales the velocity, plus and minus.

RESONANCE
Controls the amount of filter resonance.

PANPOT
Controls the Left/Right panning of the sound

FORMANT FILTER BIAS
This control adjusts the Formant Filter Bias.

FORMANT FILTER ENV/LFO DEPTH
This control adjusts the Formant Filter LFO Depth.

FORMANT FILTER ENV/LFO SPEED
This control adjusts the Formant Filter LFO Speed.

HARMONICS LO
Controls the level of the lower harmonics. This does not adjust the *low notes*, rather it adjusts the *low end* of any note.

HARMONICS HI
Controls the level of the upper harmonics. This does not adjust the *high notes*, rather it adjusts the *high end* of any note.

HARMONICS EVEN
Controls the level of the even harmonics.

HARMONICS ODD
Controls the level of the odd harmonics, including the *fundamental*, or base pitch.

ASSIGNABLE CONTROLLER

Two additional controllers can be used for modulation. The controllers are assigned from the following screen.

```
A006 Reznator      Assignable Controller
> Source1    Bender    Source2   Ch Press  <
> Dest1       Pitch    Dest2  Vibrato Dp   <
> Depth1        +31    Depth2         +12  <

Back  S1 P  S2 - -  S3 A  S4 A  S5 - -  S6 - -
```
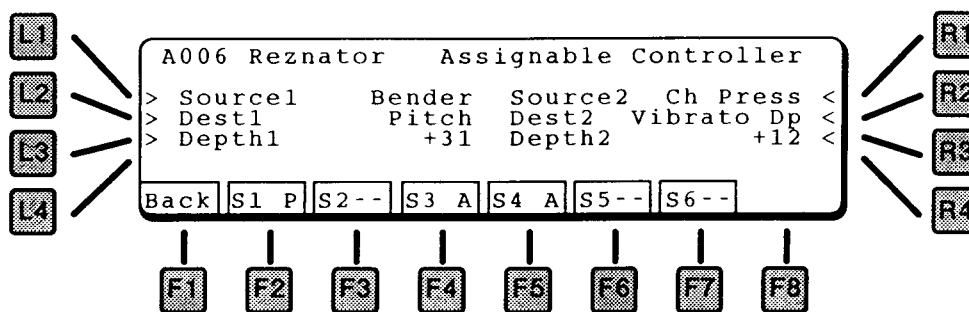
L1   SOURCE1
Selects the source for the modulation. The source can be any of those listed below.

L2   DESTINATION1
Selects the destination for the modulation. The destination can be any of those listed on page 56.

L3   DEPTH1
Sets the amount of the modulation. This can be positive or negative.

R1   SOURCE2
Selects the source for the modulation. The source can be any of those listed below.

R2   DESTINATION2
Selects the destination for the modulation. The destination can be any of those listed on page 56.

R3   DEPTH2
Sets the amount of the modulation. This can be positive or negative.

ASSIGNABLE CONTROLLER SOURCES
The following sources can be used for modulation:

BENDER
The Pitch Bend wheel.

CH PRESS (CHANNEL PRESSURE)
Aftertouch pressure (per channel).

WHEEL
The Modulation Wheel

EXPRESS (EXPRESSION PEDAL)
The Expression Pedal, MIDI Controller 11

MIDI VOLUME
The MIDI Volume command, MIDI Controller 7

PANPOT
The MIDI Pan command, MIDI Controller 10

G CONT 1 ~ 8 (GENERAL CONTROLLERS 1~ 8)
The eight MIDI General Purpose Controllers – controller numbers 16–19 & 80–83.

WRITE

After editing, save your sound by pressing the WRITE button in the COMMON section of the front panel. The following screen appears.

```
A001  Runner
> Write                                    Delete <
> Disk Write
```

LI WRITE

This saves your patch to the internal memory area.

```
A001  Runner
                              Write to   A001  <
  !"#$%&'()*+,-./0123456789:;<=>?
 @ABCDEFGHIJKLMNOPQRSTUVWXYZ[ ]^_
 `abcdefghijklmnopqrstuvwxyz[|]-
  <    >        Runner              Exec
```
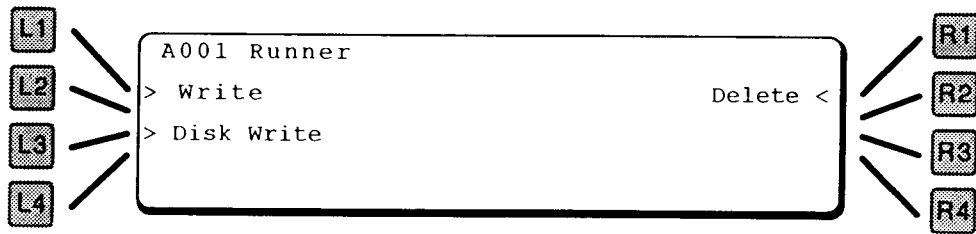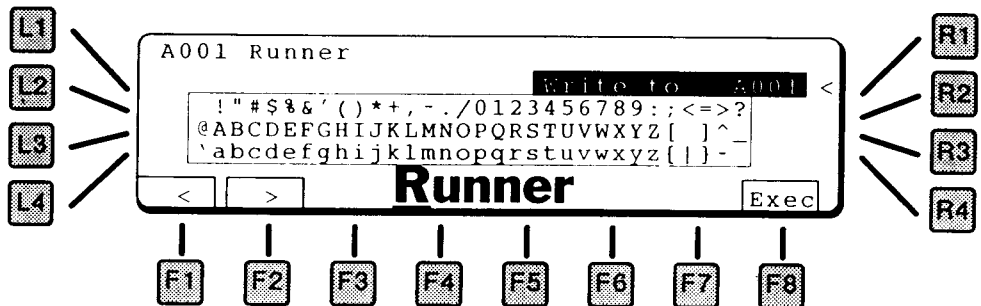
RI WRITE LOCATION
Use the Value dial to select a location to save your patch.

NOTE:
If the message "Memory Full" appears on the display, select another bank (A or D) or use the Disk Write function (below) instead.

FI/F2 CHARACTER
This names the patch. Use the F1 and F2 keys to select a character in the name (moves the cursor), and the Value dial to select a letter.

F8 EXECUTE
Stores the patch.

L3 DISK WRITE

You can also write ADD Patches to disk. This is useful if your internal memory is full.
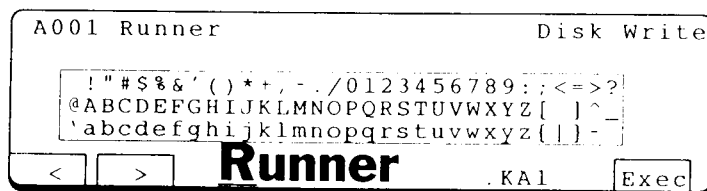
```
A001  Runner                        Disk Write
  !"#$%&'()*+,-./0123456789:;<=>?
 @ABCDEFGHIJKLMNOPQRSTUVWXYZ[ ]^_
 `abcdefghijklmnopqrstuvwxyz[|]-
  <    >     Runner        .KA1     Exec
```

F1/F2 CHARACTER

This names the file on the disk. Use the F1 and F2 keys to select a character in the name (moves the cursor), and the Value dial to select a letter.

F8   EXECUTE

Press Execute to save the file. It will be saved with the file extension shown after the name.

R1 DELETE

Since there is not a fixed number of ADD patches in the Single Bank, you may need to delete patches to make room for new ones.

```
┌─────────────────────────────────────────────┐
│  A001  Runner                      Delete    │
│                                              │
│           Delete  ███████████████            │
│           and will  NOT  be backed  up.      │
│                                              │
│                                   ┌─────┐    │
│                                   │Exec │    │
│                                   └─────┘    │
└─────────────────────────────────────────────┘
```
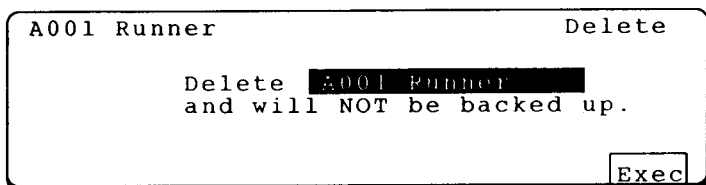
Use the Value dial to choose the patch to delete, and press F8 (Execute). Sure? Press **F8** to continue.

EFFECT SECTION

![black bar]

The Effect section contains the settings for the digital effects generator.

There is one Effect generator for the entire K5000. When in Single mode, the entire effect generator is available for the sound. When in Multi mode, the effects settings of the Single patch are disregarded, and the Multi effects settings are used instead.

EFFECT PAGE PARAMETERS

The main effects page displays a block diagram of the algorithm selected.

```
 M01 NewWorld                         Effect
 Algorithm 1
   1 ─┬[E1]┬[E2]┐
   2 ─┘    └    │
   3 ─────────●─[E3]─[E4]┐─[Rev]─[GEQ]──Main
   4 ────────────────────┘              Indv
 [Alg] [E1] [E2] [E3] [E4] [Rev] [GEQ] [Ctrl]
```

```
 [F1] [F2] [F3] [F4] [F5] [F6] [F7] [F8]
```
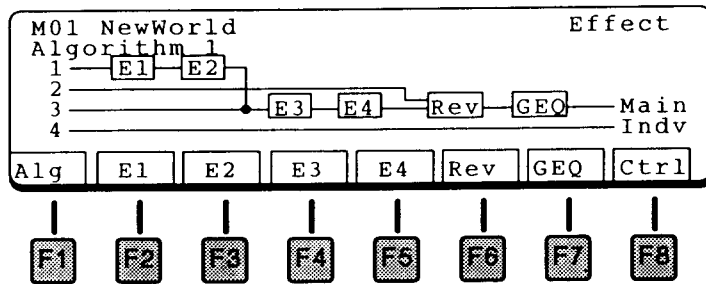
VALUE DIAL   ALGORITHM SELECT
> The algorithm can be selected by turning the Value dial. In Single mode, press
> **RI** to access the Algorithm select.

FI   ALGORITHM PAGE
> Returns to the Algorithm Page, *this page,* from other effects pages.

F2   EI (EFFECT I)
> Goes to the edit parameters for the Effect 1 block. Any of the effects blocks can
> be assigned one of 36 different effects, which include a variety of delays,
> chorus, flanging, and distortion. The available controls vary from one effect to
> another.
>
> See page 67 for a description of the 36 available effect types.

F3   E2 (EFFECT 2)
> Goes to the edit parameters for the Effect 2 block.

F4   E3 (EFFECT 3)
> Goes to the edit parameters for the Effect 3 block.

F5   E4 (EFFECT 4)
> Goes to the edit parameters for the Effect 4 block.

F6   REVERB
> Goes to the edit parameters for the Reverb block. The reverb block can be
> assigned one of 11 different reverb types, which include a variety of rooms,
> halls and, plates. The available controls vary from one reverb type to another.
>
> See page 92 for a description of the available reverb types.

F7   GRAPHIC EQ
Goes to the edit parameters for the Graphic EQ block.

```
 A001  ABCDEFGH                        Graphic EQ

        ┬     ┼     ┴     ┼     ┼     ┼     ┼
 -  -  [ ]   [ ]   [ ]   [ ]   [ ]   [ ]   [ ]  - -

        +12    0    -12    0    +2    -2    0dB
 [ALG] [100] [200] [450] [1K] [2K] [4K] [8K]
```

```
 [F1] [F2] [F3] [F4] [F5] [F6] [F7] [F8]
```
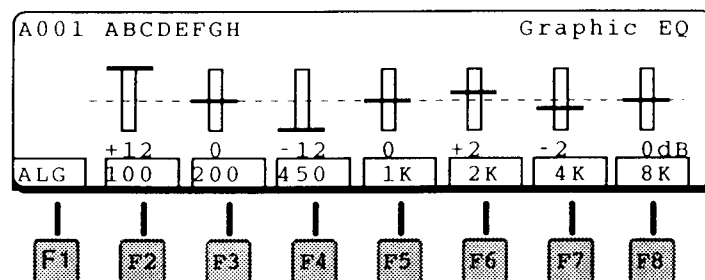
Use the F2 through F8 keys to select an EQ band, and the Value dial to change the amount. The slider will change to visually indicate the setting, the number underneath shows the exact amount.

F8   CONTROL
Goes to the Effect Controller page, below. Two controllers can be used to control effect or reverb depth. An expression pedal could be used to add reverb or aftertouch pressure could be used to add chorusing.

```
┌─────────────────────────────────────────────┐
│ M01 NewWorld          Effect Controller      │
│                                              │
│ > Source1    Bender   Source2  Ch Press  <   │
│ > Dest1   E1 Dry/Wet  Dest2 RV Dry/Wet1  <   │
│ > Depth1         +31  Depth2        +12  <   │
│                                              │
│ [Alg] [E1] [E2] [E3] [E4] [Rev] [GEQ][Ctrl]  │
└─────────────────────────────────────────────┘
   F1   F2   F3   F4   F5   F6   F7   F8
```

LI   SOURCEI
Selects the source for the modulation. The source can be any of those listed below.

L2   DESTINATION I
Selects the destination for the modulation. This can be the level of the reverb, or a modulatable parameter in one of the four effects blocks (Effect1 – Effect4).

L3   DEPTHI
Sets the amount of the modulation. This can be positive or negative.

RI   SOURCE2
Selects the source for the modulation. The source can be any of those listed below.

R2   DESTINATION2
Selects the destination for the modulation. This can be the level of the reverb, or a modulatable parameter in one of the four effects blocks (Effect1 – Effect4).

R3   DEPTH2
Sets the amount of the modulation. This can be positive or negative.

MODULATION SOURCES
The sources that can be used to control the effects are:

BENDER
The Pitch Bend wheel.

CH PRESS (CHANNEL PRESSURE)
Aftertouch pressure (per channel).

WHEEL
The Modulation Wheel

EXPRESS (EXPRESSION PEDAL)
The Expression Pedal

MIDI VOLUME
The MIDI Volume commend, MIDI Controller 7

PANPOT
The MIDI Pan commend, MIDI Controller 10

The eight MIDI General Purpose Controllers – Continuous Controllers 16–19 & 80–83.

SOURCE ASSIGNMENT GRID (SINGLE PATCH ONLY)

In Single mode, the Source Assignment Grid on the left side of the screen is used to connect the (up to) six sources in each patch to the four inputs of the effect algorithm.

Press any of the left hand buttons to access the Source Assignment Grid.

Source Number (Use Value dial to change)

Input Assignment (Use L1 – L4 to change)
Shows source 1 assigned to input 3
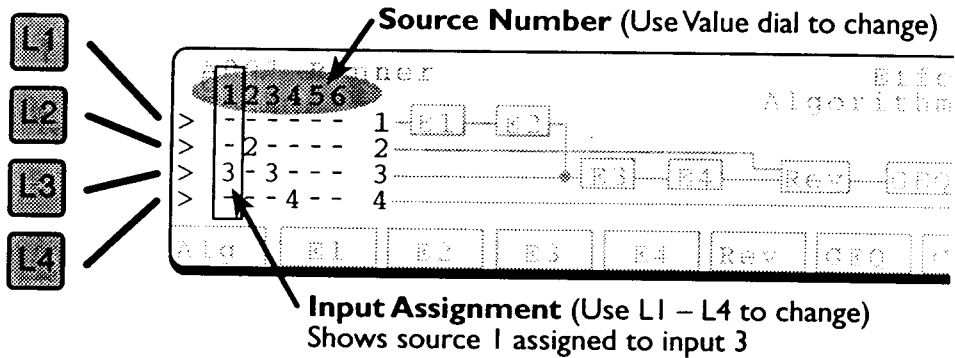
VALUE DIAL

Selects which source to assign. Sources 1 through 6 are displayed, but only the sources actually used in the Single patch can be assigned.

L1   INPUT 1 ASSIGN

L2   INPUT 2 ASSIGN

L3   INPUT 3 ASSIGN

L4   INPUT 4 ASSIGN

After selecting a source with the value dial, press the L1, L2, L3, or L4 buttons to assign that source to input 1, 2, 3, or 4, respectively. The number 1, 2, 3, or 4 is displayed in the column indicating its assignment.

ALGORITHMS

Anatomy of an Effect Algorithm
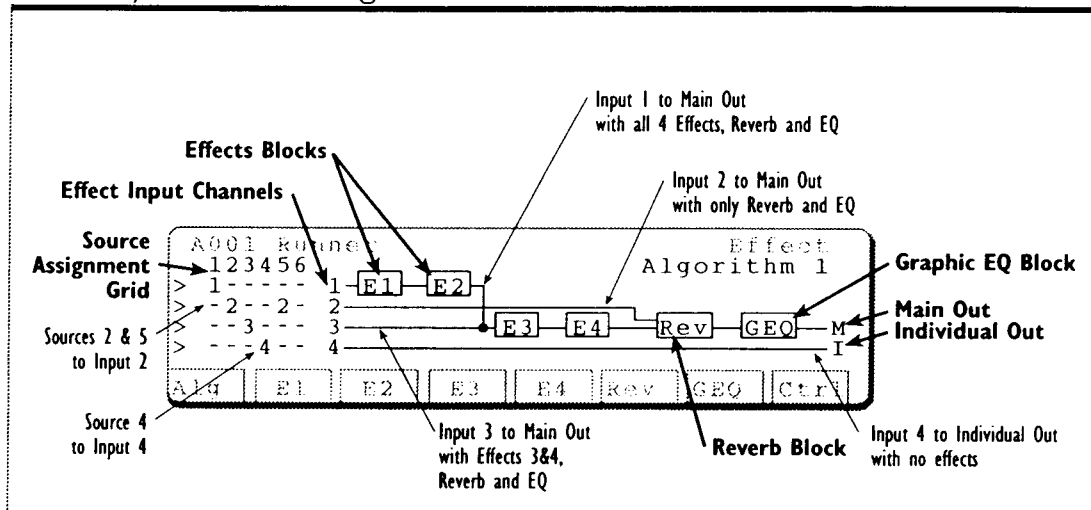
The Value dial (**R1**) selects the effect algorithm to be used. There are four different algorithms available, and the arrangement of the effects blocks varies depending upon the algorithm chosen.

There are four input channels into the effects algorithms. In Single mode, the left of the block diagram shows the Source Assignment Grid, with controls routing of each source to the input channels. In Multi ot Compose mode, the assignment of each single section to the four input channels is controlled by the Effect Path function in the Section menu.

ALGORITHM I
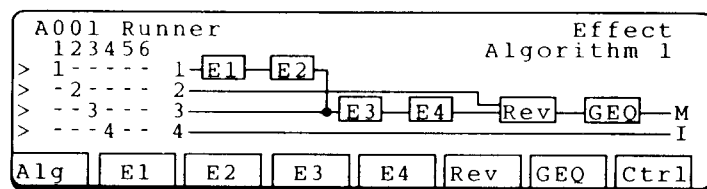
Input 1 passes through all four effects blocks, on its way to the reverb, EQ and main outputs. It merges with input 3 after the second effects block.

Input 2 goes directly to the reverb block, EQ, and main outputs. It has its own wet/dry mix in the reverb block.

Input 3 passes through two of the four effects blocks, on its way to the reverb, EQ and main outputs.

Input 4 goes directly to the Individual outputs without any effect, reverb or EQ. This is useful for sending sounds directly out of the K5000S for external signal processing.

ALGORITHM 2

```
┌─────────────────────────────────────────────────┐
│  A001  Runner                        Effect      │
│    123456                       Algorithm  2     │
│ > 1-----    1┤E1├┐                                │
│ > -2----    2────┤E2├┐                            │
│ > --3---    3────────┤E3├────┐ ┌Rev├─┤GEQ├─M      │
│ > ---4--    4────────────┤E4├┘                  I │
│ ┌───┐ ┌───┐ ┌───┐ ┌───┐ ┌───┐┌───┐ ┌───┐ ┌────┐  │
│ │Alg│ │E1 │ │E2 │ │E3 │ │E4 ││Rev│ │GEQ│ │Ctrl│  │
│ └───┘ └───┘ └───┘ └───┘ └───┘└───┘ └───┘ └────┘  │
└─────────────────────────────────────────────────┘
```
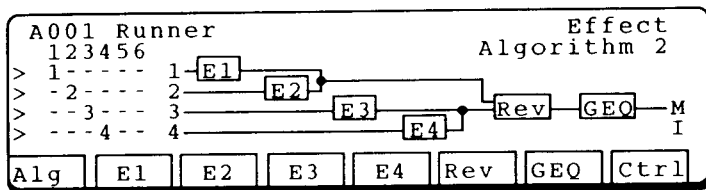
In this algorithm, each input goes through its own effects block, then the four are paired together for reverb and EQ.

ALGORITHM 3

```
┌─────────────────────────────────────────────────┐
│  A001  Runner                        Effect      │
│    123456                       Algorithm  3     │
│ > 1-----    1┤E1├┐                                │
│ > -2----    2───┤E2├┐                             │
│ > --3---    3───────┤E3├───┤Rev├─┤GEQ├─M          │
│ > ---4--    4───────────┤E4├──────────── I        │
│ ┌───┐ ┌───┐ ┌───┐ ┌───┐ ┌───┐┌───┐ ┌───┐ ┌────┐  │
│ │Alg│ │E1 │ │E2 │ │E3 │ │E4 ││Rev│ │GEQ│ │Ctrl│  │
│ └───┘ └───┘ └───┘ └───┘ └───┘└───┘ └───┘ └────┘  │
└─────────────────────────────────────────────────┘
```
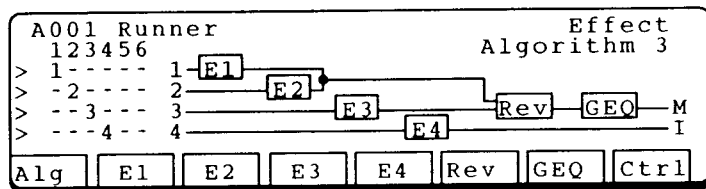
In this algorithm, each input goes through its own effects block, then 1, 2, and 3 are Multined for reverb and EQ.

Input 3 has its own wet/dry mix in the reverb block.

After passing through its effect, Input 4 goes directly to the Individual outputs. This could be useful for a Bass sound running through a phaser, but without reverb.

ALGORITHM 4

```
┌─────────────────────────────────────────────────┐
│  A001  Runner                        Effect      │
│    123456                       Algorithm  4     │
│ > 1-----    1┤E1├┤E2├┐                            │
│ > -2----    2────────┤                            │
│ > --3---    3────────┤E3├┤E4├┐ ┌Rev├─┤GEQ├─M      │
│ > ---4--    4────────────────── I                 │
│ ┌───┐ ┌───┐ ┌───┐ ┌───┐ ┌───┐┌───┐ ┌───┐ ┌────┐  │
│ │Alg│ │E1 │ │E2 │ │E3 │ │E4 ││Rev│ │GEQ│ │Ctrl│  │
│ └───┘ └───┘ └───┘ └───┘ └───┘└───┘ └───┘ └────┘  │
└─────────────────────────────────────────────────┘
```
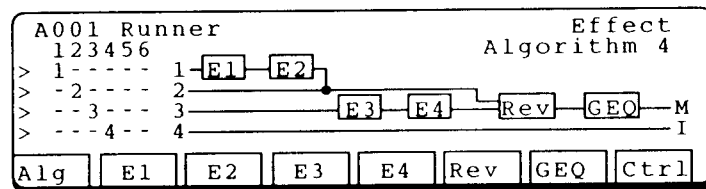
Input 1 passes through the E1 and E2 effects blocks, on its way to the reverb, EQ and main outputs. It merges with input 2 after the second effects block.

Input 2 goes directly to the reverb block, EQ, and main outputs.

Input 3 passes through E3 and E4 of the four effects blocks, on its way to the reverb, EQ and main outputs. It has its own wet/dry mix in the reverb block.

Input 4 goes directly to the Individual outputs without any effect, reverb or EQ.

EFFECT TYPES
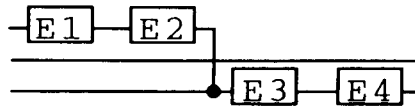
The four effects blocks represent individual effects. Any of the effects blocks can be assigned one of 36 different effects, which include a variety of delays, chorus, flanging, and distortion. The available controls vary from one effect to another.

EARLY REFLECTION 1
EARLY REFLECTION 2
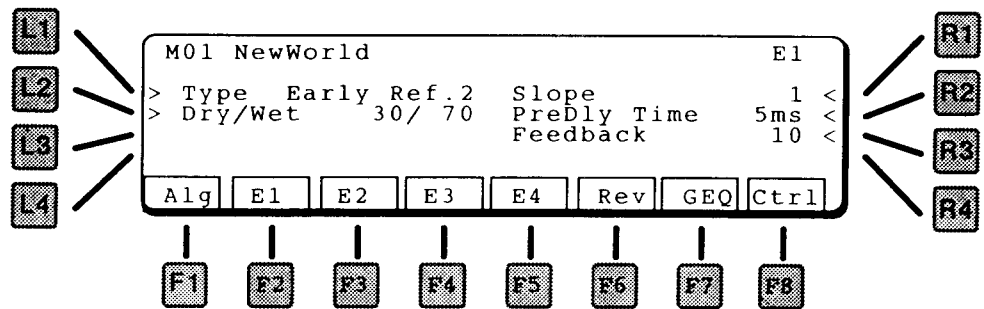
LI TYPE
Selects the type of effect. Early Reflection 1 has a shorter reflection time than Early Reflection 2.
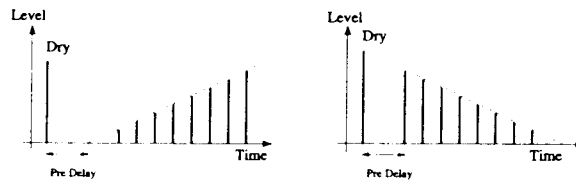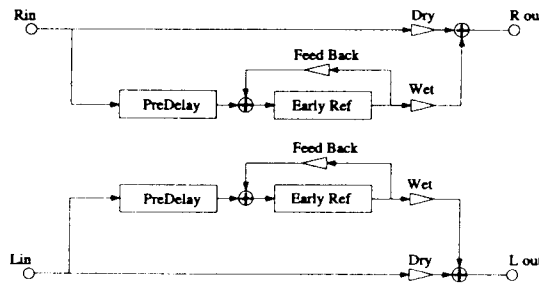
L2 DRY/WET
Controls the ratio between the original sound (dry) and the effected sound (wet).

RI SLOPE
This softens the reflection by changing the delay amplitudes. See diagram.

R2 PREDELAY TIME
The amount of delay time before the effect.

R3 FEEDBACK
Amount of delay looped back into the input. This creates a repeating delay.

TAP DELAY 1
TAP DELAY 2

```
M01 NewWorld                              E1
> Type      Tap Dly1    Dly Time 1   150mS  <
> Delay Level 100       Tap Level     90    <
                        Dly Time 2   175mS  <
                        Feedback      50    <

  Alg   E1    E2    E3    E4    Rev   GEQ  Ctrl
```
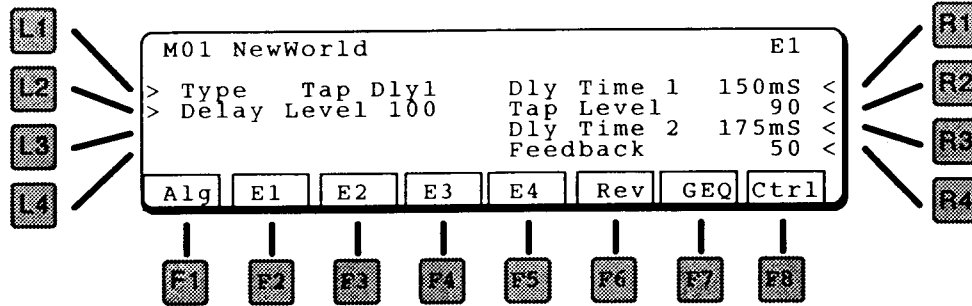
L1 TYPE
Selects the type of effect.

TAP DELAY 1
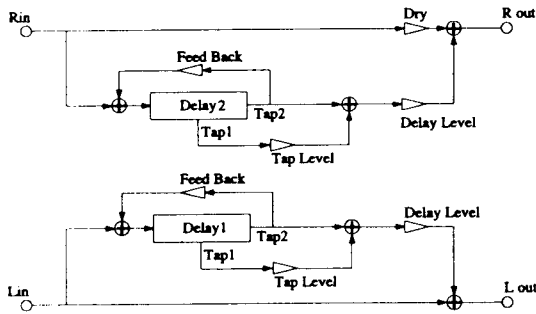
TAP DELAY 2
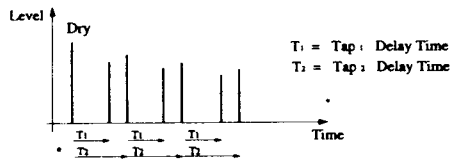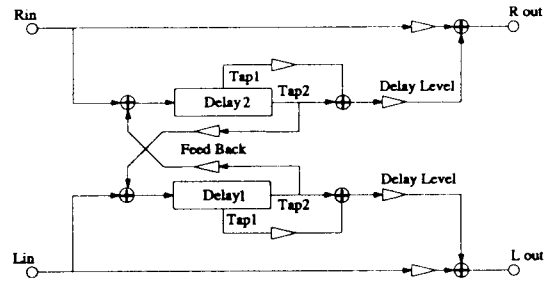
L2 DELAY LEVEL
Master level of this effect block.

R1 DELAY TIME 1
The delay time for delay 1.

R2 TAP LEVEL
The level of delay 1.

R3 DELAY TIME 2
The delay time for delay 2.

R4 FEEDBACK

Amount of delay looped back into the input. This creates a repeating delay. The original sound (input) and Delay 1 are repeated together at the delay 2 time.

SINGLE DELAY

This effect has a single delay, with a fine time adjustment for synchronizing to the beat.
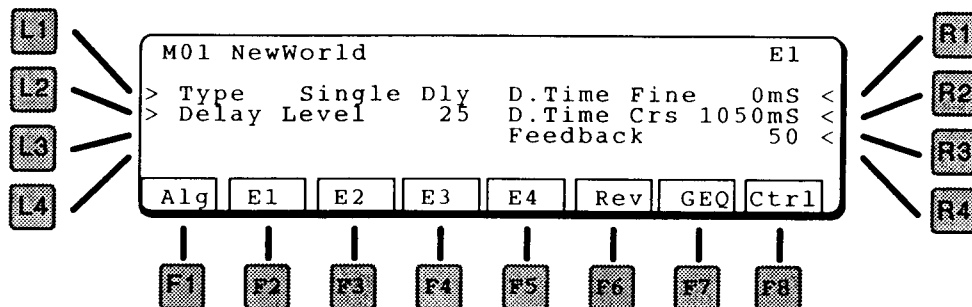
```
M01  NewWorld                          E1
> Type      Single Dly   D.Time Fine      0mS  <
> Delay Level       25   D.Time Crs   1050mS  <
                         Feedback          50  <

   Alg    E1    E2    E3    E4    Rev   GEQ  Ctrl
```

LI TYPE

Selects the type of effect.

Delay Time = Delay Coarse + Delay Fine
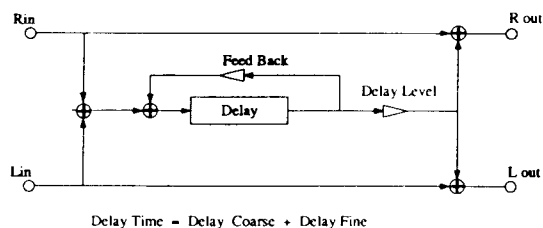
L2 DELAY LEVEL

Master level of this effect block.

RI DELAY TIME FINE

Adjusts the delay time in 1 mS increments, from 0 - 9 mS.

R2 DELAY TIME COARSE

Adjusts the delay time in 10mS increments, from 0 - 1270 mS. (1.27 seconds)

R3 FEEDBACK

Amount of delay looped back into the input. This creates a repeating delay.

DUAL DELAY

This effect has two delays, panned hard left and right.
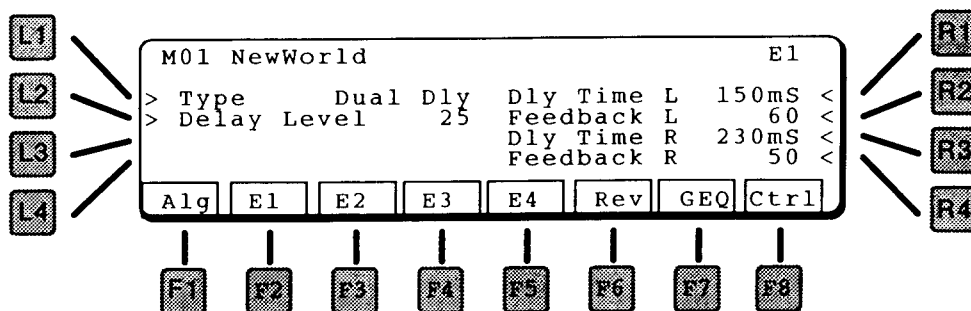
```
M01  NewWorld                                    E1
> Type           Dual Dly   Dly Time  L    150mS  <
> Delay Level         25    Feedback  L       60  <
                           Dly Time  R    230mS  <
                           Feedback  R       50  <
 [Alg]  [E1]  [E2]  [E3]  [E4]  [Rev]  [GEQ]  [Ctrl]
```

LI   TYPE
Selects the type of effect.

L2   DELAY LEVEL
Master level of this effect block.

RI   DELAY TIME LEFT
Adjusts the delay time from 0 - 720mS.

R2   FEEDBACK LEFT
Amount of delay looped back into the input. This creates a repeating delay.

R3   DELAY TIME RIGHT
Adjusts the delay time from 0 - 720mS.

R4   FEEDBACK RIGHT
Amount of delay looped back into the input. This creates a repeating delay.

STEREO DELAY

This is a single stereo delay. Repeats maintain the same stereo panning as the original signal.
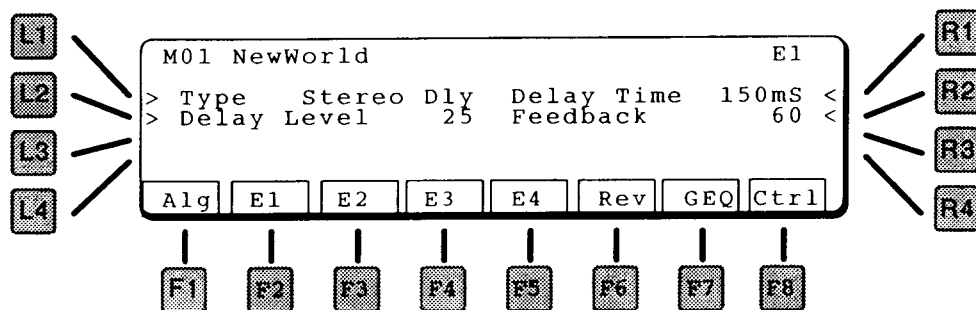
LI TYPE

Selects the type of effect.

L2 DELAY LEVEL

Master level of this effect block.

RI DELAY TIME

Adjusts the delay time from 0 - 720 mS.

R2 FEEDBACK

Amount of delay looped back into the input. This creates a repeating delay.

CROSS DELAY

Cross Delay is a single delay, with repeats alternating left and right.
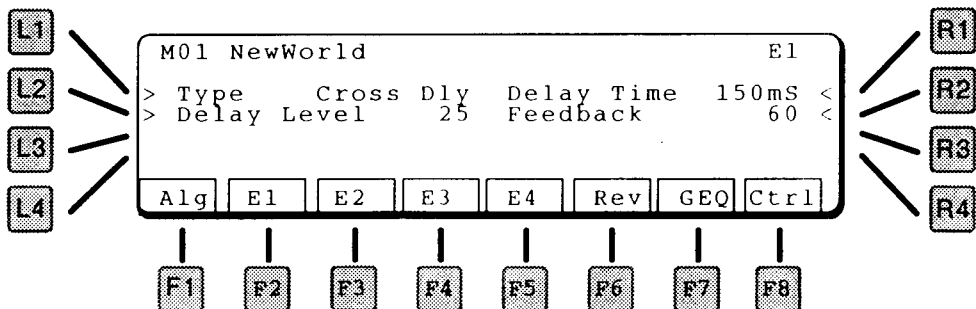
L1   TYPE

Selects the type of effect.
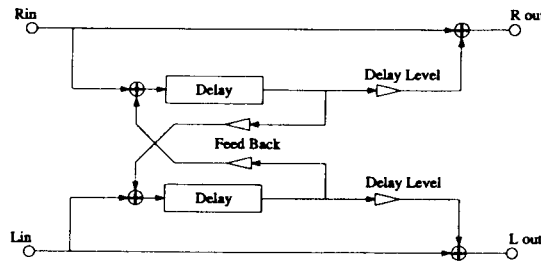
L2   DELAY LEVEL

Master level of this effect block.

R1   DELAY TIME

Adjusts the delay time from 0 - 720 mS.

R2   FEEDBACK

Amount of delay looped back into the input. This creates a repeating delay.

AUTO PAN

Auto Pan moves the input source back and forth across the stereo field.
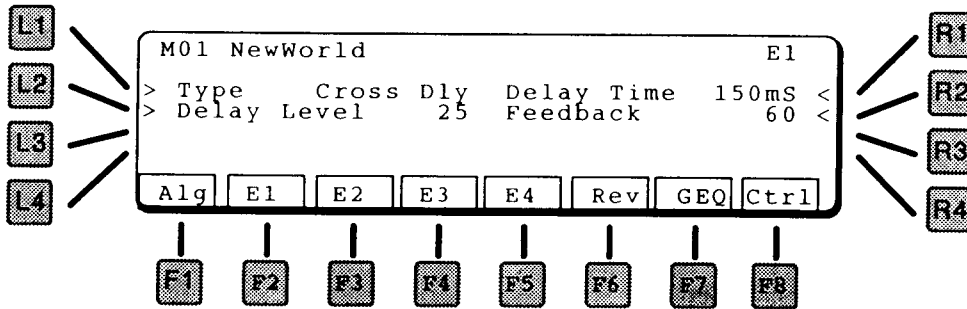

```
M01  NewWorld                              E1
> Type        Cross  Dly   Delay Time    150mS <
> Delay Level        25    Feedback         60 <

  Alg   E1   E2   E3   E4   Rev  GEQ Ctrl
```

L1   TYPE

Selects the type of effect.
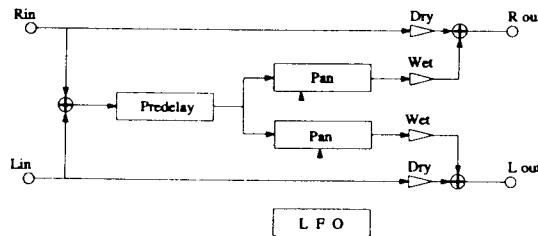
L2   DRY/WET

Controls the ratio between the original (dry) and the panned sound (wet).

R1   SPEED

Adjusts the panning speed.

R2   DEPTH

Controls how wide the panning is.

R3 PREDELAY TIME
Adds a delay (up to 100mS) before the panned sound starts

R4 WAVE
Selects the LFO waveform used to control the panning. The choices are SINe or TRIangle.

AUTO PAN & DELAY

Auto Pan moves the input source back and forth across the stereo field, with an added delay.

LI TYPE
Selects the type of effect.
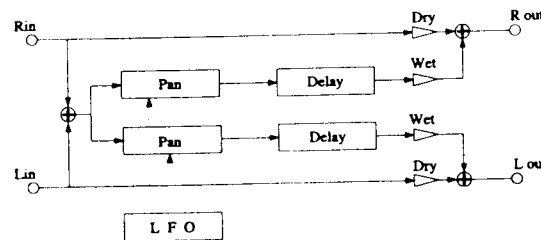
L2 DRY/WET
Controls the ratio between the original (dry) and the panned sound (wet).

RI SPEED
Adjusts the panning speed.

R2 DEPTH
Controls how wide the panning is.

R3 DELAY TIME
Delays the panned sound (up to 200mS) The repeating delay does not pan.

R4 WAVE
Selects the LFO waveform used to control the panning. The choices are SINe or TRIangle.

CHORUS 1
CHORUS 2

Chorus is a slight detune of the sound, which adds depth and richness to the sound. Great for guitars, electric pianos, organs, strings, choirs.

Chorus 1 is a true stereo in / stereo out chorus – the left and right channels are independent.

Chorus 2 is a mono in / stereo out chorus – the left and right channels are summed together before entering a stereo chorus unit.

```
M01 NewWorld                                E1
> Type        Chorus1   Speed              12  <
> Dry/Wet       0/100   Depth             100  <
                        PreDly  Time      34mS
                        Wave              Sin  <
  Alg   E1   E2   E3   E4   Rev   GEQ   Ctrl
```

LI   TYPE
Selects the type of effect.

CHORUS I

CHORUS 2

L2   DRY/WET
Controls the ratio between the original (dry) and the chorused sound (wet).

RI   SPEED
Adjusts the chorus speed.
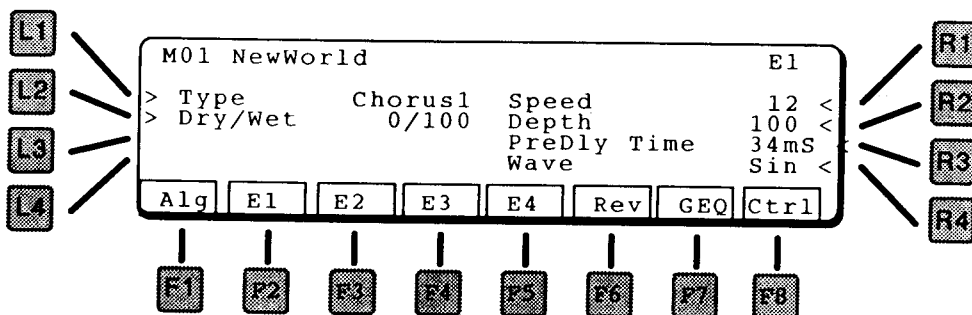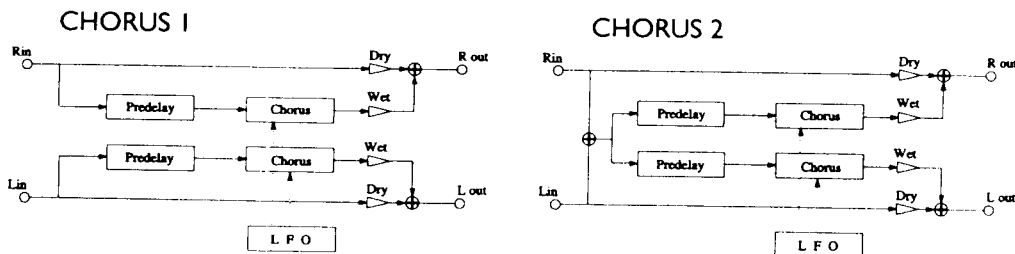
R2   DEPTH
Controls how wide the detune is.

R3   PREDELAY TIME
Adds a delay (up to 100mS) before the chorus sound starts.

R4   WAVE
Selects the LFO waveform used to control the panning. The choices are SINe or TRIangle.

CHORUS 1 & DELAY
CHORUS 2 & DELAY

Chorus 1 is a true stereo in / stereo out chorus – the left and right channels are independent.

Chorus 2 is a mono in / stereo out chorus – the left and right channels are summed together before entering a stereo chorus unit.

```
┌─────────────────────────────────────────────────────┐
│  M01  NewWorld                              E1        │
│ > Type   Chorus1 & D    Speed           12  <         │
│ > Dry/Wet        0/100   Depth          100  <        │
│                          Delay Time     34mS <        │
│                          Wave           Sin  <        │
│  ┌────┬───┬───┬───┬───┬─────┬────┬────┐               │
│  │Alg │E1 │E2 │E3 │E4 │ Rev │GEQ │Ctrl│               │
└─────────────────────────────────────────────────────┘
```

LI   TYPE
Selects the type of effect.

CHORUS I   CHORUS 2

L2   DRY/WET
Controls the ratio between the original (dry) and the chorused sound (wet).

RI   SPEED
Adjusts the chorus speed.
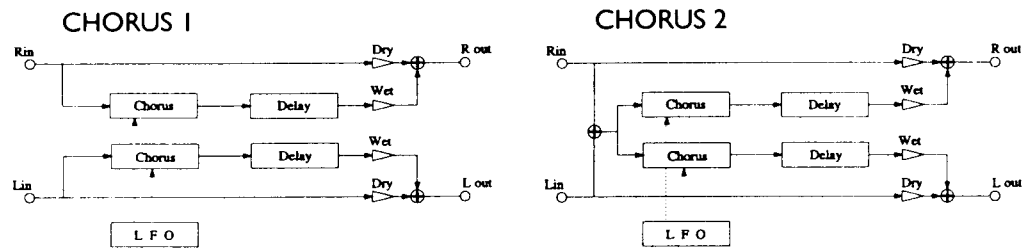
R2   DEPTH
Controls how wide the detune is.

R3   DELAY TIME
Adds a repeating delay of the chorused sound (up to 200mS) .

R4   WAVE
Selects the LFO waveform used to control the panning. The choices are SINe or TRIangle.

FLANGER 1
FLANGER 2

Flange is a slight detune of the sound, with an airy phasing, which adds depth to the sound. Great for guitars and electric pianos.

In Flanger 1, the flange control is 180° out of phase between the left and right channels. In Flanger 2, the flange control is *in* phase between the left and right channels.


```
M01  NewWorld                                    E1
> Type         Flanger1   Speed              12  <
> Dry/Wet       52/ 48    Depth             100  <
                          PreDly Time      34mS  <
                          Feedback           46  <
  Alg    E1    E2    E3    E4    Rev   GEQ  Ctrl
```
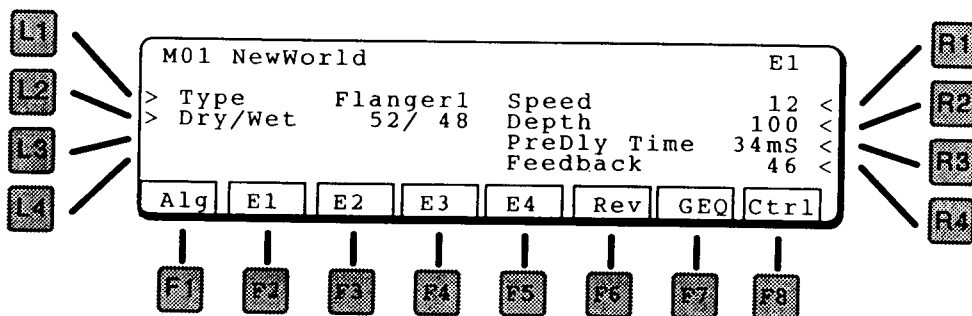
L1 TYPE
Selects the type of effect.

L2 DRY/WET
Controls the ratio between the original (dry) and the flanged sound (wet).

R1 SPEED
Adjusts the flanger speed.

R2 DEPTH
Controls how wide the detune is.

R3 PREDELAY TIME
Adds a delay (up to 100mS) before the flanger starts.

R4 FEEDBACK
Controls the feedback of the flanging sound.

FLANGER 1 & DELAY
FLANGER 2 & DELAY

In Flanger 1, the flange control is 180° out of phase between the left and right channels. In Flanger 2, the flange control is in phase between the left and right channels.

```
┌─────────────────────────────────────────────────┐
│ M01  NewWorld                              E1     │
│                                                   │
│ > Type  Flanger2 & D    Speed          12  <      │
│ > Dry/Wet       52/ 48  Depth         100  <      │
│                         Delay Time    34mS <      │
│                         Feedback       46  <      │
│ ┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐  │
│ │Alg ││ E1 ││ E2 ││ E3 ││ E4 ││Rev ││GEQ ││Ctrl│  │
│ └────┘└────┘└────┘└────┘└────┘└────┘└────┘└────┘  │
└─────────────────────────────────────────────────┘
```

LI   TYPE
Selects the type of effect.

L2   DRY/WET
Controls the ratio between the original (dry) and the flanged sound (wet).

RI   SPEED
Adjusts the flanger speed.
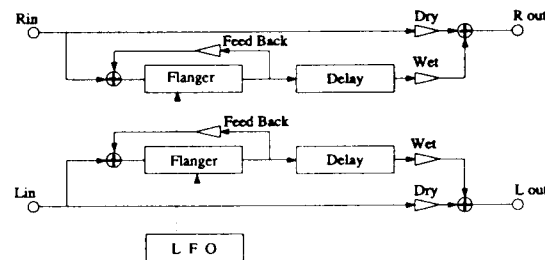
R2   DEPTH
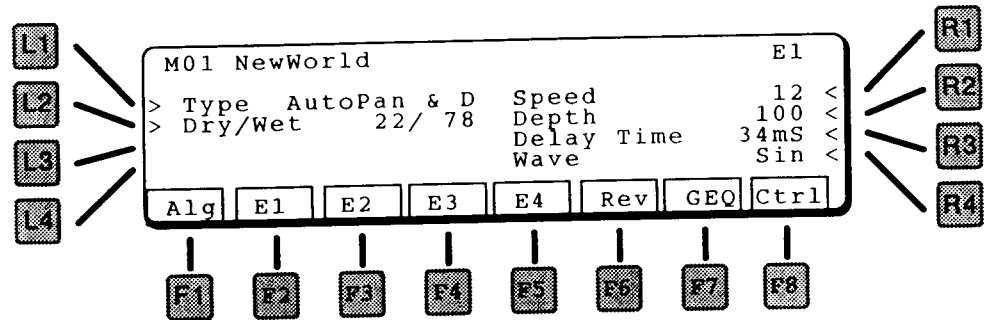Controls how wide the detune is.

R3   DELAY TIME
Adds a repeating delay of the flanged sound (up to 200mS).

R4   FEEDBACK
Controls the feedback of the flanging sound. Does not affect the delay.

ENSEMBLE

Ensemble is a three phase chorus, with each of the three chorus units at a different phase and frequency. This gives a slightly richer sound than the Celeste effect, below.
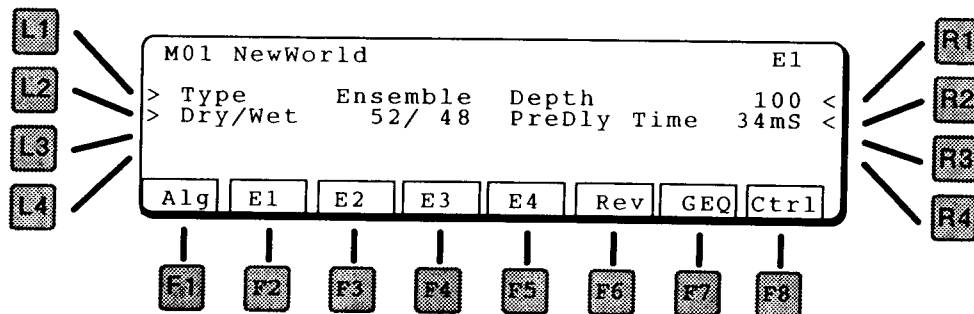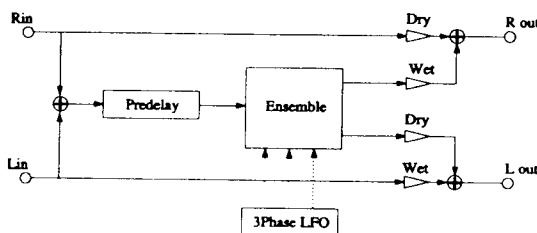
```
 M01 NewWorld                                    E1
> Type          Ensemble   Depth           100 <
> Dry/Wet         52/ 48    PreDly Time     34mS <

  Alg   E1   E2   E3   E4   Rev   GEQ  Ctrl
```

LI TYPE
Selects the type of effect.

L2 DRY/WET
Controls the ratio between the original (dry) and the chorused sound (wet).

RI DEPTH
Adjusts the amount of effect.

R2 PREDELAY TIME
Adds a delay (up to 100mS) before the ensemble starts.

ENSEMBLE & DELAY
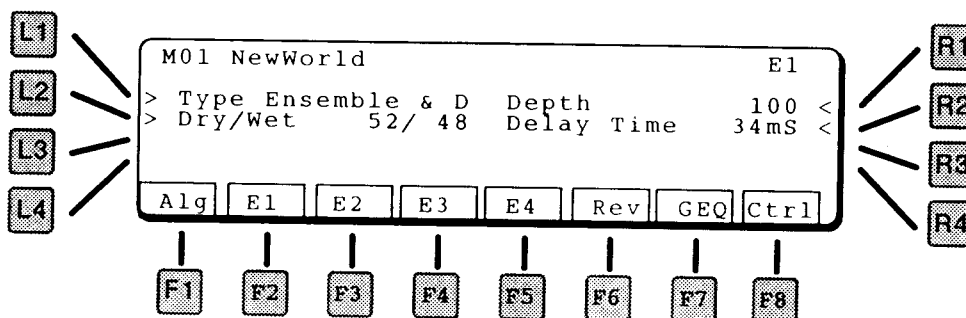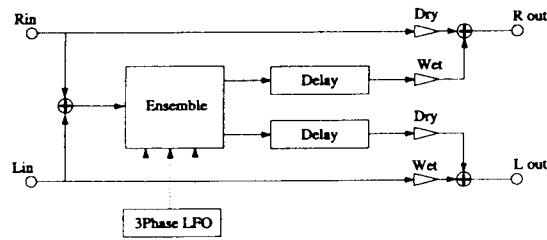
```
 M01 NewWorld                                    E1
> Type Ensemble & D   Depth            100 <
> Dry/Wet       52/ 48  Delay Time      34mS <

  Alg   E1   E2   E3   E4   Rev   GEQ  Ctrl
```

LI TYPE

Selects the type of effect.

L2 DRY/WET

Controls the ratio between the original (dry) and the chorused sound (wet).

RI DEPTH

Adjusts the ensemble depth.

R2 DELAY TIME

Adds a repeating delay of the Ensemble sound (up to 200mS).

CELESTE

Celeste is a three phase chorus, with each of the three chorus units at a different phase.
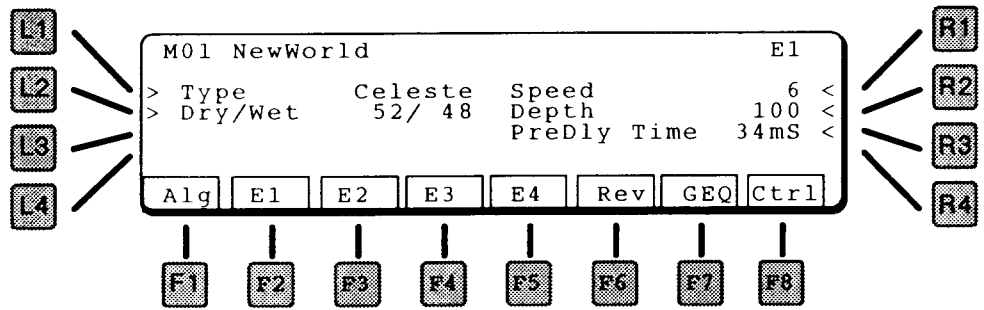

```
M01  NewWorld                              E1
> Type          Celeste   Speed            6 <
> Dry/Wet        52/ 48   Depth          100 <
                          PreDly  Time   34mS <

Alg   E1   E2   E3   E4   Rev   GEQ   Ctrl
```

LI TYPE

Selects the type of effect.

L2 DRY/WET

Controls the ratio between the original (dry) and the chorused sound (wet).

RI SPEED
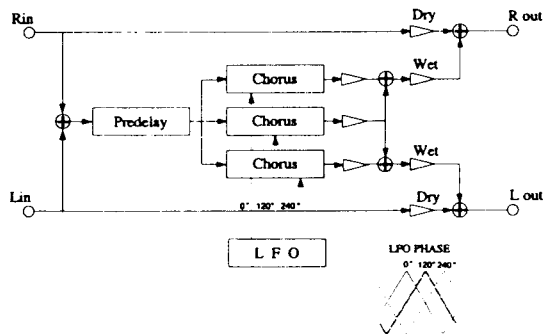
Adjusts the ensemble speed.

R2　DEPTH

Controls how wide the detune is.

R3　PREDELAY TIME

Adds a delay (up to 100mS) before the celeste starts.

CELESTE & DELAY
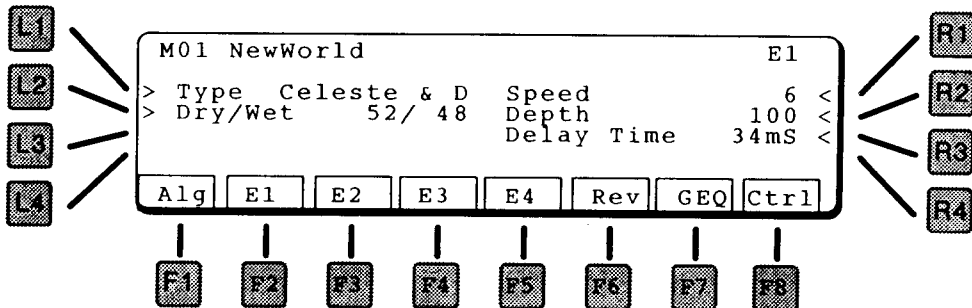
LI　TYPE
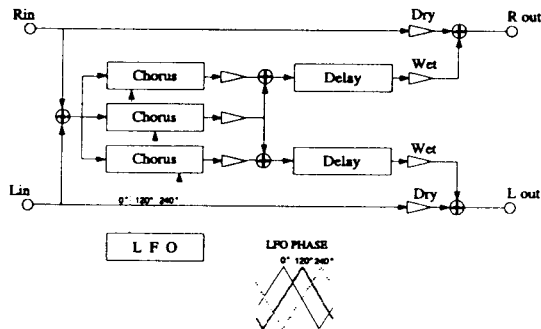
Selects the type of effect.

L2　DRY/WET

Controls the ratio between the original (dry) and the chorused sound (wet).

RI　SPEED

Adjusts the ensemble speed.

R2　DEPTH

Controls how wide the detune is.

R3　DELAY TIME

Adds a repeating delay of the Celeste sound (up to 200mS).

TREMOLO

Tremolo changes the volume of the sound, making it louder and softer. Can be used for surf guitar sounds.
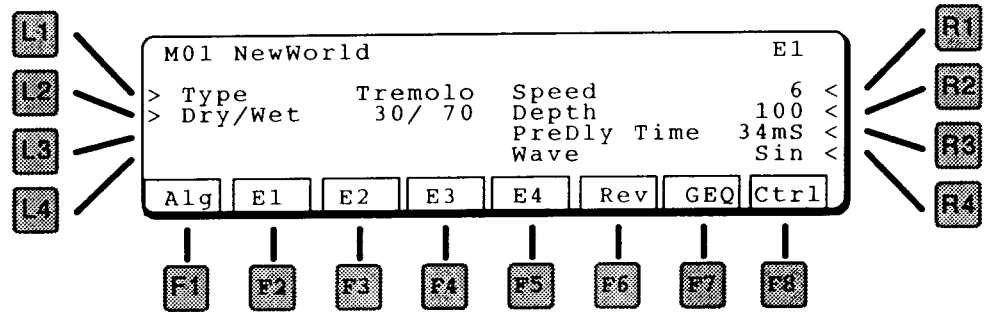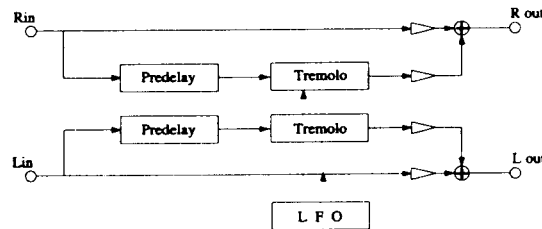
```
┌─────────────────────────────────────────────────────┐
│ M01 NewWorld                              E1         │
│                                                       │
│ > Type          Tremolo   Speed            6  <       │
│ > Dry/Wet        30/ 70   Depth          100  <       │
│                           PreDly  Time   34mS <       │
│                           Wave           Sin  <       │
│ ┌────┬────┬────┬────┬────┬────┬────┬────┐            │
│ │Alg │ E1 │ E2 │ E3 │ E4 │Rev │GEQ │Ctrl│            │
│ └────┴────┴────┴────┴────┴────┴────┴────┘            │
└─────────────────────────────────────────────────────┘
```
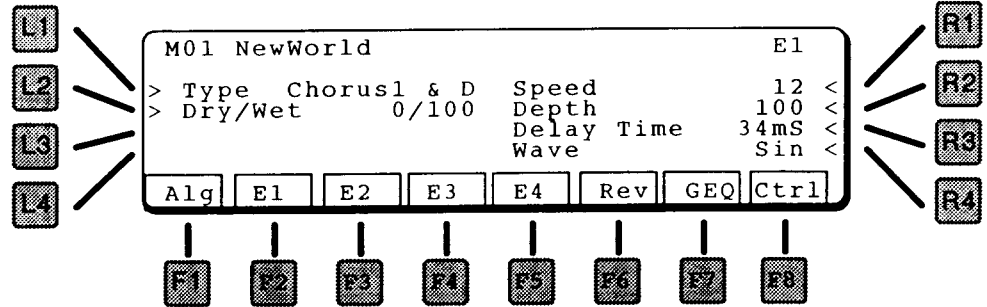
LI TYPE
Selects the type of effect.

L2 DRY/WET
Controls the ratio between the original (dry) and the tremolo sound (wet).

RI SPEED
Adjusts the tremolo speed.

R2 DEPTH
Controls how deep the tremolo is.

R3 PREDELAY TIME
Adds a delay (up to 100mS) before the tremolo starts.

R4 WAVE
Selects the LFO waveform used to control the tremolo. The choices are SINe or TRIangle.

TREMOLO & DELAY
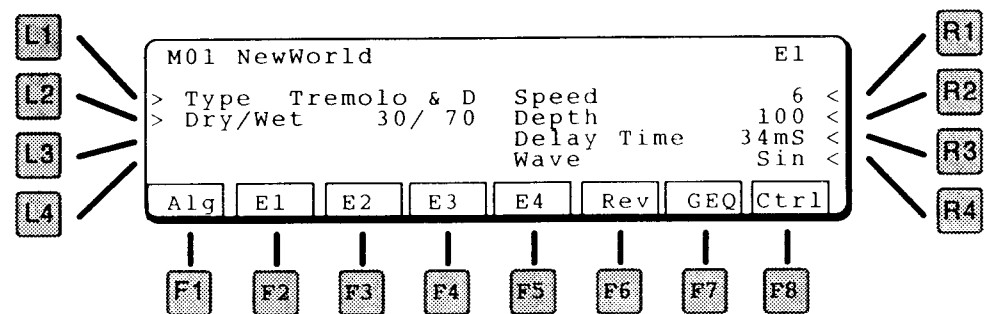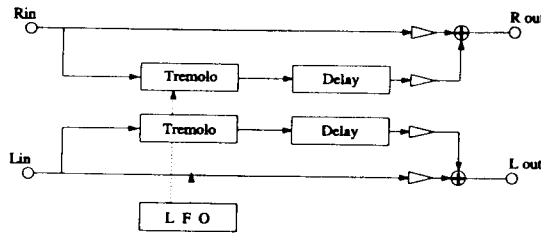
```
┌─────────────────────────────────────────────────────┐
│ M01 NewWorld                              E1         │
│                                                       │
│ > Type    Tremolo & D   Speed              6  <       │
│ > Dry/Wet      30/ 70   Depth            100  <       │
│                         Delay  Time      34mS <       │
│                         Wave             Sin  <       │
│ ┌────┬────┬────┬────┬────┬────┬────┬────┐            │
│ │Alg │ E1 │ E2 │ E3 │ E4 │Rev │GEQ │Ctrl│            │
│ └────┴────┴────┴────┴────┴────┴────┴────┘            │
└─────────────────────────────────────────────────────┘
```

LI TYPE
Selects the type of effect.

L2 DRY/WET
Controls the ratio between the original (dry) and the tremolo sound (wet).

RI SPEED
Adjusts the tremolo speed.

R2 DEPTH
Controls how deep the tremolo is.

R3 DELAY TIME
Adds a repeating delay of the tremolo sound (up to 200mS).

R4 WAVE
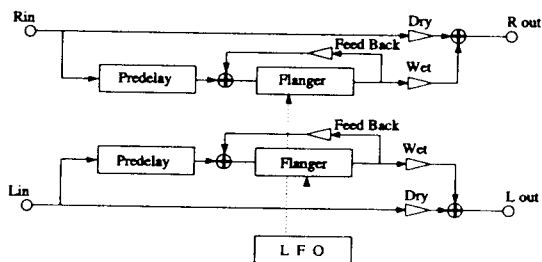Selects the LFO waveform used to control the tremolo. The choices are SINe or TRIangle.

PHASER I
PHASER 2

The phaser creates a phase change in the sound, adding motion to the sound. Good for any sustain sounds, such as strings and organ, as well as for electric pianos and other vintage guitar sounds.

Phaser 1 is a true stereo in / stereo out phase shifter – the left and right channels are independent.

Phaser 2 is a mono in / stereo out phase shifter – the left and right channels are summed together before go into to a stereo phase shifter.
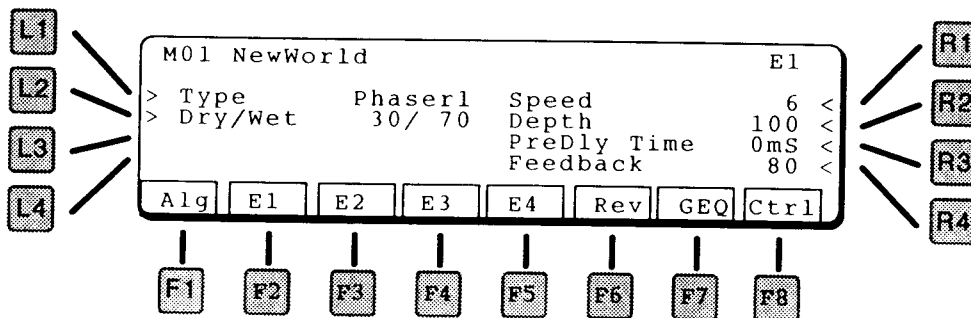
L1 TYPE
Selects the type of effect.
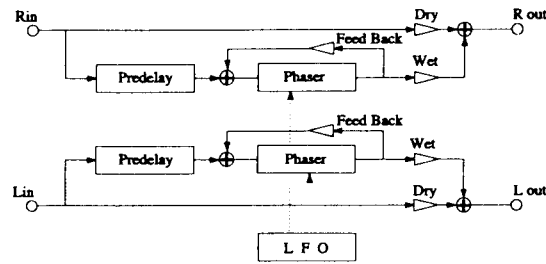
L2 DRY/WET
Controls the ratio between the original (dry) and the phaser sound (wet).

R1 SPEED
Adjusts the phaser speed.

R2 DEPTH
Controls how wide the phasing is.

R3 PREDELAY TIME
Adds a delay (up to 100mS) before the phasing starts.

R4 FEEDBACK
Feeds the sound back into itself, creating a longer sustained sound.

PHASER 1 & DELAY
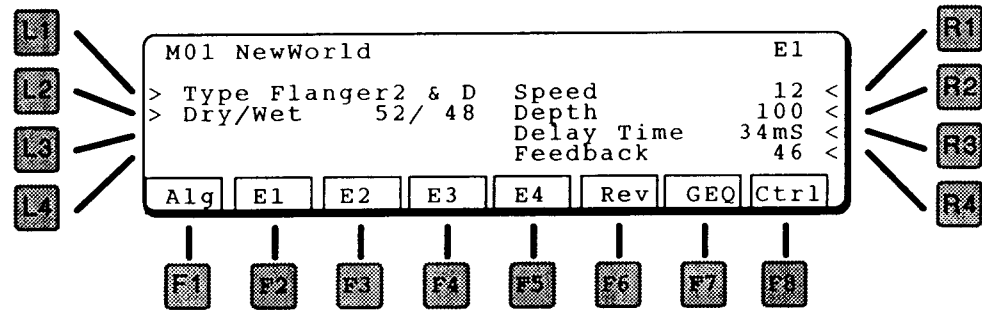# PHASER 2 & DELAY
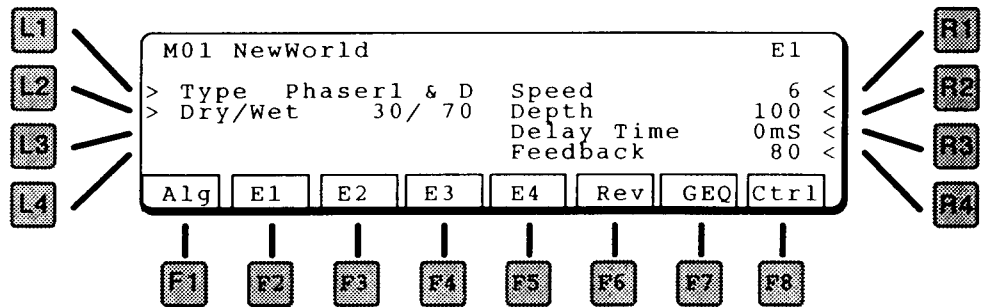
L1 TYPE
Selects the type of effect.
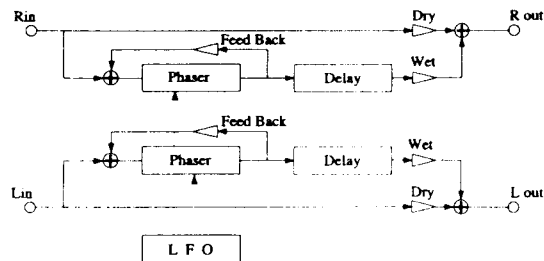
L2 DRY/WET
Controls the ratio between the original (dry) and the phaser sound (wet).

R1   SPEED
Adjusts the phaser speed.

R2   DEPTH
Controls how wide the phasing is.

R3   DELAY TIME
Adds a repeating delay of the phaser sound (up to 200mS).

R4   FEEDBACK
Feeds the sound back into itself, creating a longer sustained sound.

ROTARY

This offers a two speed phasing effect, designed to simulate the slow and fast switching of an organ rotary speaker.
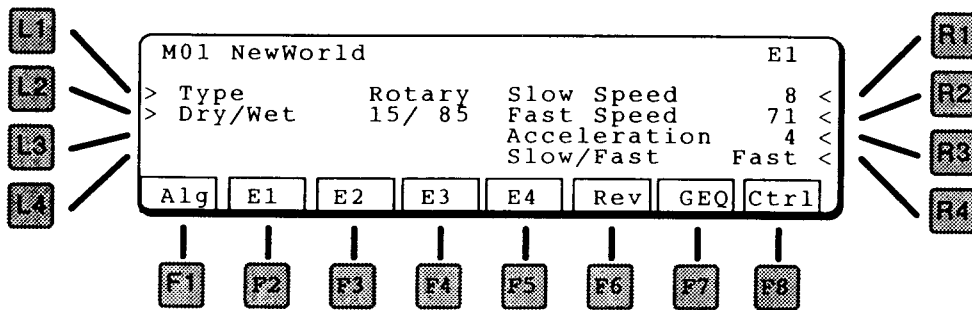

```
M01  NewWorld                                    E1
> Type            Rotary    Slow Speed        8  <
> Dry/Wet         15/ 85    Fast Speed       71  <
                            Acceleration      4  <
                            Slow/Fast      Fast  <
 Alg | E1 | E2 | E3 | E4 | Rev | GEQ | Ctrl
```

L1   TYPE
Selects the type of effect.
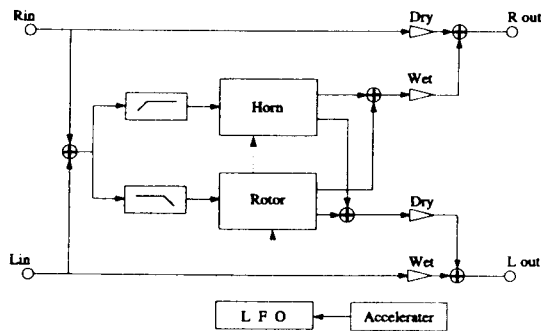
L2   DRY/WET
Controls the ratio between the original (dry) and the rotary sound (wet).

R1   SLOW SPEED
Adjusts the slow rotary speed.

R2   FAST SPEED
Adjusts the fast rotary speed.

R3   ACCELERATION
Controls the time it takes to switch from slow to fast or fast to slow.

R4 SLOW/FAST SWITCH
Changes between slow and fast. When this parameter is changed, the rotary changes to the other speed at a rate determined by the Acceleration parameter. You can control this parameter using the Effect Controller, page 63.

AUTO WAH

The Auto Wah sweeps the filter up and down on note attack, simulating a wah wah pedal.
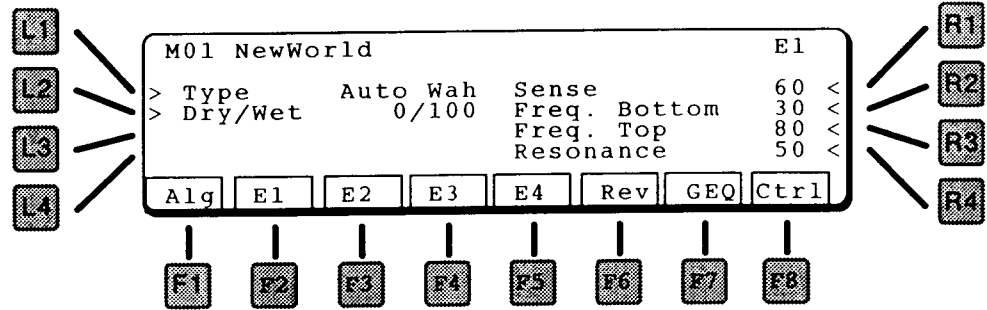

```
M01 NewWorld                             E1

> Type        Auto Wah    Sense           60 <
> Dry/Wet         0/100   Freq. Bottom    30 <
                          Freq. Top       80 <
                          Resonance       50 <

  Alg   E1    E2    E3    E4    Rev   GEQ  Ctrl
```

LI TYPE
Selects the type of effect.
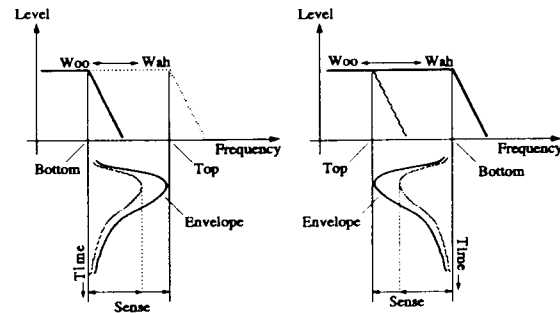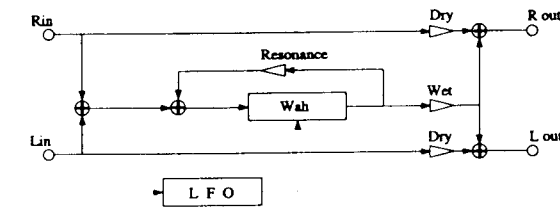
L2 DRY/WET
Controls the ratio between the original (dry) and the wah sound (wet).

RI SENSE
Adjusts the sensitivity of the wah effect to the key velocity. The harder the note is played, the higher the wah will sweep.

R2 FREQUENCY BOTTOM
Sets the starting and ending filter point.

R3 FREQUENCY TOP
Sets the peak point of the filter sweep.

R4 RESONANCE
Adjusts the filter resonance, for more of a pronounced "wah" effect.

BANDPASS

The Bandpass effect filters out sound above and below the filter point. This can be used to create "telephone" sound, for example, or music playing out of a small radio.
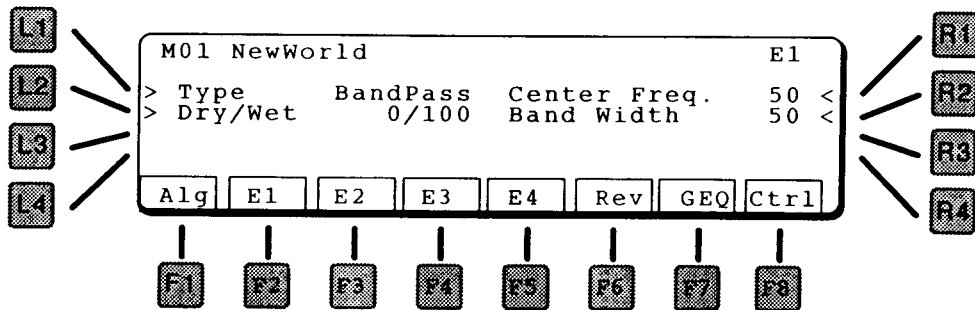
```
M01 NewWorld                              E1
> Type        BandPass   Center Freq.    50 <
> Dry/Wet       0/100    Band Width      50 <

  Alg   E1    E2    E3    E4    Rev   GEQ   Ctrl
```

LI   TYPE
Selects the type of effect.
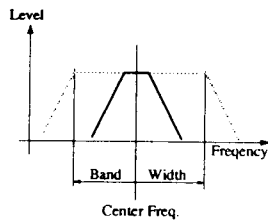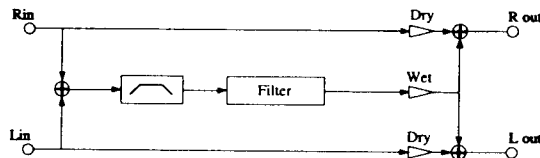
L2   DRY/WET
Controls the ratio between the original (dry) and the filtered sound (wet).

RI   CENTER FREQUENCY
Adjusts the center point for the bandpass filter.

R2   BAND WIDTH
Adjusts how wide the filtering will be on either side of the Center Frequency.

EXCITER

The Exciter emphasizes high frequencies to make a sound more easily discernible in a mix. The exciter uses to distortion to achieve its emphasis.
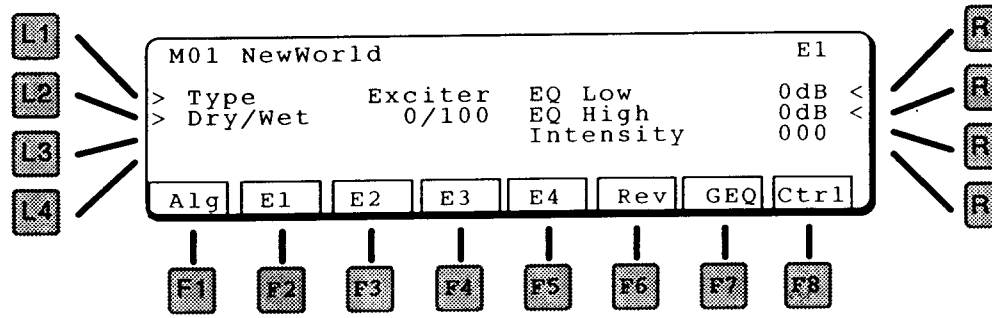

```
M01  NewWorld                                    E1
> Type          Exciter     EQ Low          0dB  <
> Dry/Wet        0/100       EQ High         0dB  <
                             Intensity       000

   Alg   E1    E2    E3    E4    Rev   GEQ  Ctrl
```

LI TYPE
Selects the type of effect.
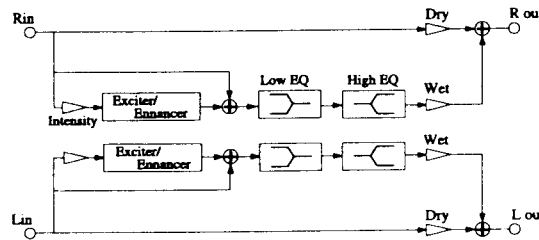
L2 DRY/WET
Controls the ratio between the original (dry) and the excited sound (wet).

RI EQ LOW
Adjust frequencies below the exciter point.

R2 EQ HIGH
Adjust frequencies above the exciter point.

R3 INTENSITY
Adjusts the amount of exciter effect.

ENHANCER

The Enhancer emphasizes high frequencies to make a sound more easily discernible in a mix. The Enhancer uses to phase shift and filtering to achieve its emphasis.
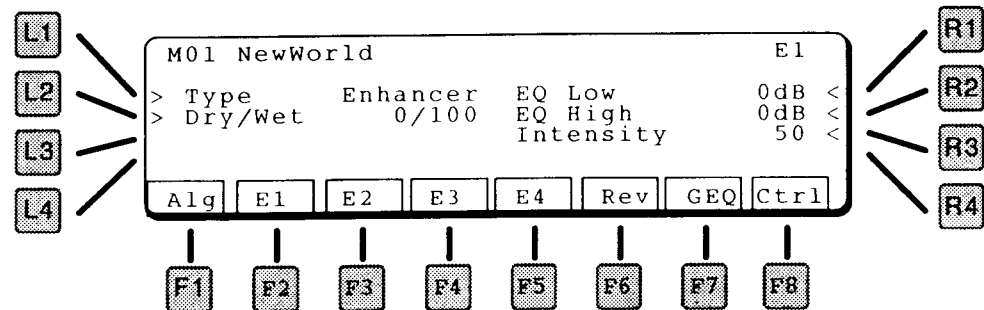

```
M01  NewWorld                                    E1
> Type          Enhancer    EQ Low          0dB  <
> Dry/Wet        0/100       EQ High         0dB  <
                             Intensity        50  <

   Alg   E1    E2    E3    E4    Rev   GEQ  Ctrl
```

LI TYPE

Selects the type of effect.
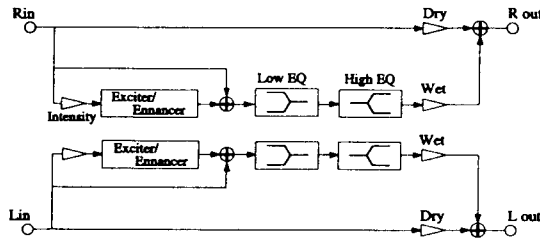
L2 DRY/WET

Controls the ratio between the original (dry) and the enhanced sound (wet).

RI EQ LOW

Adjust frequencies below the enhanced point.

R2 EQ HIGH

Adjust frequencies above the enhanced point.

R3 INTENSITY

Adjusts the amount of enhancement.

OVERDRIVE

The overdrive effect adds distortion and sustain for electric guitar "fuzz" type sounds. It is a softer type of distortion than the Distortion effect, below.


```
M01 NewWorld                         E1
> Type        Overdrive    EQ Low       0dB <
> Dry/Wet        0/100     EQ High       0dB <
                           Output Level   50 <
                           Drive          50 <
  Alg | E1 | E2 | E3 | E4 | Rev | GEQ | Ctrl
```

LI TYPE

Selects the type of effect.

L2 DRY/WET

Controls the ratio between the original (dry) and the distorted sound (wet).

RI EQ LOW

Adjusts the low frequencies of the overdrive effect.

R2 EQ HIGH

Adjusts the high frequencies of the overdrive effect.

R3   OUTPUT LEVEL
Adjusts the level of the overdrive effect.

R4   DRIVE
Adjusts the amount of distortion.

DISTORTION

The distortion effect adds a harder distortion and sustain for electric guitar "fuzz" type sounds.
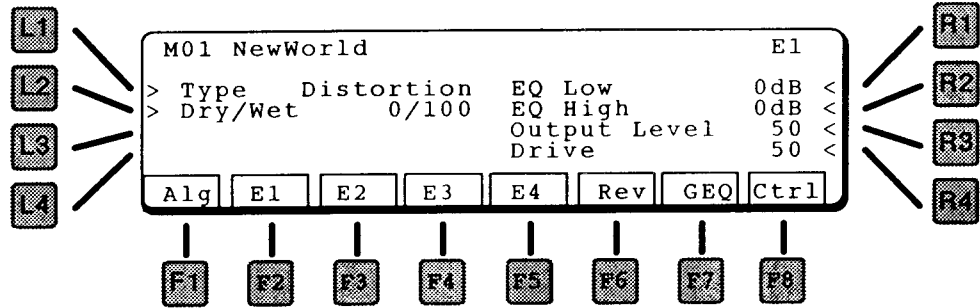
```
┌─────────────────────────────────────────────────┐
│ M01 NewWorld                                 E1  │
│                                                  │
│ > Type      Distortion    EQ Low          0dB  < │
│ > Dry/Wet        0/100     EQ High         0dB  < │
│                           Output Level     50  < │
│                           Drive            50  < │
│ ┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐┌───┐┌────┐  │
│ │Alg ││ E1 ││ E2 ││ E3 ││ E4 ││Rev ││GEQ││Ctrl│  │
│ └────┘└────┘└────┘└────┘└────┘└────┘└───┘└────┘  │
└─────────────────────────────────────────────────┘
```

L1   TYPE
Selects the type of effect.
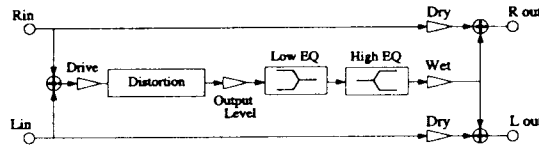
L2   DRY/WET
Controls the ratio between the original (dry) and the distorted sound (wet).

R1   EQ LOW
Adjusts the low frequencies of the distortion effect.

R2   EQ HIGH
Adjusts the high frequencies of the distortion effect.

R3   OUTPUT LEVEL
Adjusts the level of the distortion effect.

R4   DRIVE
Adjusts the amount of distortion.

OVERDRIVE & DELAY

Overdrive & Delay adds a slap echo delay to the overdrive sound. The result is an even longer sustained distortion sound.

```
  M01 NewWorld                                    E1
> Type        Over. & D   EQ Low          0dB  <
> Dry/Wet         0/100   EQ High         0dB  <
                          Delay Time      0mS  <
                          Drive            50  <

  [Alg][ E1 ][ E2 ][ E3 ][ E4 ][ Rev ][GEQ][Ctrl]
```

LI   TYPE
Selects the type of effect.

L2   DRY/WET
Controls the ratio between the original (dry) and the distorted sound (wet).

RI   EQ LOW
Adjusts the low frequencies of the overdrive effect.

R2   EQ HIGH
Adjusts the high frequencies of the overdrive effect.

R3   DELAY TIME
Adjusts the time of the delay (up to 200mS).

R4   DRIVE
Adjusts the amount of distortion.

DISTORTION & DELAY


```
┌──────────────────────────────────────────────┐
│  M01  NewWorld                          E1     │
│                                                │
│ > Type        Dist. & D   EQ Low       0dB  <  │
│ > Dry/Wet          0/100  EQ High      0dB  <  │
│                           Delay Time   0mS  <  │
│                           Drive         50  <  │
│ ┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐│
│ │Alg ││ E1 ││ E2 ││ E3 ││ E4 ││Rev ││GEQ ││Ctrl││
│ └────┘└────┘└────┘└────┘└────┘└────┘└────┘└────┘│
└──────────────────────────────────────────────┘
```

LI TYPE
Selects the type of effect.

L2 DRY/WET
Controls the ratio between the original (dry) and the distorted sound (wet).

RI EQ LOW
Adjusts the low frequencies of the overdrive effect.

R2 EQ HIGH
Adjusts the high frequencies of the overdrive effect.

R3 DELAY TIME
Adjusts the time of the delay (up to 200mS).

R4 DRIVE
Adjusts the amount of distortion.

REVERB TYPES

$\dashv$ Rev $\vdash$

The Reverb block represents reverberation effects. Any of eleven different reverb types can be assigned, which include a variety of rooms, halls, and plates. The available controls vary from one effect to another.

As can be seen from the block diagram, there are two inputs to the reverb section. Each reverb screen has a pair of Wet/Dry parameters, one for each input. These two *reverb sends* allow you to adjust the reverb balance for each input independently.

HALL 1
HALL 2
HALL 3

```
 A001  Runner                               Reverb
> Type           Hall1    Rev. Time        2.0S  <
> Dry/Wet1      89/ 11    PreDly Time     45mS  <
> Dry/Wet2      89/ 11    Hi Freq. Damp    40  <

 Alg   E1    E2    E3    E4    Rev   GEQ  Ctrl
```
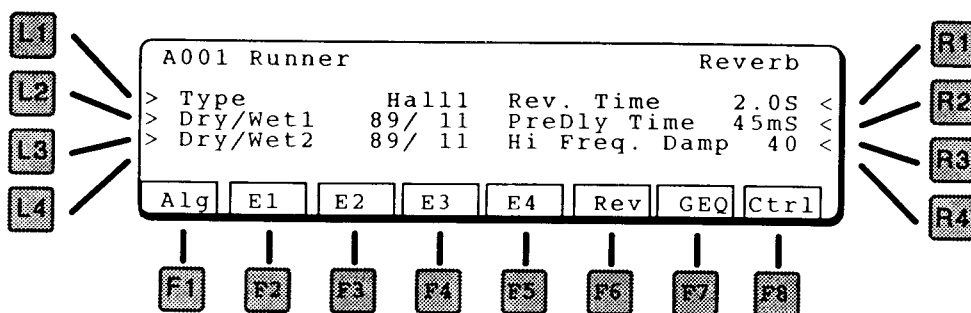
L1 TYPE

Selects the type of effect.

HALL 1
Standard Hall

HALL 2
Small Hall

HALL 3
Bright Hall
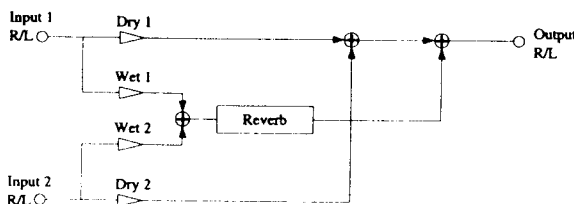
L2 DRY/WET 1

Controls the ratio between the original sound (dry) and the reverberated sound (wet) for the *top input* in the algorithm.

L3 DRY/WET 2

Controls the ratio between the original sound (dry) and the effected sound (wet) for the *bottom input* in the algorithm.

R1 REVERB TIME

Total reverberation time, in seconds.

R2 PREDELAY TIME

The amount of delay time before the effect.

R3 HIGH FREQUENCY DAMPING

In most natural acoustic spaces, high frequencies are absorbed faster than low frequencies. High Frequency Damping simulates this phenomenon by causing the high frequencies to die out faster. The more damping, the faster they die out – and sounds like there is more carpet or drapes in the room. Concrete room? Set the damping to 1.

ROOM 1
ROOM 2
ROOM 3


```
 A001  Runner                        Reverb
> Type          Room1   Rev. Time      2.0S  <
> Dry/Wet1      89/ 11  PreDly Time    45mS  <
> Dry/Wet2      89/ 11  Hi Freq. Damp    40  <

  Alg   E1    E2    E3    E4    Rev   GEQ  Ctrl
```
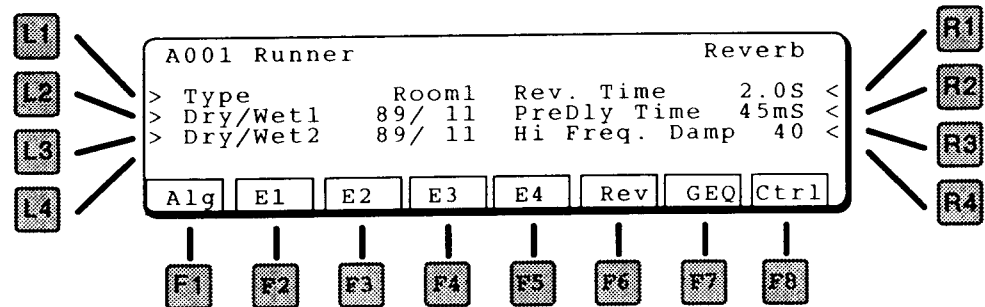
L1 TYPE

Selects the type of effect.

ROOM 1
Standard Room

ROOM 2
Large Room

ROOM 3
Bright Room
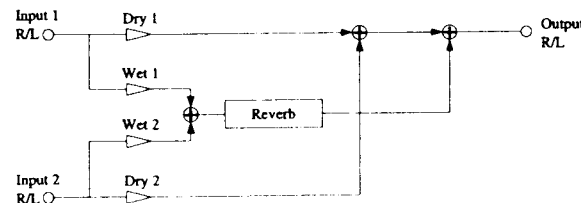
L2 DRY/WET 1

Controls the ratio between the original sound (dry) and the reverberated sound (wet) for the *top input* in the algorithm.

L3   DRY/WET 2
Controls the ratio between the original sound (dry) and the effected sound
(wet) for the *bottom input* in the algorithm.

R1   REVERB TIME
Total reverberation time, in seconds.

R2   PREDELAY TIME
The amount of delay time before the effect.

R3   HIGH FREQUENCY DAMPING
In most natural acoustic spaces, high frequencies are absorbed faster than low
frequencies. High Frequency Damping simulates this phenomenon by causing
the high frequencies to die out faster.

PLATE 1
PLATE 2
PLATE 3


```
A001  Runner                          Reverb
> Type            Plate1   Rev.  Time        2.0S  <
> Dry/Wet1        89/ 11   PreDly Time      45mS   <
> Dry/Wet2        89/ 11   Hi Freq.  Damp    40    <
  Alg   E1    E2    E3    E4    Rev  GEQ  Ctrl
```
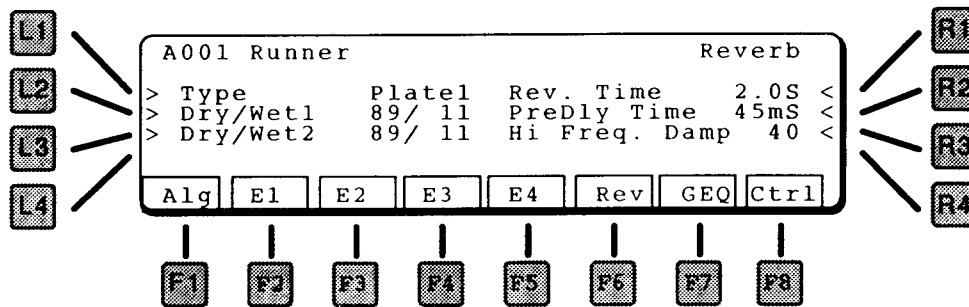
L1   TYPE
Selects the type of effect.

PLATE 1
Large Plate

PLATE 2
Small Plate

PLATE 3
Mellow Plate
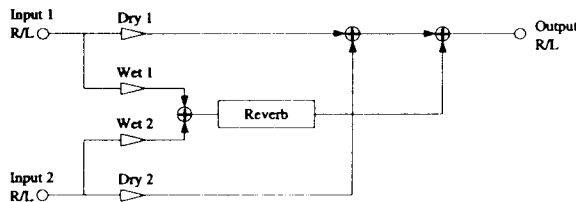
L2   DRY/WET 1
Controls the ratio between the original sound (dry) and the reverberated
sound (wet) for the *top input* in the algorithm.

L3   DRY/WET 2
Controls the ratio between the original sound (dry) and the effected sound
(wet) for the *bottom input* in the algorithm.

R I   REVERB TIME
Total reverberation time, in seconds.

R2   PREDELAY TIME
The amount of delay time before the effect.

R3   HIGH FREQUENCY DAMPING
In most natural acoustic spaces, high frequencies are absorbed faster than low frequencies. High Frequency Damping simulates this phenomenon by causing the high frequencies to die out faster.

REVERSE

Instead of decaying as natural reverb does, reverse reverb builds up as shown in the diagram below.
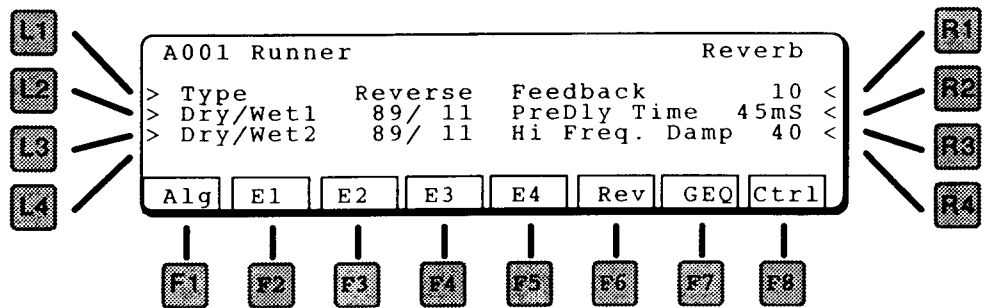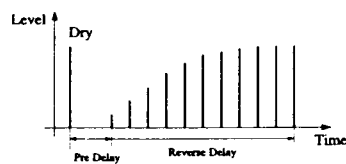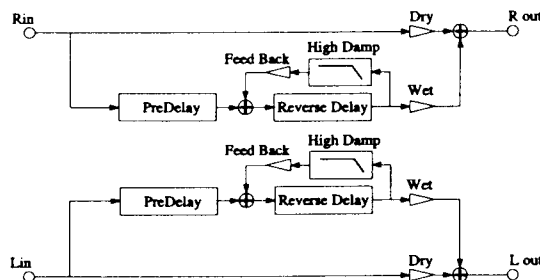

```
A001  Runner                              Reverb
> Type           Reverse    Feedback           10  <
> Dry/Wet1        89/ 11    PreDly  Time    45mS  <
> Dry/Wet2        89/ 11    Hi Freq.  Damp    40  <

  Alg   E1    E2    E3    E4    Rev   GEQ  Ctrl
```

L I   TYPE
Selects the type of effect.

L2   DRY/WET I
Controls the ratio between the original sound (dry) and the reverberated sound (wet) for the *top input* in the algorithm.

L3   DRY/WET 2
Controls the ratio between the original sound (dry) and the effected sound (wet) for the *bottom input* in the algorithm.

R I   FEEDBACK
Amount of delay looped back into the input. This creates a repeating delay.

R2 PREDELAY TIME
The amount of delay time before the effect.

R3 HIGH FREQUENCY DAMPING
Attenuates high frequencies from each repeat.

LONG DELAY
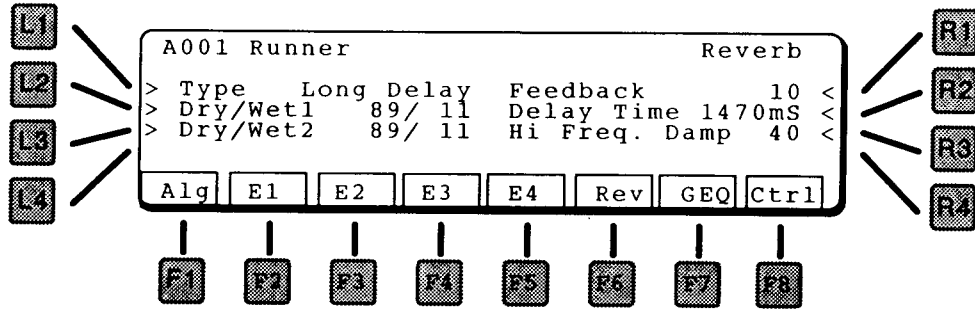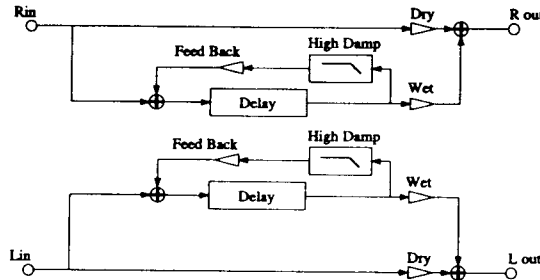
```
A001  Runner                         Reverb
> Type      Long Delay   Feedback           10  <
> Dry/Wet1      89/ 11   Delay Time  1470mS  <
> Dry/Wet2      89/ 11   Hi Freq. Damp      40  <

  Alg   E1    E2    E3    E4    Rev   GEQ  Ctrl
```

LI TYPE
Selects the type of effect.

L2 DRY/WET I
Controls the ratio between the original sound (dry) and the delayed sound (wet) for the *top input* in the algorithm.

L3 DRY/WET 2
Controls the ratio between the original sound (dry) and the delayed sound (wet) for the *bottom input* in the algorithm.

RI FEEDBACK
Amount of delay looped back into the input. This creates a repeating delay.

R2 DELAY TIME
Adjusts the delay time in 10mS increments, from 200 - 1470 mS. (1.47 seconds)

R3 HIGH FREQUENCY DAMPING
Attenuates high frequencies from each repeat.

MULTI SECTION

Multi Patches are *combinations* of up to four Single patches. They can be arranged in layers, key splits, velocity splits, multiple channels or any combination.

MULTI PLAY

Pressing the Multi key on the right side of the keyboard brings up the Multi Play window.

```
┌─────────────────────────────────────────────────────────┐
│  M07          Moonrise                                   │
├─────────────┬─────────────┬─────────────┬───────────────┤
│ Chimera     │ Runner      │ SynStrg1    │ GOOM          │
│  1          │  2          │  3          │  4            │
│    1ch  ⊤   │    1ch  ⊤   │    1ch  ⊤   │    1ch  ⊤     │
│    0    96  │  +12   97   │   0    104  │   0    120    │
│ Trns  Vol   │ Trns  Vol   │ Trns  Vol   │ Trns  Vol     │
└─────────────┴─────────────┴─────────────┴───────────────┘
```

The name of the Multi patch is displayed as well as the name, MIDI channel, transpose, and volume for each Single patch that it contains.

SELECTING MULTI PATCHES

To select one of the 64 Multi patches, use the Patch Select keys 0 through 9 on the right side of the panel. To change banks, use the Patch Select keys 00 through 06. The Bank menu screen appears as shown below.

```
┌─────────────────────────────────────────────────────────┐
│ Multi  Bank  Menu                                        │
├───────────────────────────┬─────────────────────────────┤
│  M10    Komradds          │  M15    E-Normus            │
│  M11    Addalogg          │  M16    Raunch              │
│  M12    Addalog2          │  M17    TakeOver            │
│  M13    CashFlow          │  M18    Frostbyt            │
│  M14    WINBRASS          │  M19    Wilder              │
└───────────────────────────┴─────────────────────────────┘
```

This screen lists the patches in the selected bank. To select one press the 0-9 key corresponding to the last digit of the patch number. A different patch will play, with the display as shown at the top of this section.

MODIFYING MULTI PATCHES

In Multi Play mode, the transposition and volume of each single patch can be adjusted. Press one of the F keys as described below, then use the value dial to change the setting.

```
┌─────────────────────────────────────────────────────────┐
│  M07          Moonrise                                   │
├─────────────┬─────────────┬─────────────┬───────────────┤
│ Chimera     │ Runner      │ SynStrg1    │ GOOM          │
│  1          │  2          │  3          │  4            │
│    1ch  ⊤   │    1ch  ⊤   │    1ch  ⊤   │    1ch  ⊤     │
│    0    96  │  +12   97   │   0    104  │   0    120    │
│ Trns  Vol   │ Trns  Vol   │ Trns  Vol   │ Trns  Vol     │
└─────────────┴─────────────┴─────────────┴───────────────┘
       │    │    │    │    │    │    │    │
      [F1] [F2] [F3] [F4] [F5] [F6] [F7] [F8]
```

FI TRANSPOSE SECTION I

This parameter adjusts the pitch of Section 1, in semitones. To raise a sound one octave, set the transpose to 12; to lower it one octave, set the transpose to -12.

F2   **VOLUME SECTION 1**
This parameter adjusts the volume of Section 1.

F3   **TRANSPOSE SECTION 2**
This parameter adjusts the pitch of Section 2, in semitones.

F4   **VOLUME SECTION 2**
This parameter adjusts the volume of Section 2.

F5   **TRANSPOSE SECTION 3**
This parameter adjusts the pitch of Section 3, in semitones.

F6   **VOLUME SECTION 3**
This parameter adjusts the volume of Section 3.

F7   **TRANSPOSE SECTION 4**
This parameter adjusts the pitch of Section 4, in semitones.

F8   **VOLUME SECTION 4**
This parameter adjusts the volume of Section 4.

USING THE MACRO CONTROLS
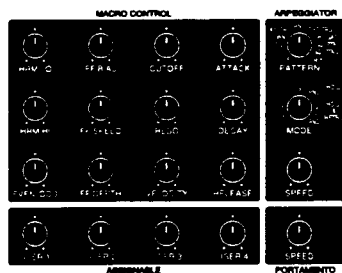
As in Single mode, the Macro and Assignable Controls on the left of the instrument are also available for instant edit in Multi mode. These controls are described on page 23. *They affect only the selected Single patch* (and others on the same MIDI channel), and add and subtract from the original values contained in each Single patch.

The arpeggiator settings also only affect the selected Single patch, and others on the same MIDI channel.

MULTI EDIT

Pressing EDIT brings up the Multi Edit Menu, below.

```
┌─────────────────────────────────────────┐
│  M21 K-Hit!                      Menu     │
│ > Common                                  │
│ > Section                                 │
│ > Effect                                  │
│                                           │
└─────────────────────────────────────────┘
```

LI   COMMON
This jumps to the Common edit, below.

L2   SECTION
This jumps to Section edit, discussed on the next page.

L3   EFFECT
Jumps to the Effect section, page 61.

NOTE:
Press EXIT to return to the Multi Edit Menu.

EXITING EDIT MODE

From the Multi Edit Menu, press EXIT. An alert message appears, asking if you want
to "Save and Quit". Press WRITE to save and quit to Multi Play mode, or F8 (Quit)
to return to Multi Play mode without saving. To continue _diting, press EDIT.

COMMON

Enter the name of the Multi patch from this page.

```
┌─────────────────────────────────────────┐
│  M21 K-Hit!                    Common     │
│ >  ->   Name  K-Hit!                      │
│ >  <-                                     │
│      !"#$%&'()*+,-./0123456789:;<=>?      │
│     @ABCDEFGHIJKLMNOPQRSTUVWXYZ[ ]^_      │
│     `abcdefghijklmnopqrstuvwxyz{ | }~     │
│                                  │More│   │
└─────────────────────────────────────────┘
```

LI and **L2** select which character is selected, the Value dial selects the desired letter
or number.

F8   MORE
This advances to the Volume page.

```
┌─────────────────────────────────────────────────────┐
│  M21 K-Hit!                        Common           │
│                                                      │
│ > Volume            ▓120▓                            │
│                                                      │
│                                                      │
│ ┌────┐                                               │
│ │Back│                                               │
└─┴────┴──────────────────────────────────────────────┘
```
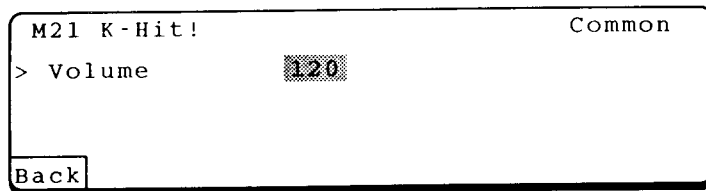
LI   VOLUME

This sets the master volume for the Multi patch.

FI   BACK

This returns to the Name page.

SECTION

The Section pages contain parameters to setup each of the four sections of a Multi Patch.
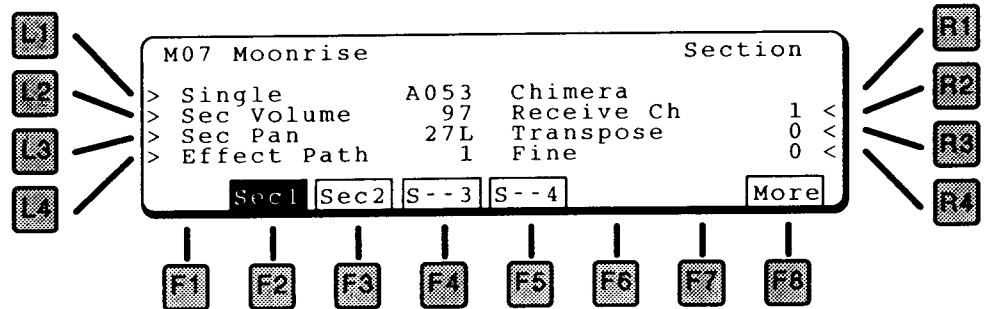
SELECTING A SECTION

The Section parameters are duplicated for each section in a Multi patch. To select a section, press the function key for the desired section (F2 – F5). In the display above, Section 1 is selected.

ENABLING / MUTING SECTIONS

Turning individual sections on and off is useful for editing. In addition, many Multi patches do not need all four sections enabled.

With the desired section selected (highlighted), press the section function key again (F2 – F5). The Section will turn on or off each time the function button is pressed.

In the display above, Sections 1 and 2 are enabled (**Sec I**), Sections 3 and 4 are muted (**S--4**). The "ec" changes to "--" when a section is muted.

SECTION MENU FUNCTIONS

LI   SINGLE PATCH

Selects the Single patch for this section.

L2   SECTION VOLUME

Adjusts the volume for the section.

L3 SECTION PAN
Adjusts the stereo pan for the section.

L4 EFFECT PATH
Routes this section to one of the four inputs of the effects section. For more on the Effects, please see page !!!.

Effect Path routes the Section to one of these Effect inputs
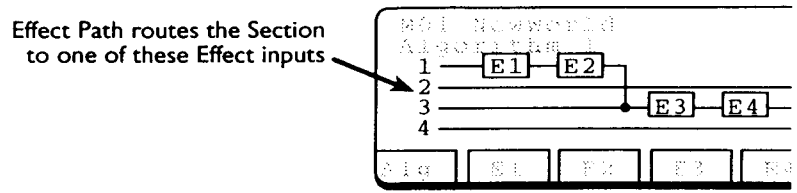
R2 SECTION CHANNEL
Sets the MIDI receive channel for the section. By setting each section to a different channel, the K5000S can play upto four independent parts when controlled from an external sequencer or computer.

R3 TRANSPOSE
Adjusts the transposition of the selected section, in semitone increments. A transposition of +12 is one octave higher.

R4 FINE
Adjusts the tuning of the section.

F8 MORE
Jumps to the Zone screen, below.

SECTION KEY AND VELOCITY ZONES
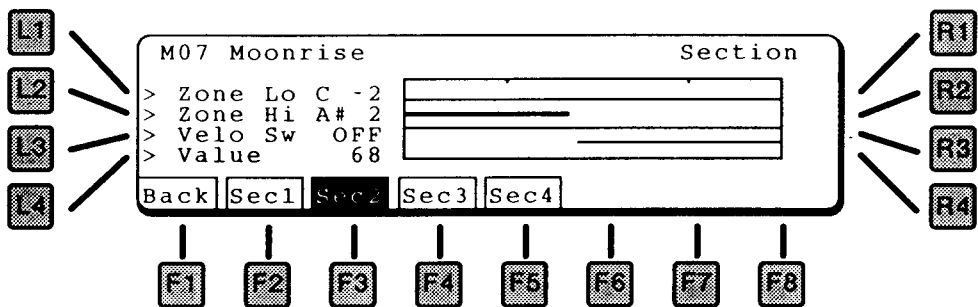
```
M07 Moonrise                    Section
> Zone  Lo  C -2
> Zone  Hi  A# 2
> Velo  Sw    OFF
> Value       68
Back  Sec1  Sec2  Sec3  Sec4
```

LI ZONE LO
Sets the lowest note that will be played. The keyboard graphic visually shows the range. The selected section is highlighted.

L2 ZONE HI
Sets the highest note that will be played.

RI VELOCITY SWITCH
Sets the velocity range. At Loud, only hard (loud) notes will sound. At Soft, only soft notes will sound. When set to OFF, the velocity switch is turned off and notes play at all velocity levels.

R2 VALUE
Sets the threshold between high and low velocity. This is the MIDI velocity number.

FI BACK
Press to return to the previous screen.

WRITE

After editing, save your Multi by pressing the WRITE button in the COMMON section of the front panel. The following screen appears.

```
 M07  Moonrise

> Write


```

LI WRITE

This saves your patch to the internal memory area.
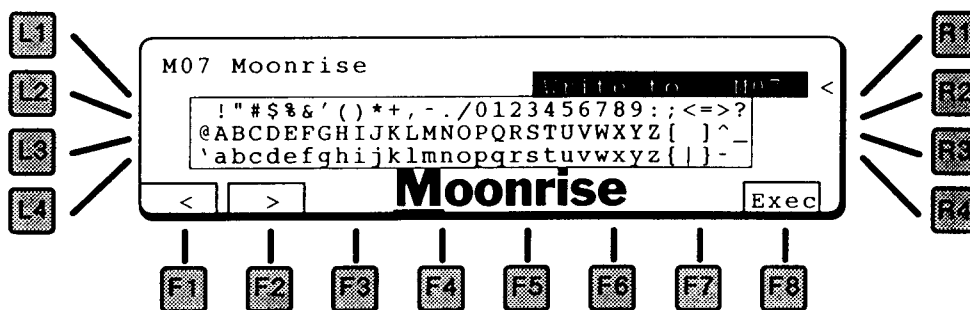
RI   WRITE LOCATION
Use the Value dial to select a location to save your patch.

F I/F2 CHARACTER
This names the patch. Use the F1 and F2 keys to select a character in the name (moves the cursor), and the Value dial to select a letter.

F8   EXECUTE
Stores the patch.

.

COMMON

![separator]

The Common area of the front panel, to the left of the LCD, contains controls for parameters that concern the entire instrument.

.

SYSTEM SECTION

The System pages offer preference settings, that control the general behavior of the K5000S.

The seven Function keys (F1 – F7) jump between the seven sections of the System parameters.

FI FSW
Goes to the Switch page.

F2 ARPEGGIATOR
Goes to the Arpeggiator page.

F3 RESET
Goes to the reset page.

F4 BACKUP
Goes to the Backup page.

F5 MIDI
Goes to the System MIDI page.

F6 SYSTEM
Goes back to the main System page, below.

F7 DUMP
Goes to the MIDI Data Dump page.

SYSTEM
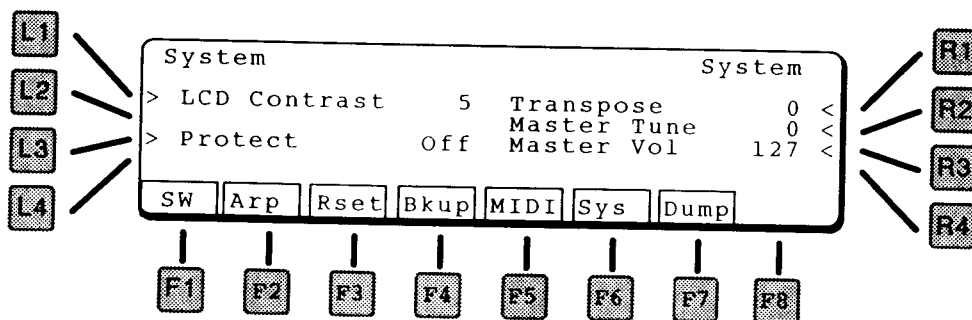
LI LCD CONTRAST
This adjusts the contrast of the LCD display. Adjust it so the display can be seen clearly.

L3 PROTECT
This turns on the memory protect for the internal program memory. When Protect is on, sound programs can not be saved to internal memory.

RI TRANSPOSE
Master Transpose for the instrument.

R2   MASTER TUNE
Master Tune for the instrument.

R3   MASTER VOLUME
This sets the MIDI master volume for the instrument, MIDI controller 7.

FSW (PROGRAMMABLE SWITCHES)

On this page, the functions of the programmable switches (under the disk drive) and programmable footswitch jacks (on the rear panel) can be set.
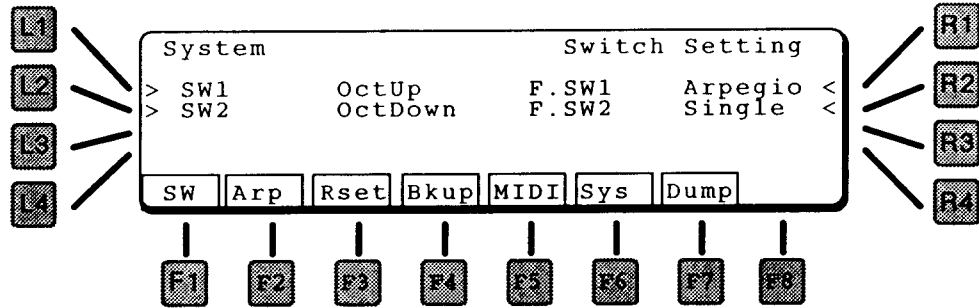
THE AVAILABLE SETTINGS ARE:

SINGLE
Set by Single Patch parameters, see page 27.

ARPEGGIO
Turns the arpeggiator on and off, same as the Arpeggiator button on the front panel.

OCTUP
Transposes the keyboard up an octave.

OCTDOWN
Transposes the keyboard down an octave.

LI   SWITCH I
Selects the function for Switch 1.

L2   SWITCH2
Selects the function for Switch 2.

RI   FOOTSWITCH I
Selects the function for Footswitch 1.

R2   FOOTSWITCH2
Selects the function for Footswitch 2.

ARPEGGIATOR

One of the unique features of the K5000S is its programmable Arpeggiator, which allows a sophisticated level of programming.

COMMON PARAMETERS

```
 ┌──────────────────────────────────────────────────────┐
 │ Arpeggiator              Common  Parameter            │
 │ > Note(UP-RND)♪ 48    RangeLO        C  -2  <         │
 │ > Gate          50%   RangeHI        C   3  <         │
 │ > Level        100%   Play  Mode  Altnate   <         │
 │       ON     INT                                      │
 │      │Velo││Clk│                          │Edit│      │
 └──────────────────────────────────────────────────────┘
```
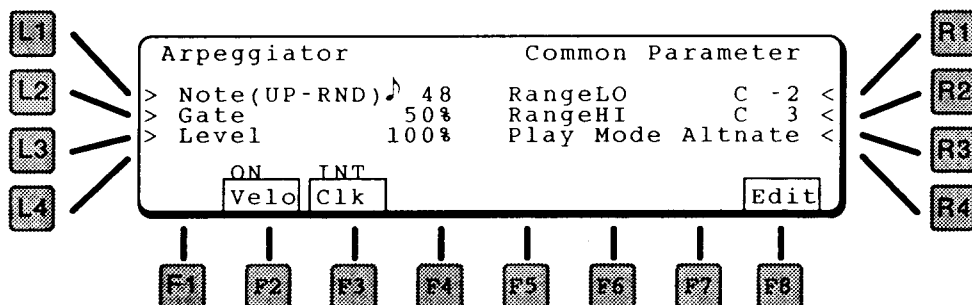
LI NOTE VALUE

This sets the note value for the arpeggiator when in Up, Down, Up/Down, Key Order, and Random modes – quarter, eighth, sixteenth notes, etc. The settings are based on a clock resolution of 96 pulses per quarter note. This results in the following possible settings:

♩	96	Quarter Note
♩₃	64	Quarter Note Triplet
♪	48	Eighth Note
♪₃	32	Eighth Note Triplet
♬	24	Sixteenth Note
♬₃	16	Sixteenth Note Triplet
♬	12	Thirty-second note

L2 GATE

This sets the duration of each note as a percentage of arpeggio time. At 100%, each note will be gated up to the start of the next note. At 50%, the gate duration will be half of the time to the next arpeggio note.

L3 LEVEL

This sets the level of each note as a percentage of the keyed velocity.

RI RANGE LO

Sets the low note of the arpeggiator range. For example, you can set the lowest two octaves for the arpeggiator, then play over the arpeggio with the rest of the keyboard.

R2 RANGE HI

Sets the high note of the arpeggiator range.

R3 PLAY MODE

The Sequence Pattern settings (SQ.PTN1, SQ.PTN2) have a programmed number of "arpeggio positions". This parameter determines what happens if there are fewer notes to arpeggiate than positions.

REST
The extra positions are filled with rests.

LAST
The last note repeats to fill the extra positions.

FIRST
The first note repeats to fill the extra positions.

ALTERNATE
The played notes are repeated in reverse order to fill the extra positions. If the repeated notes go back all the way to the beginning, more notes will be repeated again, this time from the beginning.

F2   VELOCITY
This turns on velocity sensitivity for the arpeggiator. If On each note will play according to key velocity. If Off all notes will play at the same velocity.

F3   CLOCK
This sets the arpeggiator clock source. If set to EXT, the arpeggiator will advance in time with an external sequencer or computer.

ARPEGGIATOR EDIT

In the next two pages you can program your own arpeggio patterns. You can adjust timing, level, and gate time, to create a rhythmic sequence pattern – you select notes by playing the keyboard.

There are eight user arpeggioator patterns – select one for playback from the Single Play screen using the Value dial,
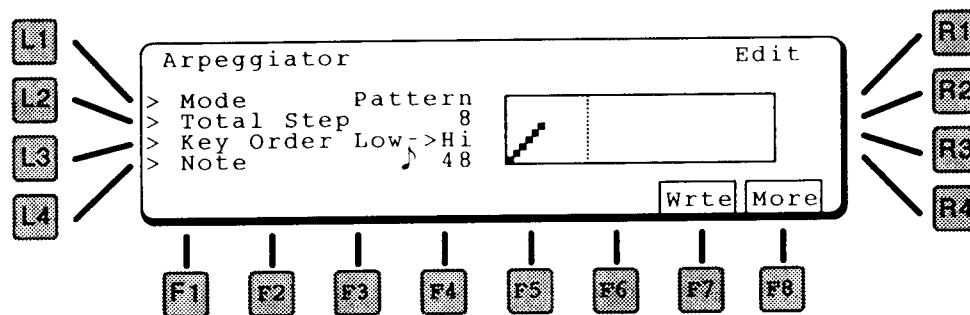
LI   MODE
There are three playback modes:

PATTERN
Notes play one at a time, with velocity controlled by the keyboard and note length (timing) controlled by the arpeggiator. You can program up to four part harmony on each step.

TRIGGER
All notes play together according to the programmed pattern. You can program velocity and timing.

GATER
You can program the volume level and length for each step, creating a rhythmic character to the chord.

L2   TOTAL STEP
This is the number of steps in the pattern. If fewer notes are played, the pattern will either insert rests or repeat notes according to the setting on the Edit Pattern page.

L3 **KEY ORDER**
KEY ON
Notes are arpeggiated in the order in which they are played on the keyboard.

LOW->HI
Notes are arpeggiated from low to high pitch.

L4 **NOTE**
This sets the note value for the arpeggiator when in Up, Down, and Random modes – quarter, eighth, sixteenth notes, etc. The settings are based on a clock resolution of 96 pulses per quarter note. This results in the following possible settings:

♩	96	Quarter Note
♩₃	64	Quarter Note Triplet
♪	48	Eighth Note
♪₃	32	Eighth Note Triplet
♪	24	Sixteenth Note
♪₃	16	Sixteenth Note Triplet
♪	12	Thirty-second note

F7 **WRITE**
Writes the arpeggio settings to memory. The following dialog box appears:

```
┌────────────────────────────────────┐
│ Arpeggiator              Write      │
│           Write to ▮▮▮▮▮            │
│                                     │
│                        ┌────┐┌────┐ │
│                        │Cncl││Exec│ │
└────────────────────────────────────┘
```
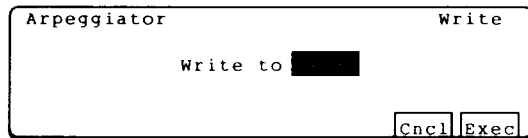
Choose one of the eight arpeggio memory locations using the Value dial. Press Exec to continue.

Are you sure? Press F8 to continue, F1 to cancel.

NOTE:
If you exit the arpeggiator without saving, you will be prompted to save the arpeggio settings.

```
┌────────────────────────────────────┐
│   ⚠    Save Arpeggio?               │
│                                     │
│ ┌──┐                        ┌───┐   │
│ │NO│                        │YES│   │
└─┴──┴────────────────────────┴───┴───┘
```

Press F1 to discard your changes, F8 to go to the Write screen above.

F8 **MORE**
Goes to the arpeggio pattern editor, below.

ARPEGGIO PATTERN EDIT

On this screen you can edit the arpeggio pattern itself.
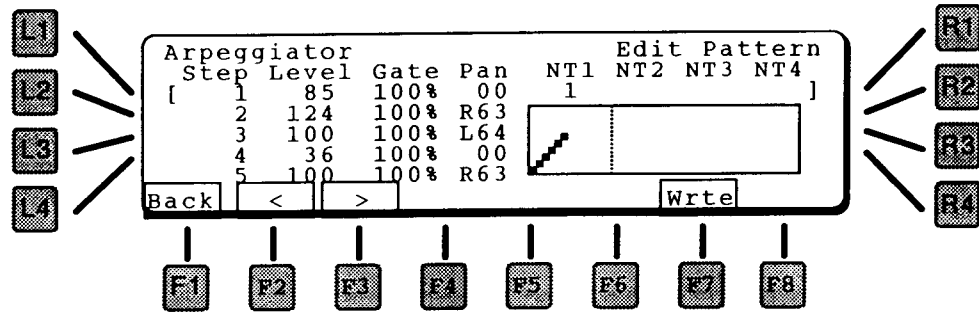
Use the arrow keys (F2 & F3) to navigate left to right in the parameter list.

STEP

This is the step number of the pattern, 1 to a maximum of 32. With Step highlighted, turn the value dial to navigate through the steps in the pattern.

DIFFERENTIATING NOTES AND STEPS

When you play a chord on the keyboard, each note is assigned a number – from bottom to top, or in the order played. These note numbers normally correspond exactly with the step numbers – the arpeggiated sequence, to give the typical ascending note arpeggiator effect.

However, the K5000S arpeggiator does not have to maintain this correspondence, as explained below. You can arrange the notes in any combination you want – which gives you the ability to preprogram a sequence pattern and then control it live from the keyboard.

LEVEL

The level of the note to be played on this step.

REST

If the Level is turned all the way down, REST appears and a rest is applied to this step.

REPEAT

If the Level is turned all the way up, REP appears and the arpeggio repeats from the start to this point, as many times as necessary up to the Total Step duration of the arpeggio.

NOTE:

Repeat cannot be select for the first step of the arpeggio.

GATE

This sets the duration of the note as a percentage of arpeggio time. At 100%, the note will be gated up to the start of the next note. At 50%, the gate duration will be half of the time to the next note.

PAN

This sets the panning of the selected note step. If the Pan is turned down all the way, "---" appears and no panning is applied.

NT1 ~ NT4 (NOTE 1 ~ NOTE 4)

These parameters control which note(s) play on each step.

Up to four notes can actually play on each step – this is where the note vs. step issue becomes important. Normally the NT1 parameter has the same value as the Step Number.

For example, if you wanted to maintain a continuous bass not underneath the rest of the arpeggio, you would set NT1 to 1 on *every* step, then set NT2 equal to the step number on each step. The result: a two voice arpeggio with one voice playing all the notes, the other playing only the lowest (or first) note.

F7 WRITE

Saves the arpeggio settings. There are eight user arpeggio memories. Choose the desired memory location using the Value dial, then press F8 to execute.
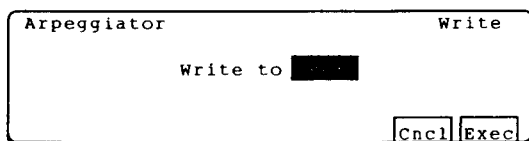
```
┌─────────────────────────────────────────┐
│ Arpeggiator                      Write   │
│                                          │
│              Write to ████              │
│                                          │
│                              ┌────┐┌────┐│
│                              │Cncl││Exec││
└──────────────────────────────┴────┘└────┘┘
```

Are you sure? Press F8 to continue, F1 to cancel.

NOTE:
If you exit the arpeggiator without saving, you will be prompted to save the arpeggio settings.

```
┌─────────────────────────────────────────┐
│                                          │
│      /!\    Save Arpeggio?               │
│                                          │
│ ┌────┐                          ┌────┐   │
│ │ NO │                          │YES │   │
└─┴────┴──────────────────────────┴────┴───┘
```

Press F1 to discard your changes, F8 to go to the Write screen above.

RESET

This function reloads all patches from the backup Flash memory. This would only be necessary to restore original patches after receiving a MIDI data dump or playing a MIDI sequence with recorded MIDI patch data.

BACKUP

This function saves all patches in memory to the backup Flash memory area. This is only necessary to save a MIDI data dump, since the patch dump data is written to the working RAM memory only.

```
┌──────────────────────────────────────────────────┐
│ System                                    M I D I │
│                                                   │
│ > Local              ON                           │
│ > Unit Ch             1                           │
│ > Pro Receive        SEC                          │
│                                                   │
│ ┌──┐┌───┐┌────┐┌────┐┌────┐┌───┐┌────┐┌────┐      │
│ │SW││Arp││Rset││Bkup││MIDI││Sys││Dump││More│      │
│ └──┘└───┘└────┘└────┘└────┘└───┘└────┘└────┘      │
└──────────────────────────────────────────────────┘
```
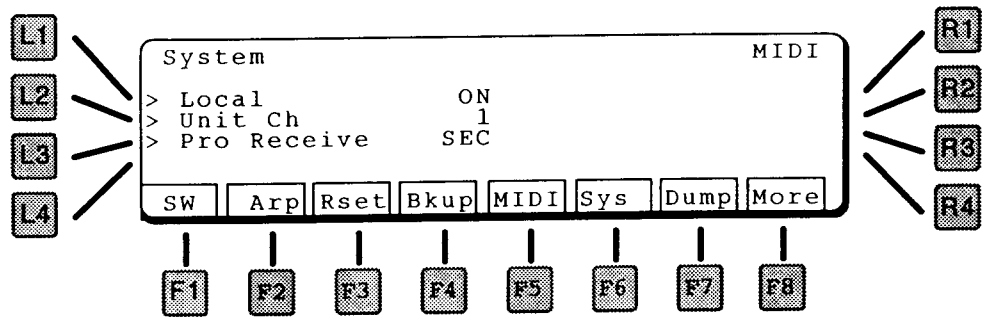
LI   LOCAL

Sets MIDI Local Control. If ON the keyboard and sequencer are attached to the sound generator. If off, the keyboard/sequencer and sound module are separated. Turning off local control is useful when an external MIDI sequencer is used.

L2   UNIT CHANNEL (SYSTEM CHANNEL)

This sets the basic MIDI channel for the unit. This is the channel that will be transmitted by the keyboard, and the channel on which Normal program changes will be received.

L3   PROGRAM RECEIVE

Sets the mode for receiving program changes.

NORMAL
A received program change message causes the instrument to change patches.

SECTION
Within a Multi patch, a received program change message changes only the Single patch assigned to that channel.

F8   MORE

Goes to the next page of parameters.

```
┌──────────────────────────────────────────────────┐
│ System                                    M I D I │
│      Transmit              Receive                │
│ > Program           ON     Program       ON  <    │
│ > Pressure          ON     Pressure      ON  <    │
│                            Exclusive     ON  <    │
│ ┌────┐┌───┐┌────┐┌────┐┌────┐┌───┐┌────┐          │
│ │Back││Arp││Rset││Bkup││MIDI││Sys││Dump│          │
│ └────┘└───┘└────┘└────┘└────┘└───┘└────┘          │
└──────────────────────────────────────────────────┘
```
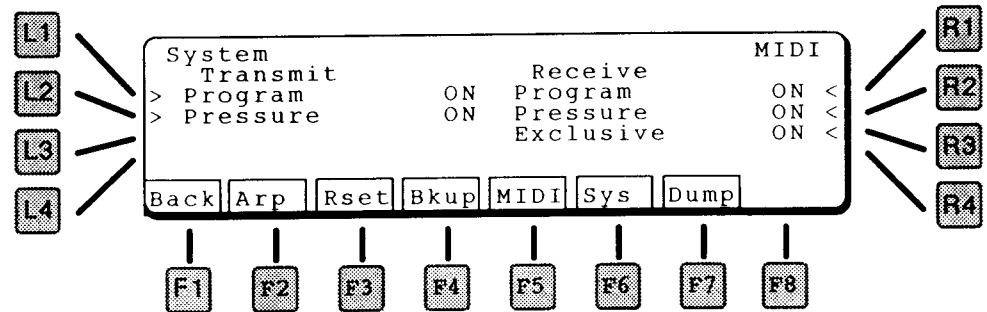
LI   TRANSMIT PROGRAM

If on, the K5000S will transmit program changes.

L2   TRANSMIT PRESSURE

If on, the K5000S will transmit aftertouch pressure.

RI   RECEIVE PROGRAM

If on, the K5000S will receive program changes.

R2   RECEIVE PRESSURE

If on, the K5000S will receive aftertouch pressure.

R3   RECEIVE EXCLUSIVE
If on, the K5000S will receive system exclusive messages.

DUMP

This page is used to initiate a MIDI System Exclusive file transfer. The program data is transmitted across MIDI.

```
┌─────────────────────────────────────────────────┐
│ System                                   Dump    │
│                                                  │
│ > Block        Single A                          │
│ > One/All          One                           │
│ > Patch No.        A128                           │
│ ┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐┌────┐ │
│ │ SW ││Arp ││Rset││Bkup││MIDI││Sys ││Dump││Exec│ │
│ └────┘└────┘└────┘└────┘└────┘└────┘└────┘└────┘ │
└─────────────────────────────────────────────────┘
```
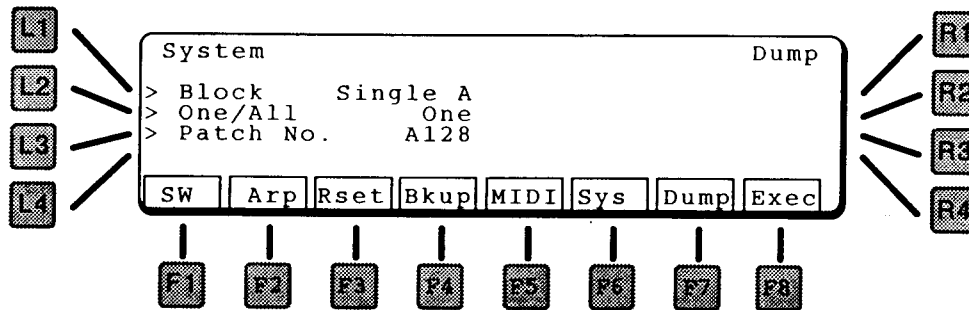
LI   BLOCK
Selects which sound block to transfer.

BLOCKS
SINGLE
A Single sound bank (A or D).

MULTI
Multi combination sound bank

L2   ONE/ALL
Selects a single program or all the programs in the selected block.

L3   PATCH NUMBER
If One is selected above, this parameter selects the individual patch to dump.

F8   EXECUTE
Initiates the data transfer. *Are You Sure?* Press YES (F8) to start, NO (F1) to cancel.

DISK SECTION

The Disk pages enable you to save your work on floppy disks. Whether to backup your patches, save a song for a studio date, load new sounds for another project, you'll find the K5000S's disk is your gateway to the outside world.

Pressing DISK on the front panel brings up the Disk Menu screen, below.

```
┌─────────────────────────────────────────────┐
│  Disk                              Menu       │
│                                               │
│ > Save                          Delete  <    │
│ > Load                          Format  <    │
│                                               │
│                                               │
└─────────────────────────────────────────────┘
```
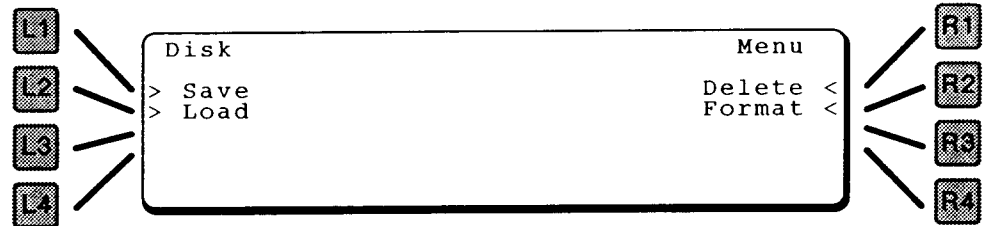
There are four options for saving, loading, and deleting files, as well as for formatting new diskettes.

LI SAVE

This section is for saving the various types of files in the K5000S to disk. Choose one of the options as described below.

```
┌─────────────────────────────────────────────┐
│  Disk Save                         Menu       │
│                                               │
│ > Single                      Arpeggio  <    │
│ > Multi                                       │
│                                               │
│                                               │
└─────────────────────────────────────────────┘
```
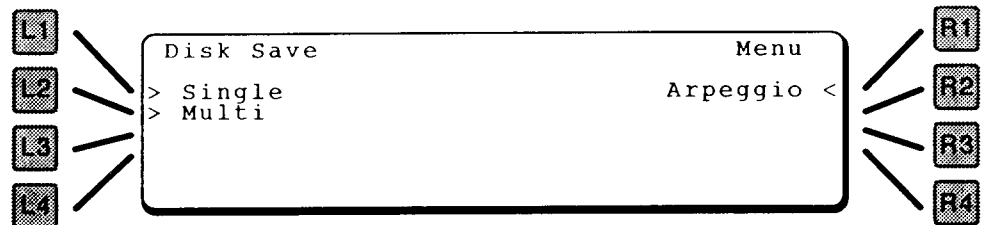
LI SAVE SINGLE

You can save individual Single patches or an entire bank to disk.

```
┌─────────────────────────────────────────────┐
│  Disk Save                       Single       │
│ > All/One      ONE   Single No.      A001 <  │
│   !"#$%&'()*+,-./0123456789:;<=>?            │
│   @ABCDEFGHIJKLMNOPQRSTUVWXYZ[ ]^_           │
│   `abcdefghijklmnopqrstuvwxyz{|}-            │
│   [ < ][ > ]     Runner       .KA1   [Exec]  │
└─────────────────────────────────────────────┘
```
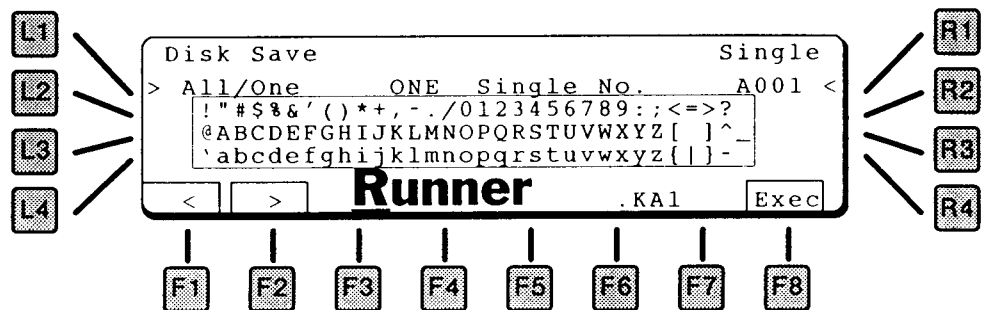
LI ALL/ONE
Choose ALL the patches in a bank, or just ONE.

The single bank selected before entering the Disk Section will be the only bank available.

R I   SINGLE NO.
If you want to save one patch to disk, select the patch number here.

F I/F2   CHARACTER
This names the file on the disk. Use the F1 and F2 keys to select a character in the name (moves the cursor), and the Value dial to select a letter.

F8   EXECUTE
Press Execute to save the file. It will be saved with the file extension shown after the name. See page 119 for a list of K5000S file types.

L2   SAVE MULTI
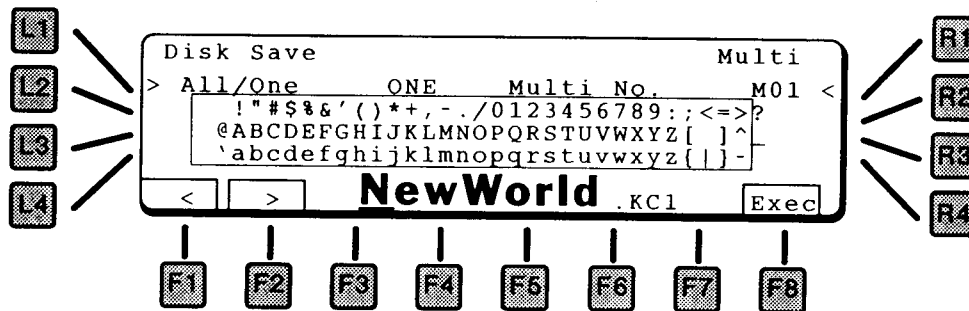
L I   ALL/ONE
Choose the entire MULTI bank, or just ONE Multi patch.

R I   MULTI NO.
If you want to save one patch to disk, select the patch number here.

F I/F2   CHARACTER
This names the file on the disk. Use the F1 and F2 keys to select a character in the name (moves the cursor), and the Value dial to select a letter.

F8   EXECUTE
Press Execute to save the file. It will be saved with the file extension shown after the name. See page 119 for a list of K5000S file types.

L3 SAVE ARPEGGIO PATTERN
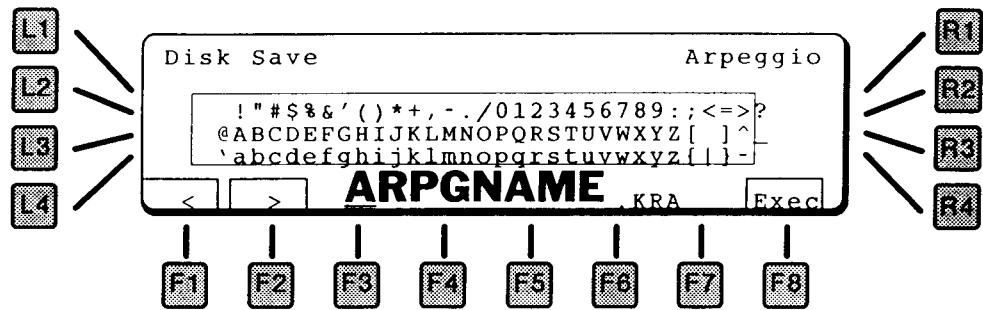
```
Disk Save                              Arpeggio

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

F1/F2   CHARACTER
This names the file on the disk. Use the F1 and F2 keys to select a character in the name (moves the cursor), and the Value dial to select a letter.

F8   EXECUTE
Press Execute to save the file. It will be saved with the file extension shown after the name. See page 119 for a list of K5000S file types.

L2 LOAD

This section is for loading the various types of files into the K5000S from disk. Choose one of the options as described below.

```
Disk Load                                 Menu

> Single                             Arpeggio <
> Multi
```
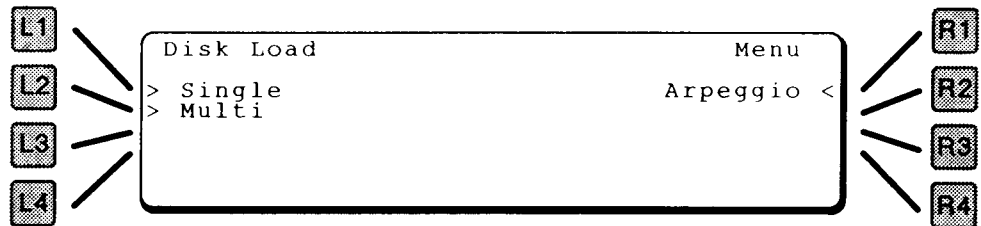
This shows the Load Single procedure. The others are similar.

```
Disk Load                               Single

> All/One    ONE      Single No.      A001 <
  Runner        Fusiac
  Other files on the disk...

  File            Runner   .KA1         Exec
```
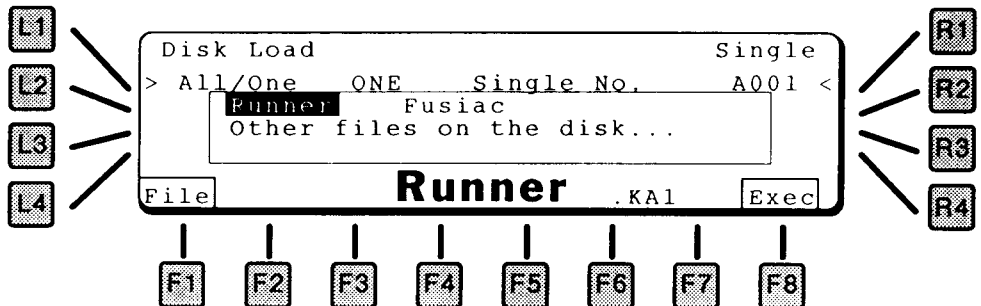
L1   ALL/ONE
Choose a patch bank file (.KAA) or a file with only ONE patch (.KA1).

R1   SINGLE NO.
This is the destination location for the file.

F I   FILE
This scrolls through the files on the disk that match the selected file type. Use the Value dial to select the desired file.

F8   EXECUTE
Press Execute to load the file.

MAC / WIN 95 USERS NOTE:
All file names must be in standard DOS 8+3 letter format or it will not be recognized.

R I   DELETE

```
 ┌─────────────────────────────────────────┐
 │ Disk Delete                   Menu       │
 │ > Single                  Arpeggio  <    │
 │ > Multi                                  │
 │                                          │
 │                                          │
 └─────────────────────────────────────────┘
```

This shows the Delete Single procedure. The others are similar.

```
 ┌─────────────────────────────────────────┐
 │ Disk Delete                   Single     │
 │ > All/One   ONE    Single Bank      A <  │
 │         Runner      Fusiac               │
 │         Other files on the disk...       │
 │  File       Runner    .KA1      Exec     │
 └─────────────────────────────────────────┘
```

L I   ALL/ONE
Choose a patch bank file (.KAA) or a file with only ONE patch (.KA1).

R I   SINGLE BANK
Select the type of Single bank to delete: A or D.

F I   FILE
This scrolls through the files on the disk that match the selected file type. Use the Value dial to select the desired file.

F8   EXECUTE
Press Execute to delete the file from the disk.

R2 FORMAT

```
┌─────────────────────────────────────────┐
│  Disk Format                            │
│ >  Format          1.4MB                │
│                                         │
│      Formatting Will Destroy All Data   │
│               On The Disk.              │
│                              ┌──────┐   │
│                              │ Exec │   │
└──────────────────────────────┴──────┴───┘
```

This formats a disk to be used by the K5000S. The K5000S uses the same format as IBM compatible PCs. If a diskette is already formatted in standard PC format, then it is not necessary to reformat the disk.

L1   **FORMAT TYPE**
Choose the type of disk you wish to format: 1.4MB for High Density diskettes (2HD), 720KB for older Double Density diskettes (2DD).

F8   **EXECUTE**
This starts the format process. Press F8 to continue, F1 to cancel.

FILE FORMAT LIST

The following file formats can be read and written by the K5000S:

FUNCTION	DATA	FILE TYPE	FILE NAME	EXAMPLE	READ/WRITE
Save/Load	Single ADD	One	*.KA1	A32	o
		All	*.KAA	A1-A64	o
	Multi	One	*.KC1	M1	o
	(or Combi)	All	*.KCA	M1-M64	o
	Arpeggio	All	*.KRA		o
Operating System	Program		K5000SR.SYS		Read Only

QUICK MIDI

The following MIDI messages can be sent from this page. Messages are sent on the MIDI System Channel, set in the System MIDI page. The MIDI System Channel is shown at the top of the screen.

```
Quick MIDI
        TRNS CH A01
> Volume        127  Program      127 <
> Pan           127  Bank         127 <
> Control No.   100  Bank System  Norm <
> Control Value 127
                                  Send
```
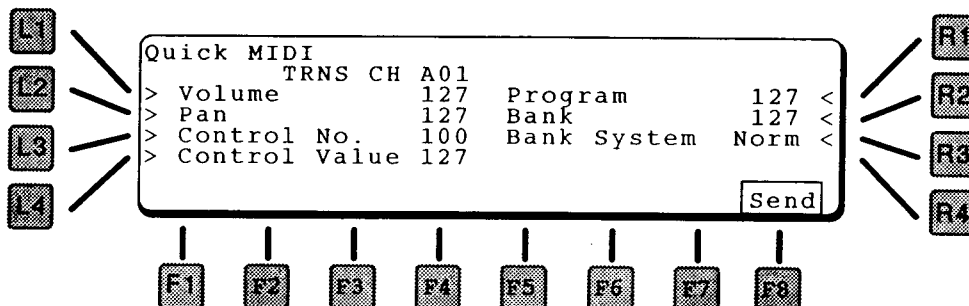
LI VOLUME
Sends a Volume message using Continuous Controller #7.

L2 PAN
Sends a Pan message using Continuous Controller #10.

L3 CONTROL NUMBER
There are 128 Continuous Controller channels in MIDI. Some, like the Volume, Pan, Sustain Pedal, and Bank Select messages are commonly used by all instruments. Other controllers are more specific and are used for everything from synthesizer parameters to automated mixing to controlling stage lights or even a VCR.

This parameter selects one of the Continuous Controller channels for control (0 to 127).

L4 CONTROL VALUE
This sets the *value* of the message sent to the Continuous Controller channel selected above.

RI PROGRAM
Sends a Program Change message, which tells a remote instrument to change to a different sound patch. There are 128 Programs available, numbered from 0 through 127.

R2 BANK
Most recently made instruments contain more than 128 patch programs in memory. MIDI gets around this limitation by dividing the available sound programs into several *banks of programs*. Use the Bank and Bank System messages to specify which bank to switch to. Within an individual bank, the Program Change message can be used to select individual programs.

R3 BANK SYSTEM

The Bank System parameter selects the type of bank select message to send.

NORMAL
Normal – the bank message is sent by itself

I (MSB)
MSB – the bank message is sent with an MSB indication.

2 (LSB)
LSB – the bank message is sent with an LSB indication.

F8 SEND

This transmits all the messages.

.

·

APPENDIX

BANK A (BANK NO. 100)

No	Name	Category
A001	Runner	SFX
A002	Gorgizmo	SFX
A003	DstPulse	Lead
A004	TelMetal	SEQ
A005	Driver	Techno
A006	Reznator	Bass
A007	GOOM	Lead
A008	Heaven	TXT Pad
A009	Creaturz	TXT Pad
A010	K-Bells	Percus
A011	Hardcore	Techno
A012	Mentara	Lead
A013	Shakkiri	Lead
A014	Tweeky	Lead
A015	Tangeri	Lead
A016	Rasty	Lead
A017	Pyper	Lead
A018	Clavaxx	Polysyn
A019	BrasMorf	Polysyn
A020	Insyncer	Polysyn
A021	Fusiac	Polysyn
A022	HyprWyr	Polysyn
A023	History	Polysyn
A024	Launcher	Polysyn
A025	Wintage	Polysyn
A026	LeadVox	Polysyn
A027	VooCoo	Polysyn
A028	Sweepipe	Polysyn
A029	Formanta	Polysyn
A030	HardFaze	TXT Pad
A031	TalkGlas	TXT Pad
A032	Eaglelan	TXT Pad
A033	Bee3Pad	TXT Pad
A034	Zisch	TXT Pad
A035	WheelPad	BG Pad
A036	HotSweet	BG Pad
A037	Engage	BG Pad
A038	Starship	Techno
A039	RaveRizm	Techno
A040	TB5005	Techno
A041	Frogga	Techno
A042	TeknoBas	Techno
A043	RoboBass	Bass
A044	Basstron	Bass
A045	DooBass	Bass
A046	YazzaY	Percus
A047	Richness	Percus
A048	HolyVibe	Percus
A049	Plukk	Percus
A050	Seaworld	SFX
A051	4thPlane	SFX
A052	Moduar	SFX
A053	Chimera	SFX
A054	Opposite	SFX
A055	Nebular	SFX
A056	Melmaker	SFX
A057	Rippin	SFX
A058	Ultimate	SEQ
A059	Talkie	SEQ
A060	Mices	SEQ

BANK D (BANK NO. 102)

No	Name	Category
D001	DaLead	Lead
D002	Dinosaur	Lead
D003	OtaStack	Lead
D004	NoisyLD	Lead
D005	Sunset	Lead
D006	TNT5000	Polysynth
D007	Fantapol	Polysynth
D008	K.Lite	Polysynth
D009	Jumper	Polysynth
D010	VelSquar	Polysynth
D011	Entrance	Polysynth
D012	HerrFumy	Polysynth
D013	UndaWear	Polysynth
D014	Morphos	Polysynth
D015	Gulliver	TXT Pad
D016	Monks	TXT Pad
D017	K-Philes	TXT Pad
D018	Hot Spot	TXT Pad
D019	FloorSaw	BG Pad
D020	Scotty	BG Pad
D021	Peaceful	BG Pad
D022	Breathy	BG Pad
D023	VoiceStr	BG Pad
D024	Chamber	BG Pad
D025	Interpol	BG Pad
D026	O-Tone	BG Pad
D027	Raver	Techno
D028	FFBass	Bass
D029	Crystalz	Percus
D030	WireTrap	Percus
D031	CybaStrt	Percus
D032	Vector	Percus
D033	Nylong	Percus
D034	BellEcho	Percus
D035	NewGhost	SFX
D036	Aquarius	SFX
D037	Meltonin	SFX
D038	Moover	SFX
D039	Castalia	SFX
D040	Quack	SEQ

MULTI BANK SOUNDS

M01	NewWorld	M33	Uglyduck
M02	Halo	M34	AttkBras
M03	Yin&Jan	M35	Midnight
M04	EyesLee	M36	Bas¥Lead
M05	Horror	M37	Dreamin
M06	CHRMLead	M38	Heather
M07	BeGentle	M39	Moonset
M08	BraStack	M40	BigWorld
M09	Tibetan	M41	H.Vibe*2
M10	Sphere	M42	DreamHrn
M11	ESP.Bass	M43	KamAlien
M12	Meltopol	M44	FarFa
M13	CybaTekn	M45	Mallthit
M14	FatPlukk	M46	Add*Zon2
M15	Junctio2	M47	Sunlite
M16	SuperLow	M48	Bell-pol
M17	Ota_mill	M49	SoftLead
M18	TimeWrp2	M50	Wavers
M19	LochNess	M51	Histry*3
M20	MonoPoly	M52	CashFlo2
M21	AddSDrum	M53	RotoPad
M22	TecSplit	M54	ThikClav
M23	ASIA2	M55	HelpHand
M24	Vantage	M56	Sta+Crec
M25	Purple-O	M57	Submerg2
M26	HalfTone	M58	HyprComp
M27	Calmy	M59	Fleeting
M28	UnizoLD	M60	LeadIt
M29	NoHitter	M61	Passing
M30	RockLead	M62	RawAdd1
M31	S-Pluck	M63	AftrThot
M32	London	M64	Open2001

EFFECT PARAMETER

Parameter 1 is R dry/WET1 or
E DRY/WET (or controller)

R DRY/WET2 (or controller)
E PARA (or controller)

<< default table >>

No.	mode	layout	Parameter 1 name	Parameter 1 value (def.)	Parameter 2 name	Parameter 2 value (def.)	Parameter 3 name	Parameter 3 value (def.)	Parameter 4 name	Parameter 4 value (def.)	Parameter 5 name	Parameter 5 value (def.)
1	rev hall 1 (Standard)	stereo	dry/wet 1	0 - 100 (85/15)			rev time	0.3 - 3.0S (1.5S)	predly time	0 - 100mS(30mS)	hi freq damp	1 - 100 (22)
2	rev hall 2 (Small)	stereo	dry/wet 1	0 - 100 (40/60)			rev time	0.3 - 3.0S (1.5S)	predly time	0 - 100mS(50mS)	hi freq damp	1 - 100 (5)
3	rev hall 3 (Bright)	stereo	dry/wet 1	0 - 100 (70/30)			rev time	0.3 - 3.0S (3.0S)	predly time	0 - 100mS(50mS)	hi freq damp	1 - 100 (22)
4	rev room 1 (Standard)	stereo	dry/wet 1	0 - 100 (85/15)			rev time	0.3 - 3.0S (0.6S)	predly time	0 - 100mS(60mS)	hi freq damp	1 - 100 (22)
5	rev room 2 (Large)	stereo	dry/wet 1	0 - 100 (80/20)			rev time	0.3 - 3.0S (1.0S)	predly time	0 - 100mS(3mS)	hi freq damp	1 - 100 (15)
6	rev room 3 (Bright)	stereo	dry/wet 1	0 - 100 (65/25)			rev time	0.3 - 3.0S (1.5S)	predly time	0 - 100mS(30mS)	hi freq damp	1 - 100 (5)
7	rev plate 2 (Large)	stereo	dry/wet 1	0 - 100 (70/30)			rev time	0.3 - 3.0S (1.0S)	predly time	0 - 100mS(40mS)	hi freq damp	1 - 100 (40)
8	rev plate 2 (Small)	stereo	dry/wet 1	0 - 100 (80/20)			rev time	0.3 - 3.0S (1.05)	predly time	0 - 100mS(3mS)	hi freq damp	1 - 100 (5)
9	rev plate 3 (Mellow)	stereo	dry/wet 1	0 - 100 (70/30)			rev time	0.3 - 3.0S (2.0S)	predly time	0 - 100mS(30mS)	hi freq damp	1 - 100 (20)
10	reverse <: no reverb	stereo	dry/wet 1	0 - 100 (9/100)			rev time	0.3 - 3.0S (3.0S)	predly time	0 - 100mS(40mS)	hi freq damp	1 - 100 (20)
11	long dly <: no reverb	stereo	dry/wet 1	0 - 100 (40/60)			feed back	1 - 100 (10)	predly time	0 - 100mS(0mS)	hi freq damp	1 - 100 (20)
12	early ref. 1	stereo	dry/wet	0 - 100 (30/70)	stereo	1 - 100 (1)		1 - 100 (100)	dly time	200-1470mS(1300mS)		
13	early ref. 2	stereo	dry/wet	0 - 100 (60/40)	phase	1 - 100 (19)			predly time	0 - 100mS(5mS)	feed back	1 - 100 (10)
14	tap dly 1	stereo	dry/wet	1 - 100 (100)	dly time 1	0 - 720mS(150mS)	tap M	1 - 100 (90)	predly time	0 - 100mS(35mS)	feed back	1 - 100 (50)
15	tap dly 2	mono	dry/wet	1 - 100 (100)	dly time 1	0 - 720mS(150mS)	tap M	1 - 100 (80)	dly time 2	0 - 720mS(175mS)	feed back	1 - 100 (50)
16	single dly	stereo	dry/wet	1 - 100 (25)			dly time	0 - 9 (0mS)	dly coarse	0 - 720mS(250mS)	feed back	1 - 100 (55)
17	dual dly	stereo	dry/wet	1 - 100 (40)					dly time	0 -1270mS(300mS)	feed back	1 - 100 (50)
18	stereo dly	mono/ste	dry/wet	1 - 100 (50)	dly time 1	0 - 720mS(150mS)	feed back 1	1 - 100 (60)	dly time 2	0 - 720mS(230mS)	feed back 2	1 - 100 (50)
19	cross dly	mono/ste	dry/wet						dly time	0 - 720mS(230mS)	feed back 2	1 - 100 (33)
20	auto pan	stereo	dry/wet	0 - 100 (24/76)	speed	1 - 100 (14)	depth	1 - 100 (91)	dly time	0 - 720mS(200mS)	feed back	1 - 100 (55)
21	auto pan & dry	mono/ste	dry/wet	0 - 100 (50/50)	speed	1 - 100 (14)	depth	1 - 100 (91)	predly time	0 - 100mS(32mS)	wave	sin/tri (sin)
22	chorus 1	stereo	dry/wet	0 - 100 (50/50)	speed	1 - 100 (6)	depth	1 - 100 (75)	dly time	0 - 200mS(150mS)	wave	sin/tri (sin)
23	chorus 2	mono/ste	dry/wet	0 - 100 (32/48)	speed	1 - 100 (6)	depth	1 - 100 (75)	predly time	0 - 100mS(28mS)	wave	sin/tri (sin)
24	chorus1 & dry	stereo	dry/wet	0 - 100 (50/50)	speed	1 - 100 (6)	depth	1 - 100 (75)	dly time	0 - 200mS(28mS)	wave	sin/tri (sin)
25	chorus2 & dry	mono/ste	dry/wet	0 - 100 (32/48)	speed	1 - 100 (2)	depth	1 - 100 (75)	dly time	0 - 200mS(150mS)	wave	sin/tri (sin)
26	flanger 1	stereo	dry/wet	0 - 100 (50/50)	speed	1 - 100 (6)	depth	1 - 100 (54)	predly time	0 - 100mS(0mS)	feed back	1 - 100 (46)
27	flanger 2	mono/ste	dry/wet	0 - 100 (33/65)	speed	1 - 100 (6)	depth	1 - 100 (75)	predly time	0 - 100mS(0mS)	feed back	1 - 100 (50)
28	flanger1 & dry	stereo	dry/wet	0 - 100 (33/65)	speed	1 - 100 (2)	depth	1 - 100 (54)	predly time	0 - 100mS(0mS)	feed back	1 - 100 (46)
29	flanger2 & dry	stereo	dry/wet	0 - 100 (50/50)	speed	1 - 100 (6)	depth	1 - 100 (75)	dly time	0 - 200mS(100mS)	feed back	1 - 100 (50)
30	ensemble	mono/ste	dry/wet	0 - 100 (50/50)			depth	1 - 100 (73)	dly time	0 - 200mS(60mS)	feed back	1 - 100 (50)
31	ensemble & dry	mono/ste	dry/wet	0 - 100 (39/70)			depth	1 - 100 (73)	dly time	0 - 100mS(40mS)		
32	celeste	mono/ste	dry/wet	0 - 100 (11/92)	speed	1 - 100 (6)	depth	1 - 100 (73)	dly time	0 - 200mS(200mS)		
33	celeste & dry	mono/ste	dry/wet	0 - 100 (39/70)	speed	1 - 100 (6)	depth	1 - 100 (73)	predly time	0 - 100mS(80mS)		
34	tremolo	stereo	dry/wet	0 - 100 (80/20)	speed	1 - 100 (6)	depth	1 - 100 (49)	dly time	0 - 200mS(100mS)		
35	tremolo & dry	mono/ste	dry/wet	0 - 100 (15/85)	speed	1 - 100 (33)	depth	1 - 100 (49)	dly time	0 - 100mS(0mS)		
36	phaser 1	stereo	dry/wet	0 - 100 (9/100)	speed	1 - 100 (33)	depth	1 - 100 (93)	predly time	0 - 200mS(170mS)	wave	sin/tri (sin)
37	phaser 2	stereo	dry/wet	0 - 100 (9/100)	speed	1 - 100 (2)	depth	1 - 100 (73)	dly time	0 - 100mS(0mS)	feed back	1 - 100 (80)
38	phaser1 & dry	stereo	dry/wet	0 - 100 (9/100)	speed	1 - 100 (4)	depth	1 - 100 (93)	predly time	0 - 100mS(60mS)	feed back	1 - 100 (80)
39	phaser2 & dry	mono	dry/wet	0 - 100 (9/100)	speed	1 - 100 (6)	depth	1 - 100 (73)	dly time	0 - 200mS(200mS)	feed back	1 - 100 (80)
40	rotary	mono/ste	dry/wet	0 - 100 (9/100)	speed	1 - 100 (7)	depth	1 - 100 (75)	dly time	0 - 200mS(160mS)	feed back	1 - 100 (50)
41	auto wah	stereo	dry/wet	0 - 100 (15/85)	slow spd	20 - 100 (7)	last spd	20 - 100 (71)	acceleration	1 - 10 (1)	slow/fast	slw/fst (fst)
42	bandpass	mono	dry/wet	0 - 100 (60)	reso	1 - 100 (60)	freq.btm	1 - 100 (30)	freq.top	1 - 100 (80)	resonance	1 - 100 (50)
43	exciter	stereo	dry/wet	0 - 100 (50)	center freq	1 - 100 (50)	band width	1 - 100 (50)				
44	enhancer	stereo	dry/wet	0 - 100 (9/100)	EQ low	-12~+12dB(0 dB)	EQ high	-12~+12dB(0 dB)			intensity	1 - 100 (50)
45	overdrive	mono	dry/wet	0 - 100 (10/90)	EQ low	-12~+12dB(0 dB)	EQ high	-12~+12dB(0 dB)			intensity	1 - 100 (50)
46	distortion	mono	dry/wet	0 - 100 (60/40)	EQ low	-12~+12dB(0 dB)	EQ high	-12~+12dB(0 dB)			drive	1 - 100 (50)
47	overdrive & dry	mono	dry/wet	0 - 100 (9/100)	EQ low	-12~+12dB(0 dB)	EQ high	-12~+12dB(0 dB)	output M	1 - 100 (50)	drive	0 - 200mS(150mS)
48	distortion & dry	mono	dry/wet	0 - 100 (9/100)	EQ low	-12~+12dB(0 dB)	EQ high	-12~+12dB(0 dB)	dly time	0 - 200mS(150mS)	drive	1 - 100 (50)

KAWAI K5000S ADVANCED ADDITIVE SYNTHESIZER

Wave #	Group	Memo	Wave #	Group	Memo
342	Inst Noise Attack	Piano Noise Attack	399	Cyclic Loop	Syn PWM Cyc
343		EP Noise Attack	400		Harpshichord Cyc
344		Percus Noise Attack	401		Digi EP Cyc
345		Dist Gtr Noise Attack	402		Soft EP Cyc
346		Orch Noise Attack	403		EP Bell Cyc
347		Flanged Noise Attack	404		Bandneon Cyc
348		Saw Noise Attack	405		Chees Organ Cyc
349		Zipper Noise Attack	406		Organ Cyc
350	Inst Noise Looped	Organ Noise Looped	407		Oboe Cyc
351		Voilin Noise Looped	408		Crystal Cyc
352		Crystal Noise Looped	409		Syn Bass1 Cyc
353		Sax Breath Looped	410		Syn Bass2 Cyc
354		Panflute Noise Looped	411		Syn Saw1 Cyc
355		Pipe Noise Looped	412		Syn Saw2 Cyc
356		Saw Noise Looped	413		Syn Saw3 Cyc
357		Gorgo Noise Looped	414		Syn Square1 Cyc
358		Enhancer Noise Looped	415		Syn Square2 Cyc
359		Tabla Spectrum Noise Looped	416		Syn Pulse1 Cyc
360		Cave Spectrum Noise Looped	417		Syn Pulse2 Cyc
361		White Noise Looped	418		Pulse20 Cyc
362	Inst Attack	Clavi Attack	419		Pulse40 Cyc
363		Digi EP Attack	420		Nasty Cyc
364		Glocken Attack	421		Mini Max Cyc
365		Vibe Attack	422		Bottom Cyc
366		Marimba Attack	423		Over 64th harm onics only Cyc
367		Org Key Click	424		Over 64th harmonics only Cyc
368		Slap Bass Attack			
369		Folk Gtr Attack	425	Percus Attack	BD Attack
370		Gut Gtr Attack	426		Ana Kick
371		Dist Gtr Attack	427		SD Attack
372		Clean Gtr Attack	428		Tiny SD Attack
373		Muted Gtr Attack	429		Ana SD Attack
374		Cello & Violin Attack	430		Ana HHO Attack
375		Pizz Violin Attack	431		Simonzu Tom Attack
376		Pizz Double Bass Attack	432		Ride Cup Attack
377		Doo Attack	433		Cowbell Attack
378		Trombone Attack	434		Conga Attack
379		Brass Attack	435		CongaMuted Attack
380		F.Horn1 Attack	436		Agogo Attack
381		F.Horn2 Attack	437		Castanet Attack
382		Flute Attack	438		Claves Attack
383		T.Sax Attack	439		Tambourine Attack
384		Shamisen Attack	440		JingleBell Attack
385	Analog Attack	Voltage Attack	441		BellTree Attack
386		BBDigi Attack	442		WindowChime Attack
387		BBDK Attack	443		Atarigane Attack
388		BBBlip Attack	444		Rama Attack
389		Techno Hit Attack	445		Udo Attack
390		Techno Attack	446		TablaNa Attack
391		X-Piano Attack	447		Voice Ou Attack
392	Analog Loop	Noisy Voise Looped	448		HighQ Attack
393		Noisy Human Looped	449		Super Q Attack
394		Ravoid Looped	450		Glass Attack
395		Hyper Looped	451		Metal Attack
396		Beef Looped	452		Noise Attack
397		Texture Looped	453		Pop Attack
398		MMBass Looped			
			454	S.E Loop	Crash Looped
			455		Burner Looped
			456		Jet Engine Looped
			457	Omnibus Loop	Omnibus Loop 1
			458		Omnibus Loop 2
			459		Omnibus Loop 3
			460		Omnibus Loop 4
			461		Omnibus Loop 5
			462		Omnibus Loop 6
			463		Omnibus Loop 7
			464		Omnibus Loop 8

英文