

Getting Started

DPS V77

Main Features

The DPS-V77 is a full stereo multi-effect processor.

A Rich selection of preset effects from the DPS series

The DPS-V77 incorporates both quality preset effects chosen from the DPS-R7/D7/M7/F7 sound series (these processors are trusted by professional musicians and producers alike) and a host of exciting newly developed effects that let you go beyond traditional genre classifications. In addition, the two fully outfitted multi-type effect blocks (each allowing you to choose from the full range of effects) and two EQ blocks allow for tremendously flexible sound shaping.

User-friendly operating environment

A primary concern when creating the DPS-V77, was to provide musicians and engineers with a powerful operating system for fast, efficient, and creative sound control. The shuttle ring and ten key number pad provide almost instantaneous access to any effect, program, or parameter setting. The large display and function keys let you carry out simple edit functions directly from the play screen, perfect for live and/or studio situations where timing is crucial (see page 20).

Seamless changes between memorized effects (morphing*)

Everyone's probably encountered the frustration of changing effects in mid-tune only to have the previous effect cut out unnaturally (such as a sudden loss of reverb or delay). This unit's morphing function automatically crossfades the new and previous effects. Therefore, you can maintain reverb resonance while bringing in a flanger, or shift pitch while the chorus element fades (see page 16).

* You can only use one effect block when morphing.

Large memory banks

In addition to the 198 different preset effects created by musicians and engineers from around the world (PRESET memory), there is also room for you to store up to 198 of your own original effects (USER memory). We've also made it easy to organize the memory so you can recall effects you need without hassle.

Full MIDI compatibility

You can use MIDI controls like wheels and velocity effect controllers to adjust effect parameters in real time (RTC). The MIDI interface also lets you conduct program change and data save operations. (See page 21 for RTC, and page 26 for general MIDI information.)

Digital IN/OUT terminals

In addition to the two types of analog IN/OUT terminals, PHONE UNBALANCED and XLR BALANCED, the DPS-V77 is also provided with digital IN/OUT capability (optional cables are available for either SDPIF or AES/EBU connections). Use the digital IN/OUT to preserve signal quality when making connections with CD players or additional DPS-V77 units, or for direct digital mixdown to DAT recorders. In addition, you can output signals from the analog input jacks as digital, output signals from the digital input jacks as analog, and even use both the analog and digital jacks at the same time. (See page 12 for basic hookups, or page 13 for digital hookups.)

How to Use This Manual

These operating instructions describe setup and operating procedures for the DPS-V77 multi-effect processor.

Before using this unit we do recommend taking a glance at the "Functional Hierarchy" chart on page 5 and reading "Understanding the Signal Flow" on page 8 to familiarize yourself with the unit.

"Hooking Up" shows you how to make different kinds of connections between this unit and instruments, mixers, and/or components.

The remaining chapters show you how to operate the unit. Refer to each as necessary.

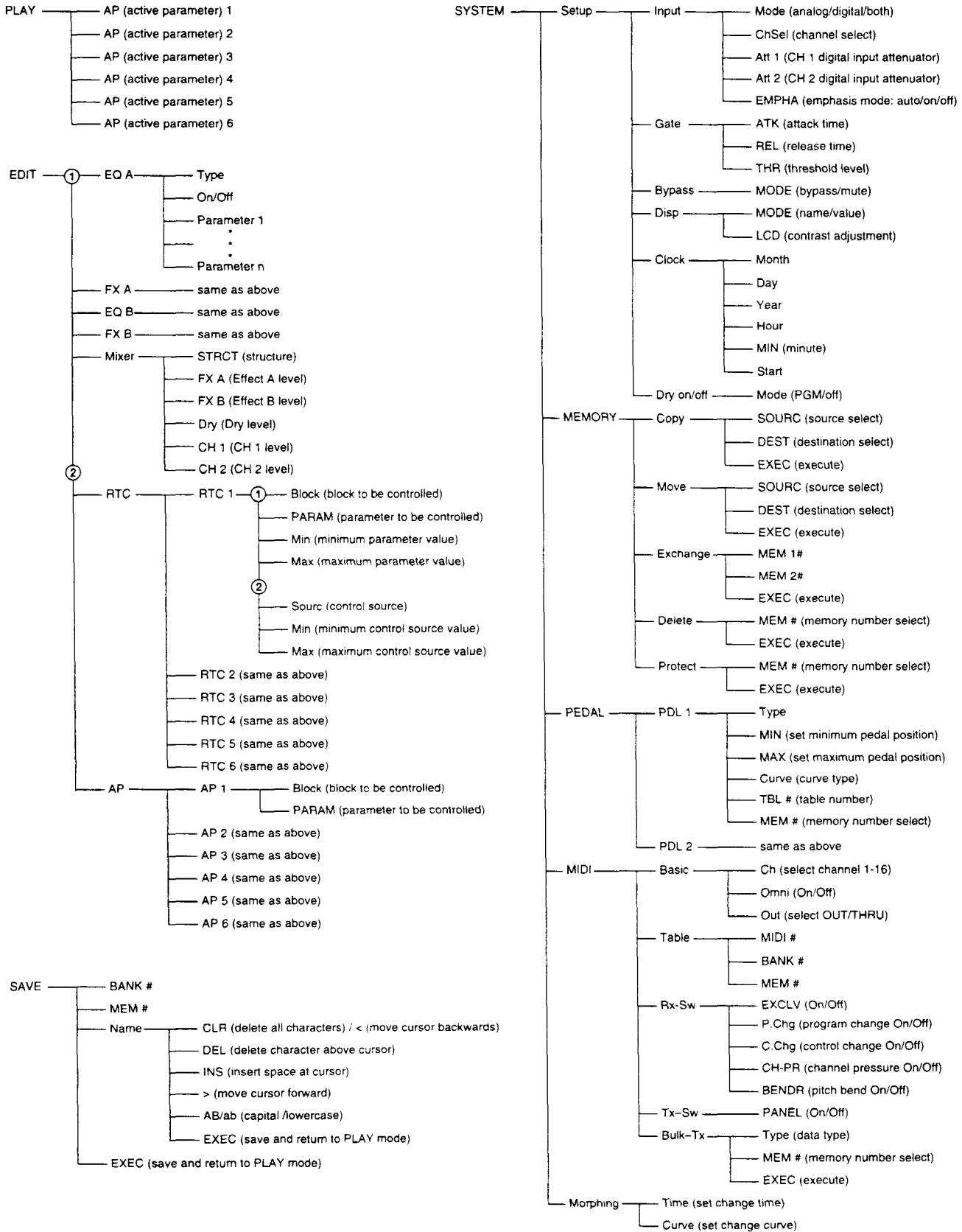
For specific information regarding the effects and parameters, refer to the separate "Effect Parameter Guide." For information regarding the preset memory, refer to the separate "Preset Memory Catalog."

- The following icon is used in this manual:



Indicates hints and tips for making the task easier.

Functional Hierarchy



Additional Information

Troubleshooting

If this unit does not operate as expected, the problem may simply be an oversight, a disconnected cable or a setting error. Before calling a service technician, compare the symptoms of the problem with those listed below to see if you can correct the problem yourself.

No sound is heard, or the sound is small.

- ➔ Press BYPASS to cancel mute.
- ➔ When inputting analog signals, check to see if the INPUT knob is set to the appropriate level.
- ➔ When inputting digital signals, check the Input levels in the System: Setup.
- ➔ Check that all the cables are connected correctly.
- ➔ Make sure the appropriate input mode is selected on the System: Setup Input screen. You cannot input analog signals if the input mode is set to "DIGTL."
- ➔ Make sure the effect levels in the mixer block are not set excessively low.
- ➔ Check the volume of the connected amplifier or mixer.

The sound is not modified by the selected effect.

- ➔ Press BYPASS to cancel bypass.
- ➔ Is the effect set to "OFF"?

The morphing effect does not work.

- ➔ Make sure to SAVE the effect after changing the structure to [MORPH].
- ➔ Make sure the structures of all the effects you want to morph between are set to [MORPH].

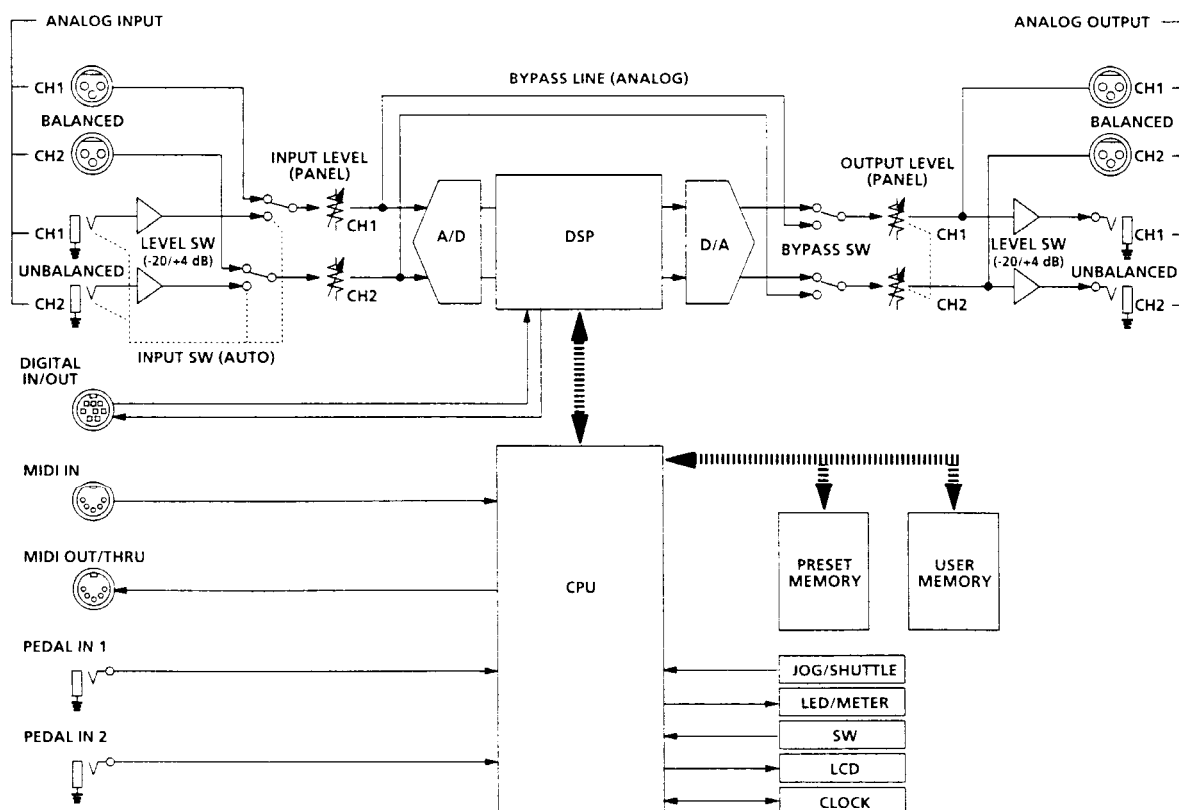
The input level CLIP indicator lights.

- ➔ Turn INPUT to the left to reduce the input level.
- ➔ Reduce the output level of the source component.
- ➔ Set the INPUT level selector switch to +4 dB and use the INPUT adjustment knob to re-adjust the input level.

MIDI operations cannot be carried out.

- ➔ Make sure the MIDI receive channel matches the transmit channel of the MIDI device.
- ➔ Make sure the MIDI control number is set correctly.
- ➔ Make sure the MIDI cable is connected securely.

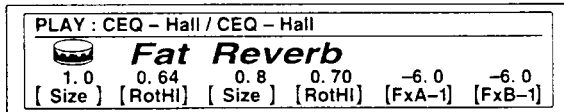
Block Diagram



Changing the Structure

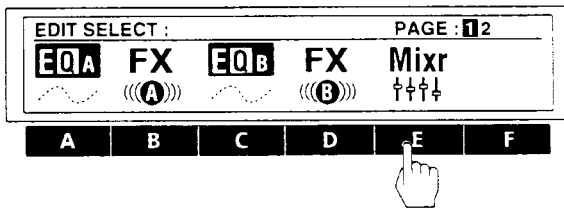
The effector contains two main effect blocks which perform signal processing to add effects to the incoming signals. You can produce different sounds by changing the structure (configuration) of these two blocks (see page 8 for details).

1 Choose the effect you want to edit.

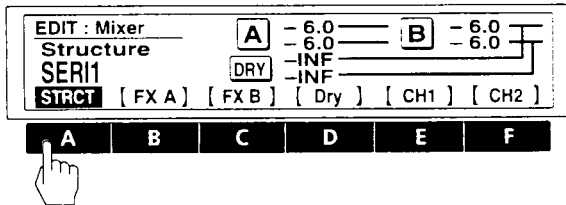


2 Press EDIT/PAGE.

3 Press FUNCTION E to choose "Mixr."



4 Press FUNCTION A [STRCT].

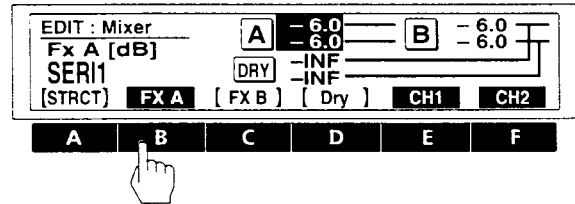


5 Turn the operation dial to choose the structure you desire.

SERI 1 (serial processing from FX A to FX B)
 SERI 2 (serial processing from FX B to FX A)
 PARA (parallel processing of FX A and FX B)
 DUAL (processes CH 1 into FX A and CH 2 into FX B)
 MORPH (morphing, see page 16)

See pages 8 and 9 for descriptions of each structure.

6 Use FUNCTION B [FX A], C [FX B], or D [Dry], if you want to change the output levels.



Press FUNCTION E or F after choosing FX A, FX B, or Dry to adjust the levels for each channel independently.

7 Turn the operation dial to choose the setting you desire.

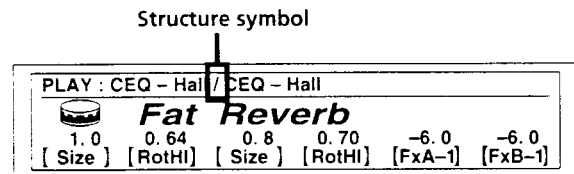
See page 10 for additional information regarding the output levels.

Press SAVE to store the new structure settings (see page 22).

Press EXIT a few times to return to the play screen.

Checking the Structure in PLAY Mode

The symbol in the center of the title bar changes according to the structure of the effect.



Effect names dimmed in the PLAY: bar are effects that are currently set to [OFF].

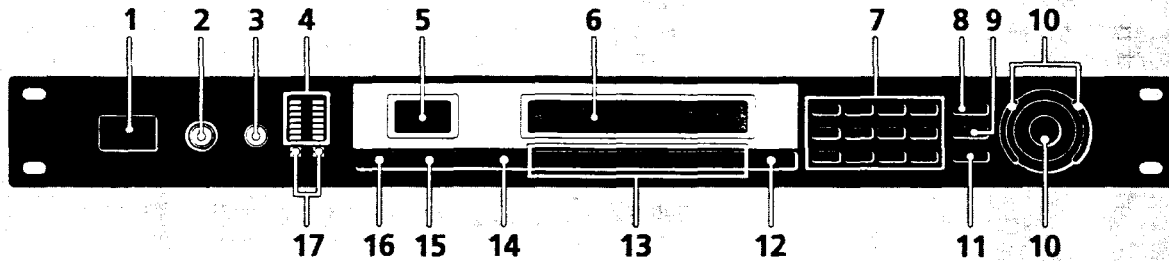
symbol	structure
>	SERI 1 (serial 1) FX A → FX B
<	SERI 2 (serial 2) FX B → FX A
/	PARA (parallel) FX A + FX B
:	DUAL (dual) FX A (ch 1) + FX B (ch 2)
No Block B	MORPH (morphing) FX A → next memory

See pages 8 and 9 for descriptions of each structure.

Getting Started

Names and Functions of Parts

Front panel



1 POWER ON/OFF switch

Press this switch to turn the power on and off. Turning on the power recalls the last used memorized effect and activates play mode automatically.

2 INPUT level adjustment knob

Turn the knob to the left or right to adjust the input level. Adjustments can be made independently for each channel. The outer knob adjusts channel 1 (CH 1) and the inner knob adjusts channel 2 (CH 2) (page 14).

3 OUTPUT level adjustment knob

Turn to the left or right to adjust the output level from the output jacks.

4 Input level meter

Indicates the strength of the input signal from -36 dB to CLIP (overload) with green, orange, and red indicators (page 14).

5 Memory number display window

Displays the memory number of current effect. 99 different effects are stored in each of the PRESET memory banks and up to 99 effects can be stored in each of the USER memory banks.

6 Multi display

Displays various information, such as the name of the currently selected effect, parameter values, and messages.

7 Number buttons

Use these buttons to recall effects from the currently chosen memory bank directly and input exact parameter values (page 14).

Use ▲ or ▼ while holding down ENTER/SHIFT to make incremental adjustments to parameter values (page 14).

8 SAVE button

Use this button after changing parameter values to save a custom effect in one of the USER memory banks (page 22).

9 SYSTEM button

Use this button to access the system menus and customize the effector's operating environment (pages 24 and 25).

10 Operation dial/Shuttle ring

Use to select memory numbers from the currently selected memory bank and make adjustments to parameter settings. The operation dial lets you advance in one-step increments. The jog dial lets you advance rapidly in larger increments. The rate of advance (or value change) changes according to the angle of the shuttle ring.

11 ENTER/SHIFT button

Use this button to enter a memory number or parameter value input with the numeric buttons (page 14). Hold down while pressing the ▲ or ▼ button to make a one-step adjustment to a memory number or a parameter value (page 14).

12 EXIT button

Press after or during a setting procedure to return to the previous screen or mode, or to de-select an active parameter on the play screen.

13 FUNCTION A-F buttons

Use to select the items displayed above the respective buttons.

14 EDIT/PAGE button

Press during play mode to access the edit screen and make changes to the current effect (page 17). Press to display different pages of multi-page menus (page 17).

15 BANK/COMPARE button

Press to select the memory bank containing the effect you desire (page 14). In edit mode, press to compare alterations in effect parameters to the unaltered effect (page 18).

16 BYPASS/MUTE button

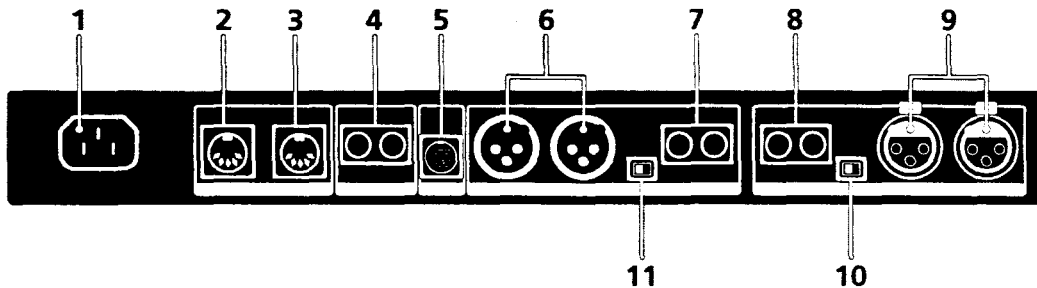
Press to route the signal around the effect processing circuitry so that the signal being input is output unchanged (bypass), or to completely cut output from the effector (mute), (see page 15).

17 Memory bank indicators

Indicate the currently selected memory bank: PRESET 1, PRESET 2, USER 1, or USER 2 (see page 14).

Names and Functions of Parts

Rear panel



1 AC power cord socket

For connecting the effector to an AC power outlet using the supplied AC power cord.

2 MIDI THRU/OUT terminal

For sending and/or relaying MIDI command signals from the effector to other components (see page 26 to select THRU or OUT).

3 MIDI IN terminal

Input for MIDI command signals. Use a commercially available MIDI cable to connect this terminal to another component's MIDI OUT (or THRU) terminal.

4 PEDAL 1 and 2 jacks

Inputs for pedal switches and/or volume control (pages 21 and 25).

5 DIGITAL I/O terminal

Use digital interface cable RK-V77A (for AES/EBU) or RK-V77S (for SPDIF) to make digital connections between the effector and other components (pages 8, 12, 13 and 29).

6 BALANCED OUTPUT jacks

Balanced output jacks for channel 1 and channel 2 (pages 9 and 10).

7 STANDARD OUTPUT jacks

Standard output jacks for channel 1 and channel 2 (pages 9 and 10).

8 STANDARD INPUT jacks

Standard input jacks for channel 1 and channel 2 (pages 9 and 10).

9 BALANCED INPUT jacks

Balanced input jacks for channel 1 and channel 2 (pages 9 and 10).

10 INPUT level selector switch

Use to set the input level of the STANDARD INPUT jacks (8) to match the output level of the connected equipment. You can select a -20 dB or +4 dB input level.

11 OUTPUT level selector switch

Use to set the output level of the STANDARD OUTPUT jacks (7) to match the input level of the connected equipment. You can select a -20 dB or +4 dB output level.

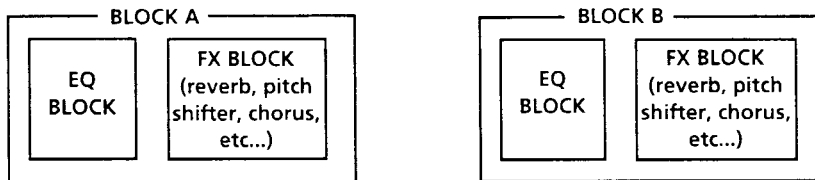
Getting Started

Understanding the Signal Flow

This unit takes in audio signals from two types of input jacks (digital and analog), processes them using various internal blocks, and outputs them through the analog and digital output jacks. To make the most of this unit, it is essential that you have a firm understanding of the audio signal flow. This section provides an explanation of the internal blocks and how they process the input and output audio signals.

Block and structure

The audio signal processor in this unit is divided into two parts, BLOCK A and BLOCK B. Each of these blocks is composed of an EQ BLOCK and an FX (effect) BLOCK. The EQ BLOCK works as an equalizer. The FX BLOCK contains a large number of multi-effects.



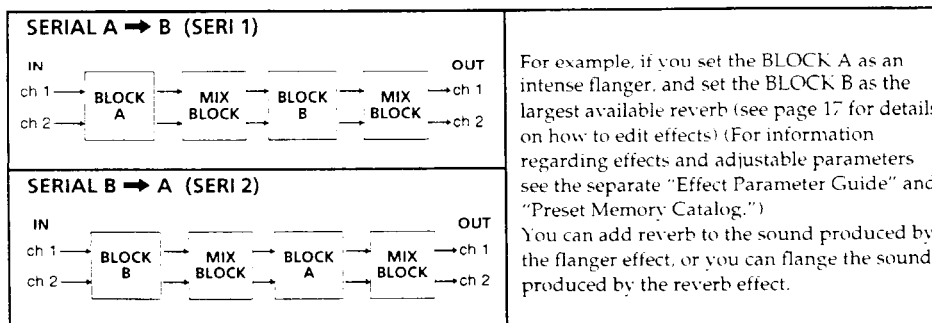
The positioning of the EQ block and the FX block is determined when editing the EQ BLOCK by choosing either "Pre" or "Post" in the [Mode] parameter. In other words, you can choose, independently within BLOCK A and BLOCK B, whether to add the effect to the sound coming from the equalizer, or equalize the sound produced by the effect.

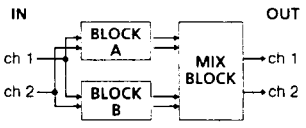
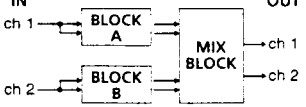
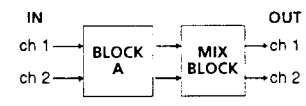
➔ See page 17 to EDIT an effect.



It's also necessary to determine the positions of the larger blocks, BLOCK A and BLOCK B. Their positioning, the way they are connected, is called the "structure." Set the structure according to the kind of sound you want to make. The structure screen not only lets you choose the structure type (see the following chart), but also lets you adjust the output level for each block (represented in the chart by the MIX BLOCK).

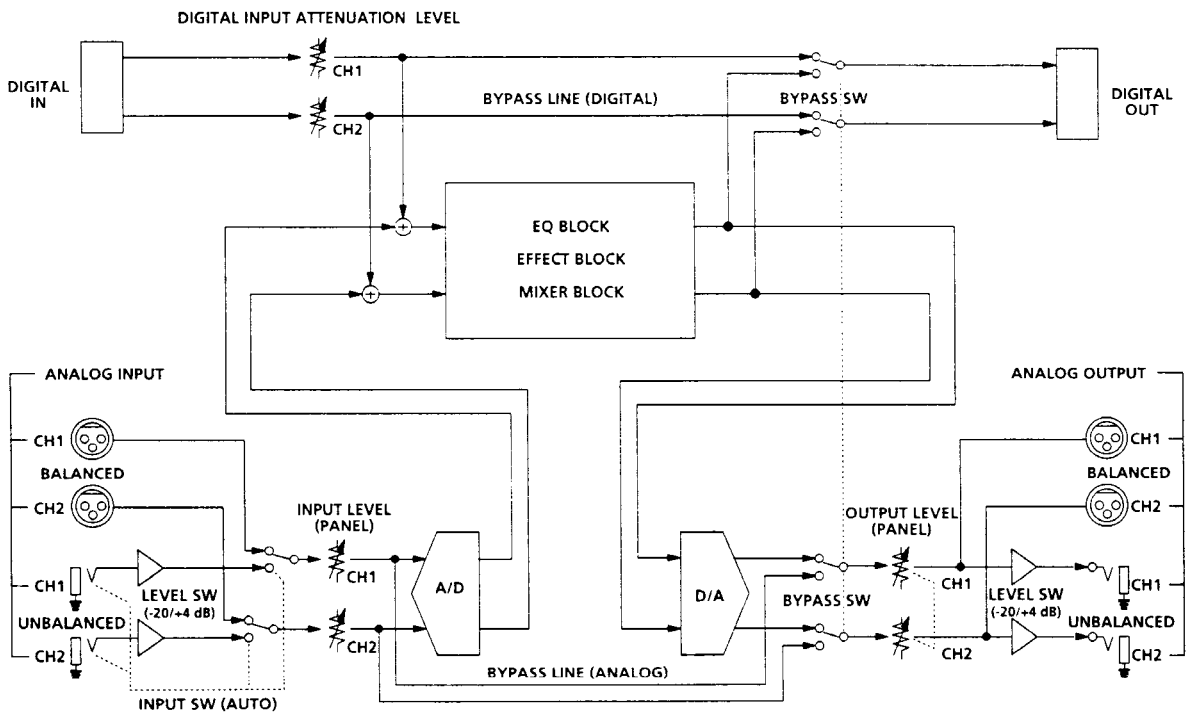
➔ See page 19 to change the structure.



<p>PARALLEL (PARA)</p> 	<p>This structure lets you apply effects, like flanger and reverb, separately and then mix them before output. In this case, there's no undulation from the flanger in the reverb.</p>
<p>DUAL (DUAL)</p> 	<p>This structure lets you isolate ch 1 and ch 2. For example, you can connect a guitar to ch 1 and a drum machine to ch 2, then add a flanger effect to the guitar and a reverb effect to the drum machine.</p>
<p>MORPHING (MORPH)</p> 	<p>This structure lets you make seamless changes between effects stored in the memory banks. In other words, it keeps the current effect from suddenly cutting out when you change to another effect. For details on morphing, see "Morphing" on page 16.</p>

Setting the INPUT/OUTPUT levels

This chart shows the overall signal flow relationship between this unit's inputs and outputs. The following information is an overview of all you need to know regarding this unit's inputs and outputs.



You can use the effector as an A/D or D/A converter by turning off all the effects.

Getting Started

Analog IN/OUT and digital IN/OUT

This unit is provided with both analog and digital inputs and outputs, and you can use both of them at the same time. The input block in the SYSTEM: Setup menu lets you determine whether to use the analog, the digital, or both the analog and the digital INPUT/OUTPUT jacks.

➔ See "Setting the DIGITAL IN/OUT" on page 13.

Analog INPUT priority

This unit is provided with both PHONE and XLR type analog INPUT and OUTPUT jacks. Although the signal is always output from both the PHONE and XLR jacks, the PHONE jacks are given priority for the input signal. When the PHONE and XLR INPUT jacks are used at the same time, the XLR signal is automatically cut.

➔ See "Names and Functions of Parts" on page 7.

Emphasis

Some older CDs have "emphasized" high frequency sounds. When outputting an analog signal from an "emphasized" digital source, it is necessary to "de-emphasize" the high frequency sounds and bring them back to their original levels. The [Input] block in the SYSTEM: Setup menu lets you determine whether de-emphasis will be carried out automatically, or manually.

➔ See "Setting the DIGITAL IN/OUT" on page 13.

Adjusting the INPUT/OUTPUT levels (to prevent clipping)

The numbers on the level meter show, in decibels, how much room is left before the INPUT signal reaches the clip point. If the input signal exceeds the clip point (0 dB), clip noise breaks out. This unit's effect processor incorporates a 12 dB leeway. Therefore, even if you raise the signal level to -12 dB, with the EQ block for example, the internal processor will not clip the signal. It is necessary, however, to reduce levels over 0 dB before they are output. To adjust the effect level, choose [Mixer] in the EDIT mode. See "Changing the effect parameters" on page 17 to edit an effect.



Even though you can decrease levels in the mixer block, the most important factor in preserving sound quality is the input level. The following is a general guide line for adjusting the input level, but your eyes and ears are ultimately the most useful tools in determining and maintaining the appropriate input level.

INPUT jacks	Signal	level meter reading
Digital (with the digital attenuator set to 0 dB)	0 dB digital (full swing)	0 dB
Analog (+ 4 dB) BALANCED or UNBALANCED (with the front panel INPUT knob set to 0 dB)	- 21 dB signal	0 dB
	- 4 dB signal	-17 dB
Analog (- 20 dB) UNBALANCED (with the front panel INPUT knob set to 0 dB)	- 2 dB signal	0 dB
	- 20 dB signal	-18 dB

Bypass and Mute

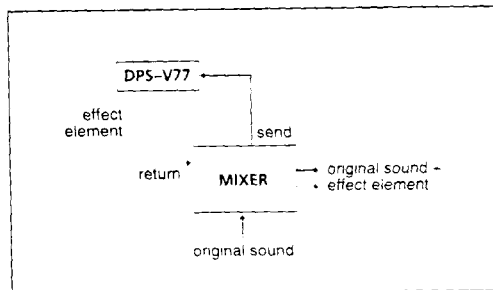
The bypass function outputs the sound of the signal originally input into the effector without adding any effects. Pressing the bypass button turns the bypass function on and off. "Mute" is also available as a form of bypass. When the BYPASS button is set to mute, the sound of the originally signal is cut in addition to the sound of the effects. Therefore, no sound comes from the unit. You can set BYPASS button to operate as either "Mute" or "Bypass" in the SYSTEM: Setup menu.

- ➔ See "Names and Functions of Parts" on page 6.
- ➔ See "Outputting Without Effects (BYPASS/MUTE)" on page 15 to set the bypass mode.

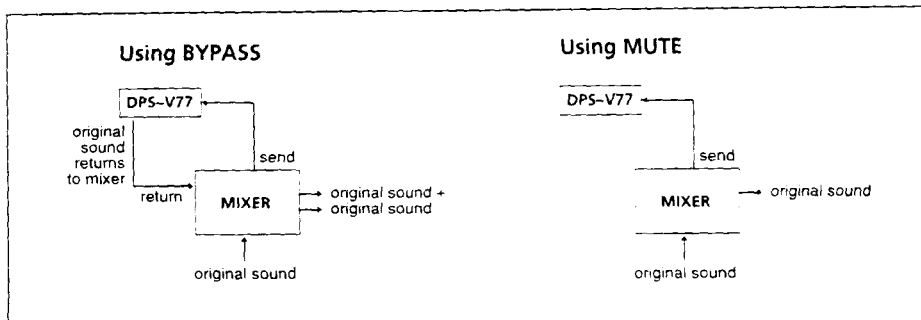


Muting the sound is more than just turning the volume to "0." It is designed to prevent sound from returning to the mixer when the unit is connected in a send-return loop with a mixer. Ideally, when this unit is connected to a mixer, the sound of the input signal is should not be output from this unit, only the sound of the effects should be output (see "Cutting the Direct Sound (Dry On/Off)" on page 25). In this situation, however, using bypass only cuts the sound of the effects, and the sound input into the effector goes back to the mixer, producing a double signal. Using mute prevents the sound input into the effector from returning to the mixer and insures that only the sound generated from the original source (guitar, keyboard, etc.) reaches the mixer. In other words, it is the same as bypass.

When using effects



When NOT using effects

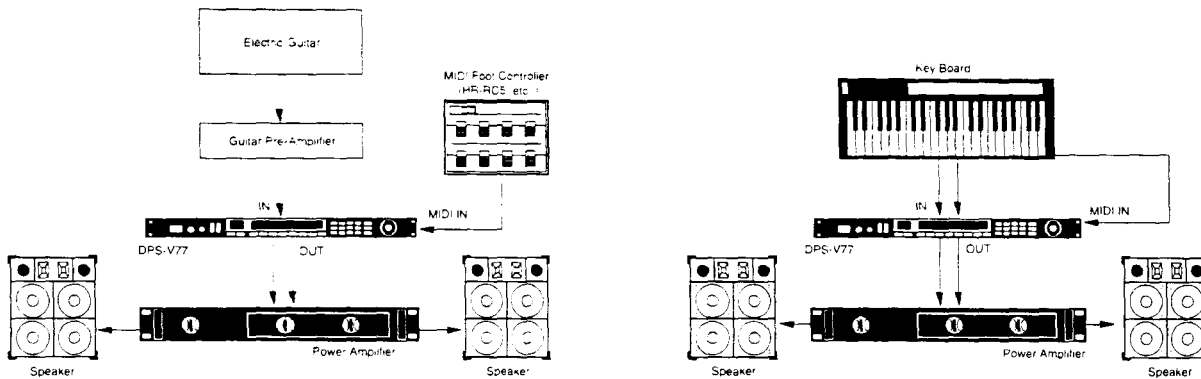


Hooking Up

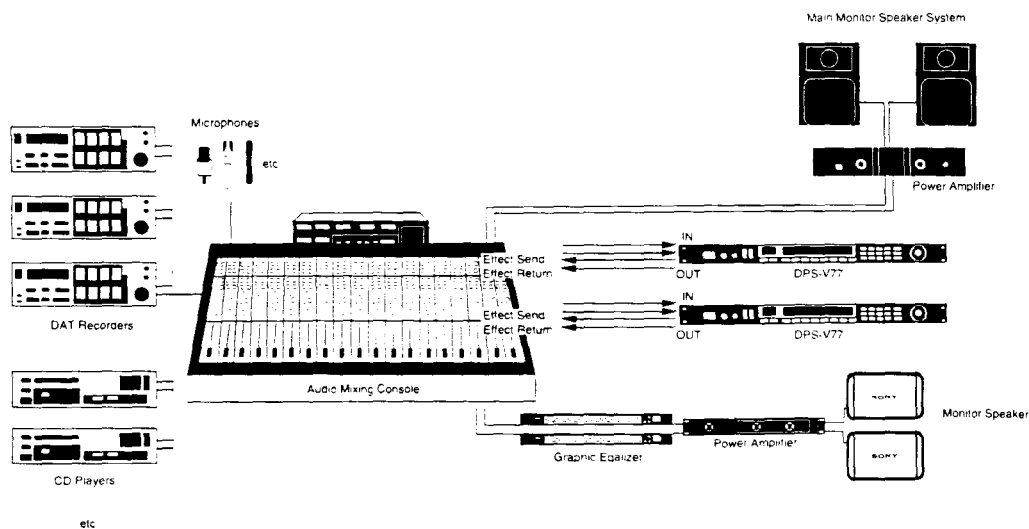
Basic Hookups

- Before connecting this unit to another device, be sure to unplug the AC power cord from the power outlet.
- Turn off the power switch on this unit and all components to be connected, such as keyboards and active speakers (speakers with built in amplifiers).
- After all the connections, double check that the connections are correct before plugging the AC power cord back into the power outlet.
- If the connected components output large signals that cause distortion, adjust the INPUT knob on this unit to lower the input level, or lower the output level of the connected component.

Example 1: Hooking up to an instrument



Example 2: Hooking up to a mixer (cutting the direct sound)

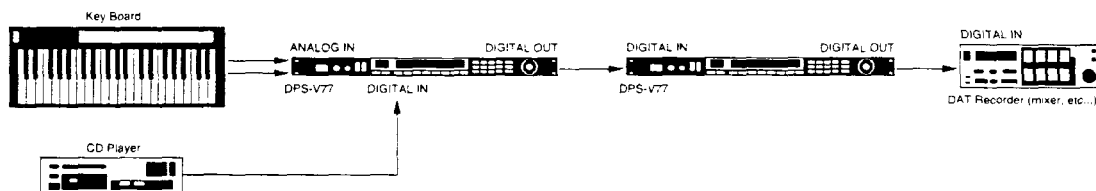


When using the effector in a send-return loop

- We recommend setting the direct output level to $-\infty$ (minus infinity). (See "Cutting the Direct Sound (Dry On/Off)" on page 25.)
- We also recommend setting the BYPASS function to MUTE (as shown on page 15).

Digital Hookups

By taking advantage of the DPS-V77's DIGITAL I/O connectors, you can make digital recordings on DAT recorders, input digital signals from CD, and make digital connections to mixers (see page 29).



Setting the Digital IN/OUT

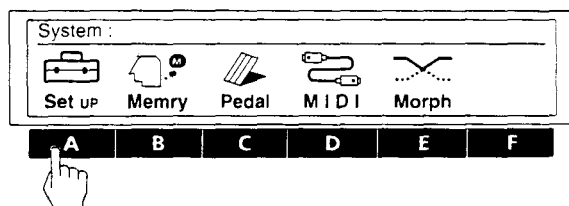
To obtain the best possible sound quality when using the DIGITAL I/O jack, we recommend setting the input mode to digital, instead of both (digital and analog).

The following steps show you how to set the input mode, adjust the digital input level, and select the "de-emphasis" mode.

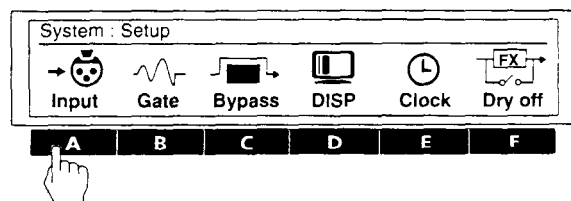
Refer to "Understanding the Signal flow" on page 8 for details regarding the digital signal flow. Also, see "Input Settings and the Input Signal" and "Digital I/O Terminal Chart" on page 29 for additional information.

1 Press SYSTEM.

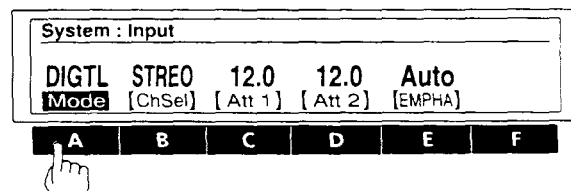
2 Press FUNCTION A to choose "Set Up."



3 Press FUNCTION A to choose "Input."



4 Press FUNCTION A [Mode] and use the operation dial to select "DIGTL" (digital).



You can select analog (ANALG), digital (DIGTL), or both analog and digital (Both) jacks for input and output.

5 Press FUNCTION B [ChSel] and use the operation dial to select the input channel(s).

To use both CH1 and CH2, choose stereo (STREO).

To use only CH1, choose monaural 1 (MONO 1).

To use only CH2, choose monaural 2 (MONO 2).

These setting can also be made when using the analog inputs.

6 Press FUNCTION C [Att 1] or D [Att 2] and use the operation dial to adjust the digital input levels.

[Att 1] lets you adjust the digital input level for CH 1.

[Att 2] lets you adjust the digital input level for CH 2.

Press FUNCTION C or D twice to link the parameters and adjust both digital input levels at the same time.

See pages 9 and 10 for details regarding the input level.

7 Press FUNCTION E [EMPHA] and use the operation dial to select the de-emphasis mode.

"Auto" activates de-emphasis automatically according to the type of digital signal being input.

"On" de-emphasizes all signals input through the DIGITAL I/O jack.

"Off" turns de-emphasis off and does not alter signals input through the DIGITAL I/O jack.

See page 10 for details on the emphasis function.

Note

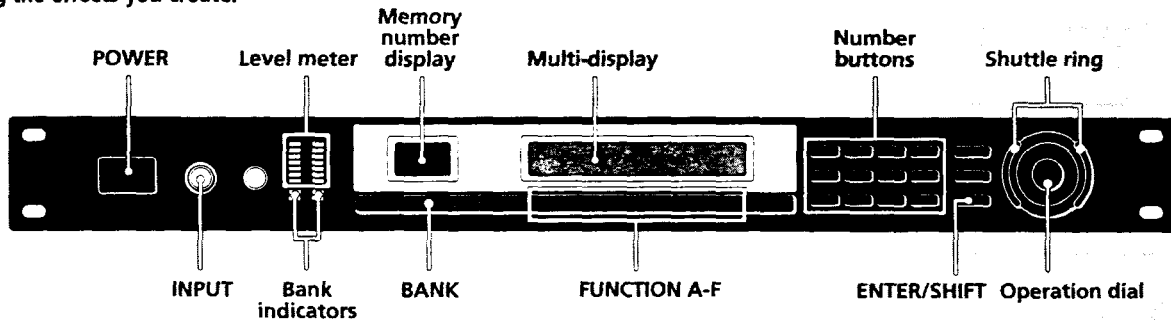
This unit's digital input only accepts signals with either 44.1 kHz or 48 kHz sampling frequencies. It cannot be used with 32 kHz signals.

Choosing an Effect

Recalling Effects from the Memory

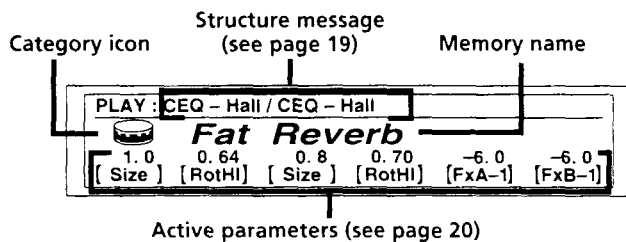
The effector comes with 198 different effects stored in the preset memory as well as a 198 effect memory capacity for storing the effects you create.

You can use the following procedure to select effects from either the preset memory or the user memory banks.



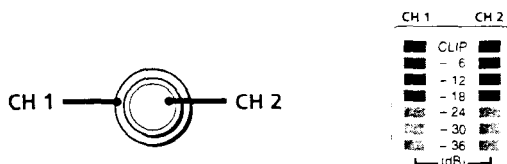
1 Press POWER to turn on the power.

The PLAY screen is displayed.



2 Turn INPUT to adjust the analog input levels (for digital levels, see page 13).

If the CLIP indicators light, the input level is set too high. Be sure to set the input level correctly since it has a direct relationship to the quality of the effects (see page 10 for details).

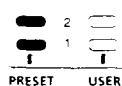


3 Press BANK to select the memory bank containing the effect you want (PRESET/USER 1 or 2).

Only the bottom indicator lights for PRESET or USER bank 1.



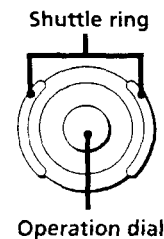
Both the top and bottom indicators light for PRESET or USER bank 2.



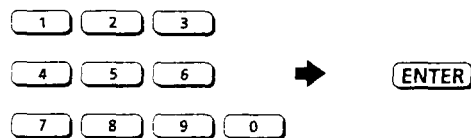
PRESET banks 1 and 2 hold preset effects.
USER banks 1 and 2 are for user memory.

4 Select the effect you desire (1-99).

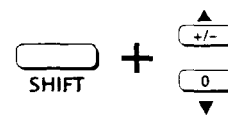
To select effects using the operation dial/shuttle ring, rotate the dial or ring to display the number of the effect you desire.



To select effects using the number buttons, input the number of the effect you want, then press ENTER. (If you press the wrong number, input the number again before pressing ENTER.)



To select effects using the arrow buttons, hold down SHIFT and press either ▲ or ▼ until the number you desire appears in the display.



Before you turn on the connected components

Be sure to turn the volume level down to avoid an unexpected output of massive volume.

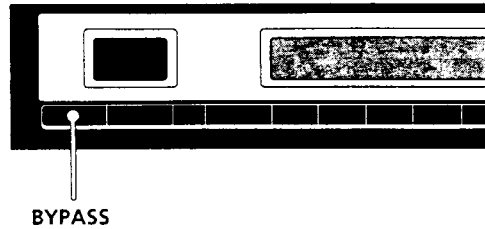
To change effect parameters from the PLAY screen

See "Editing in PLAY Mode (direct edit)" on page 20.

Outputting Without Effects (BYPASS/MUTE)

The effector comes with two different bypass modes, Bypass and Mute. Therefore, you can use the BYPASS button to cut output of the original sound or to output the original sound without effects depending on which bypass mode you select.

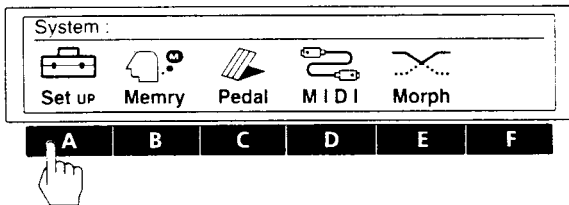
Once you set the BYPASS mode, just press BYPASS to activate Bypass or Mute. Press again to cancel the bypass or mute.



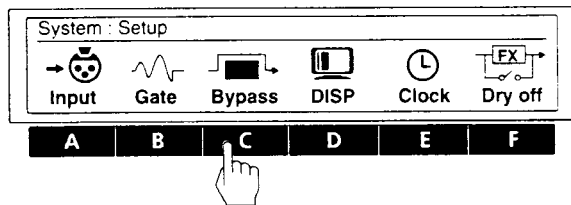
Choosing the bypass mode

1 Press SYSTEM.

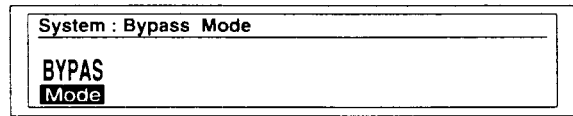
2 Press FUNCTION A to choose "Set Up."



3 Press FUNCTION C to choose "Bypass."



4 Use the operation dial to select BYPAS or Mute.



select	when
BYPAS	you want to output the original signal without adding any effects. Only the original signal is output (see "Bypass and Mute" on page 11).
Mute	you want to completely cut the sound output from the effector (including the input signal). We especially recommend using mute when connecting the effector in a send-return loop with a mixer (as shown on page 12).

Press EXIT a few times to return to the PLAY screen.

Choosing an Effect

Morphing

When the structure is set to [MORPH] (see page 8 for details on the system structure, see page 19 to change the structure), the effector creates a seamless change between effects when you switch to other memory numbers whose structures are also set to [MORPH].

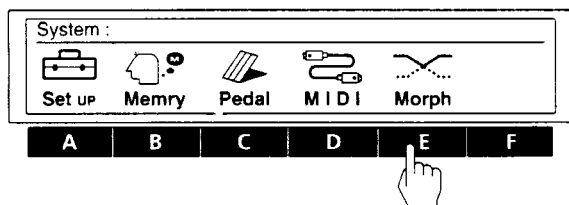
Note

The effector does not respond to any commands (including MIDI) during the morphing process. It will not respond until the preset morphing time has elapsed (see below).

Setting the morphing time and curve

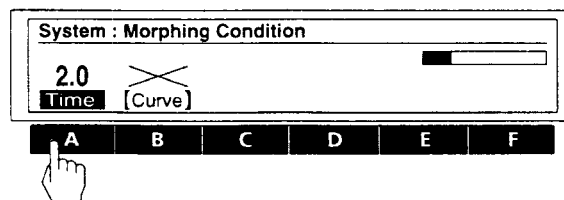
1 Press SYSTEM.

2 Press FUNCTION E to select "Morph."

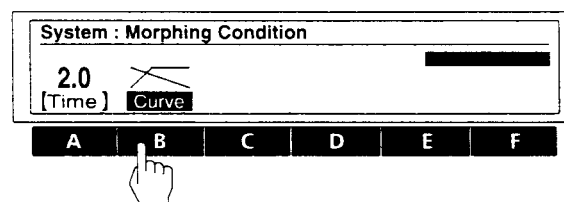




3 Press FUNCTION A [Time] and use the operation dial to set the morphing time.

The morphing time is the length of time from the beginning to the end of the morphing process. The effector will not respond to any commands (including MIDI) during this period.



4 Press FUNCTION B [Curve] to select the morphing curve.



-  Provides a gradual transition to the next sound.
-  Brings the next sound in quickly while the first sound fades out.

Note

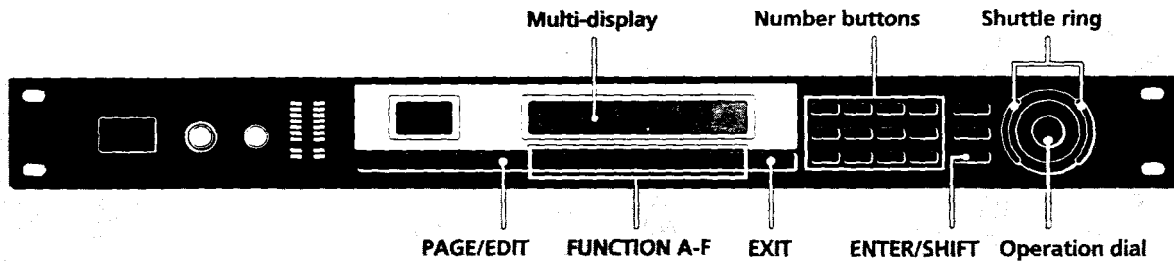
You cannot set the morphing time and curve independently for each effect.

Processing Effects (EDIT)

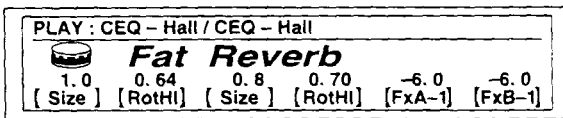
Changing Effect Parameters

The effector comes with 198 different effects stored in the preset memory as well as a 198 effect memory capacity for storing the effects you create by altering parameter values.

Use the following procedure to create original effects by editing the effects stored in the preset memory banks.

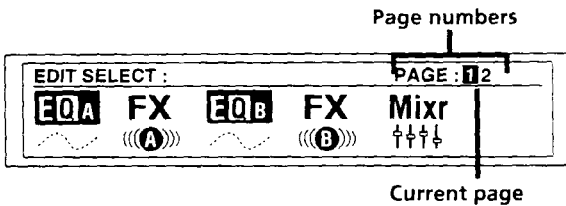


1 Choose an effect.



2 Press EDIT/PAGE.

The EDIT SELECT screen appears in the display.

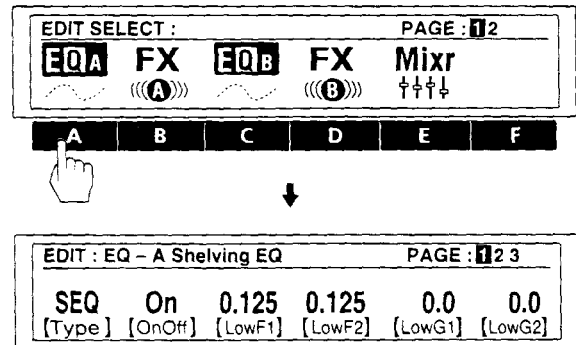


The numbers in the upper right corner of the display indicate the number of pages (basic screens) in the current block. The number in the black square indicates the current page.

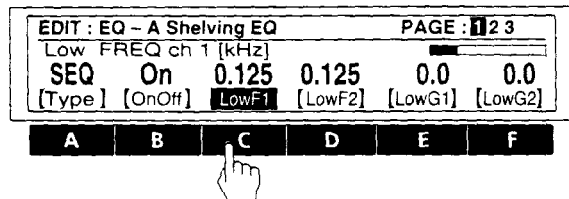
Press EDIT/PAGE again to switch to the next page.
 Press EDIT/PAGE while holding down ENTER/SHIFT to page backwards.

3 Use the FUNCTION buttons (A-F) to choose the block you want to change.

The screen for the chosen block appears in the display. For example, pressing FUNCTION A selects "EQ A" and the EDIT: EQ A screen appears (the example below shows a shelving equalizer).



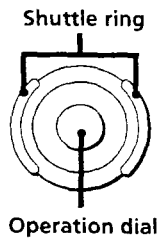
4 Use the FUNCTION buttons (A-F) to select the parameter you want to change.



(Continued)

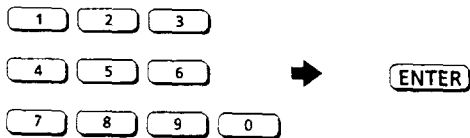
Processing Effects (EDIT)

- 5 Turn the operation dial to choose the setting you desire.

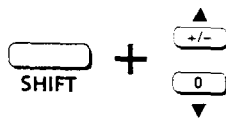


To change numerical values

Use the number buttons and ENTER to input the value you want directly. If you press the wrong number, input the number again before pressing ENTER.



To change numerical values using the arrow buttons, hold down SHIFT and press either ▲ or ▼ until the value you desire appears in the display.



To change another parameter on the same page of the same block

Repeat steps 4 and 5 above.

To change a parameter on a different page of the same block

Press PAGE/EDIT and follow steps 4 and 5 above.

To make changes to another block in the same effect

Press EXIT to return to the EDIT SELECT: screen, then follow steps 2 through 4 above.

To return to the PLAY screen after changing parameters

Press EXIT a few times.

Changes made to the parameter settings are replaced by the original settings when you select another effect from the memory. To save the new parameter settings, use the SAVE function (page 22).

To return to the original parameter settings after making changes which have not yet been saved

Press EXIT a few times to get to the PLAY screen, then select another effect from the memory. The settings for the previous effect return to the original values automatically.

Convenient Ways to Edit

To change the same parameter for CH1 and CH 2 at the same time (LINK)

Press the FUNCTION button for the parameter you want to change twice. The characters for the other channel's parameter also reverse and you can adjust both parameters at the same time.

Tapping in a parameter setting (Tap Tempo)

Certain parameters, like Delay Time, can be set by tapping on the ENTER button. After choosing the parameter you want to set, press the ENTER button repeatedly to tap in the tempo you desire. The processor measures the timing of the last two taps and sets the parameter accordingly.

This function can only be used with parameters whose parameter name display is followed by an asterisk (*).

Comparing Effect Parameters

Press BANK/COMPARE while editing an effect to compare the sound of the current parameter settings with the sound of the original, unedited effect.

Press BANK/COMPARE or EXIT to return to the current parameter settings.

Copying Effect Parameters

In EDIT mode, you can copy the parameter settings from an effect block in a given USER or PRESET memory to the same kind of effect block in the current USER memory. For example, you can copy the EQA parameter settings from another USER (or PRESET) memory number into the EQA (or EQB) block of the USER memory number you are currently editing.

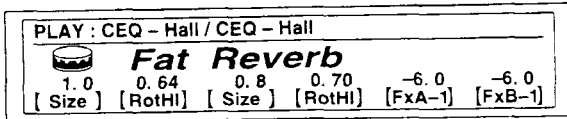
- 1 Follow steps 1 through 3 on the previous page to select the block (e.g. EQA) you want to copy to.
- 2 Press FUNCTION A [Type] twice.
Confirmation for entering the "parameter copy" screen appears in the display. (Pressing [Type] twice during another edit operation will also activate this function.)
Press FUNCTION F [Yes] to proceed.
Press FUNCTION A [No] to cancel and return to the EDIT: mode.
- 3 Use FUNCTION button A [MEM#] to select the memory number you want to copy from.
- 4 Use FUNCTION button B or C to select the effect block you want to copy the parameters from.
- 5 Press FUNCTION F [EXEC] to copy the parameter settings from the effect block you selected in step 4.

To copy an entire effect, see page 23.

Changing the Structure

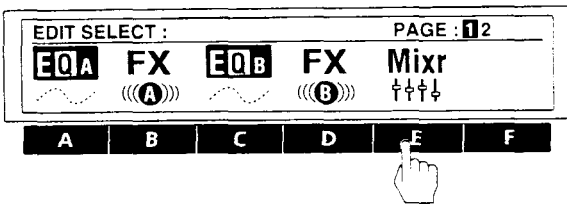
The effector contains two main effect blocks which perform signal processing to add effects to the incoming signals. You can produce different sounds by changing the structure (configuration) of these two blocks (see page 8 for details).

1 Choose the effect you want to edit.

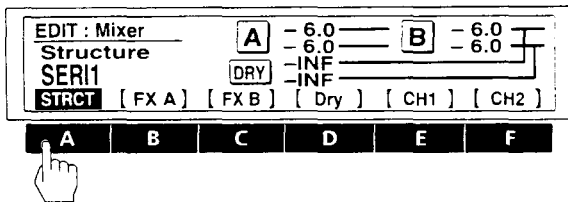


2 Press EDIT/PAGE.

3 Press FUNCTION E to choose "Mixr."



4 Press FUNCTION A [STRCT].

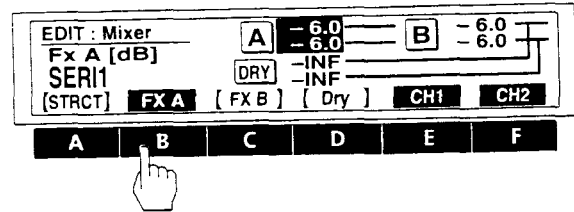


5 Turn the operation dial to choose the structure you desire.

SERI 1 (serial processing from FX A to FX B)
 SERI 2 (serial processing from FX B to FX A)
 PARA (parallel processing of FX A and FX B)
 DUAL (processes CH 1 into FX A and CH 2 into FX B)
 MORPH (morphing, see page 16)

See pages 8 and 9 for descriptions of each structure.

6 Use FUNCTION B [FX A], C [FX B], or D [Dry], if you want to change the output levels.



Press FUNCTION E or F after choosing FX A, FX B, or Dry to adjust the levels for each channel independently.

7 Turn the operation dial to choose the setting you desire.

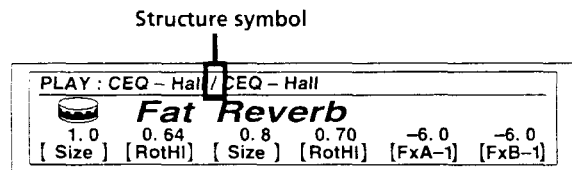
See page 10 for additional information regarding the output levels.

Press SAVE to store the new structure settings (see page 22).

Press EXIT a few times to return to the play screen.

Checking the Structure in PLAY Mode

The symbol in the center of the title bar changes according to the structure of the effect.



Effect names dimmed in the PLAY: bar are effects that are currently set to [OFF].

symbol	structure
>	SERI 1 (serial 1) FX A → FX B
<	SERI 2 (serial 2) FX B → FX A
/	PARA (parallel) FX A + FX B
:	DUAL (dual) FX A (ch 1) + FX B (ch 2)
No Block B	MORPH (morphing) FX A → next memory

See pages 8 and 9 for descriptions of each structure.

Processing Effects (EDIT)

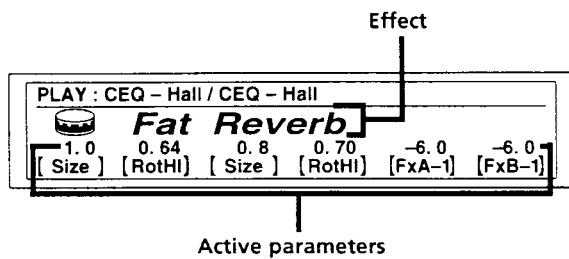
Editing in PLAY Mode (direct edit)

With direct edit you can edit up to 6 different parameters directly from the PLAY screen. These parameters are called Active Parameters.

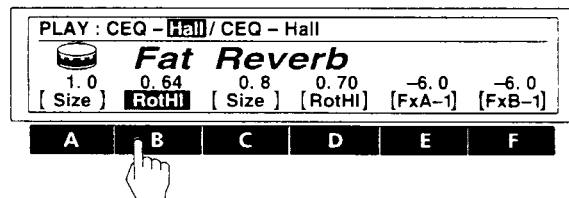
The following steps show you how to edit from the play screen once you've designated the Active Parameters. To designate Active Parameters, see "Selecting the Active Parameters" below.

1 Choose an effect from the memory banks.

The parameters available for direct editing (Active Parameters) appear directly above their corresponding FUNCTION button.



2 Press the FUNCTION button (A-F) of the parameter you want to adjust.



To adjust parameters not displayed in the PLAY screen, see "Changing Effect Parameters" on page 17.

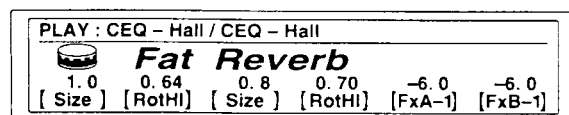
3 Use the operation dial or shuttle ring to adjust the parameter.

When changing numerical values, you can use the number buttons to input the value directly, or hold SHIFT and press ▲ or ▼ to change the value one unit at a time.

Selecting the Active Parameters

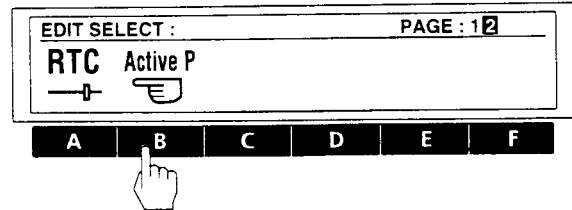
The following steps show you how to select the parameters that will appear in the PLAY screen for direct editing.

1 Choose an effect from the memory banks.



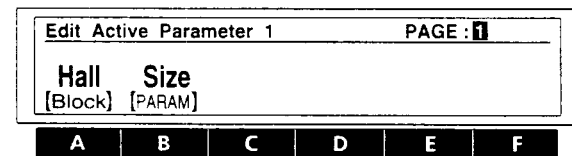
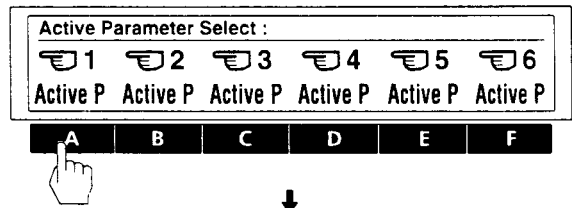
2 Press PAGE/EDIT twice.

3 Press FUNCTION B to choose "Active P."



4 Press a FUNCTION button (A-F) to choose a location (1-6).

Active P1-Active P6 correspond to FUNCTION buttons A-F respectively. (e.g., FUNCTION B is used to select Active P2 from the PLAY screen.)



5 Press FUNCTION A [Block] and use the operation dial to select the effect block containing the parameter you want to appear on the PLAY screen.

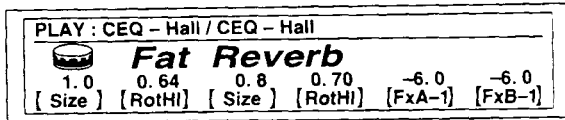
6 Press FUNCTION B [PARAM] and use the operation dial to select the parameter that will appear on the PLAY screen.

Press EXIT a few times to return to the PLAY screen.

Setting the Real Time Control (RTC)

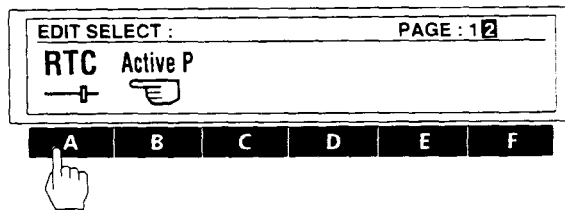
By using MIDI controls, such as dampers and modulation wheels, you can control various characteristics of an effect in real time. Since control conditions vary for each type of effect, control assignments are made separately for each effect block parameter in the RTC block. The effector is provided with 6 MIDI RTC channels, each carrying independent control source and destination (parameter) information.

1 Choose an effect from the memory banks.

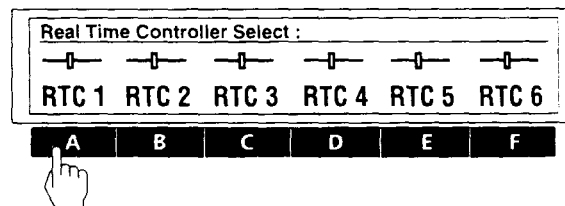


2 Press PAGE/EDIT twice.

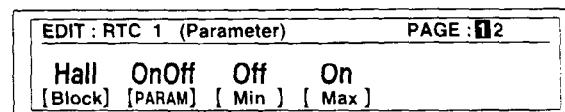
3 Press FUNCTION A to choose "RTC."



4 Use the FUNCTION buttons (A-F) to choose an RTC channel (1-6).



5 Use page 1 to specify the parameter you want to control.



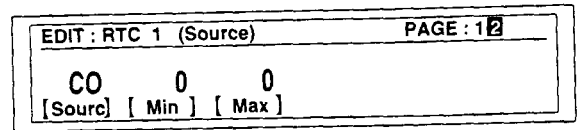
[Block]: selects the block to be controlled, select OFF if you don't want to use that RTC channel.

[PARAM]: specifies the parameter to be controlled from the selected block.

[Min]: specifies the minimal value of the parameter's adjustable range.

[Max]: specifies the maximal value of the parameter's adjustable range.

6 Press PAGE/EDIT and use page 2 to specify kind of controller you will use.



[Sourc]: selects the control source.

C0-C31 : To use a MIDI control change number.

C64-C120 : To use a MIDI control change number.

Note N : To use a note number

Note V : To use note velocity (Note Off is obtained by setting note velocity to 0.)

BENDR : To use a pitch bender

CH-PR : To use channel pressure

M.CLK : To use the MIDI clock (tempo display) as a control source. Settings can be made within the range of 30 to 250.

PEDL 1 : To use pedal 1 (Be sure to select "Pedal" on the System: Pedal screen, page 25).

PEDL 2 : To use pedal 2 (Be sure to select "Pedal" on the System: Pedal screen, page 25).

[Min]: specify the minimal value of the control source's adjustable range.

[Max]: specify the maximal value of the control source's adjustable range.

Press EXIT a few times to return to the PLAY screen.

EXAMPLE

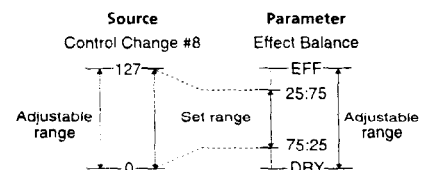
Suppose you want to set RTC 1 to use the MIDI control change number 8 (balance control) to change the Hall Reverb effect balance from 75:25 to 25:75 :

EDIT : RTC 1 (Parameter) screen (step 5) :

Set [Block] to "HALL" and set [PARAM] to "E. BAL" (effect balance). Then set [Min] to "75:25" and [Max] to "25:75."

EDIT : RTC 1 (Source) screen (step 6) :

Set [Source] to "C8" (control 8), [Min] to "0" and [Max] to "127."



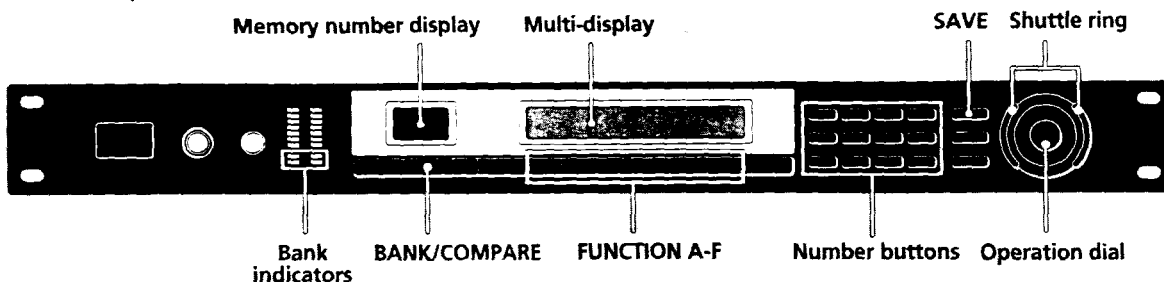
Now you can adjust the effect balance from 75:25 to 25:75 when you adjust control change number 8 (balance control) from 0 to 127.

Saving Processed Effects (SAVE)

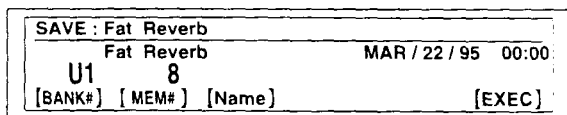
Saving an Effect

Effects created by changing the parameter values with the edit function can be stored in one of the two USER memory banks for later use. Each USER bank has room for 99 effects, so you can store up to 198 different effects

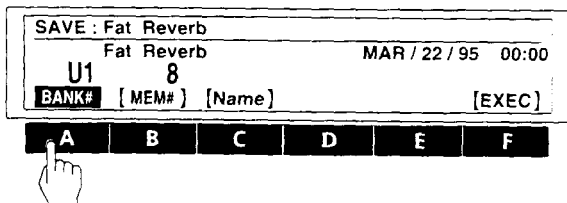
The following procedure shows you how to store an effect in one of the USER memory banks.



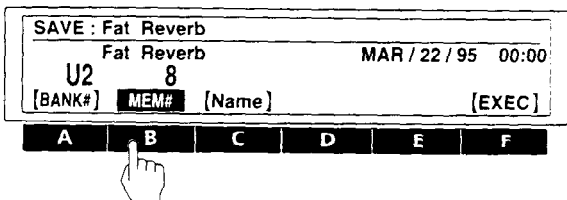
1 Press SAVE.



2 Press FUNCTION A [BANK#] and use the operation dial to select the user memory bank (USER 1 or USER 2) where you want to save the effect.

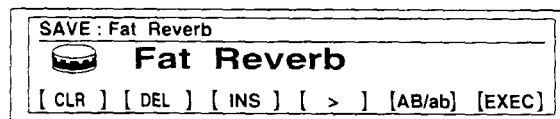


3 Press FUNCTION B [MEM#] and use the operation dial or number buttons to select the memory number (1-99) where you want to save the effect.



4 Press FUNCTION C [Name].

The Save: name screen appears in the display.



Use the	to																		
Operation dial (shuttle ring)	select icons and characters.																		
Number buttons	select characters. The display changes as shown below each time you press each button:																		
	<table border="0"> <tr><td>1</td><td>1 → A → B → C → 1</td></tr> <tr><td>2</td><td>2 → D → E → F → 2</td></tr> <tr><td>3</td><td>3 → G → H → I → 3</td></tr> <tr><td>4</td><td>4 → J → K → L → 4</td></tr> <tr><td>5</td><td>5 → M → N → O → 5</td></tr> <tr><td>6</td><td>6 → P → Q → R → 6</td></tr> <tr><td>7</td><td>7 → S → T → U → 7</td></tr> <tr><td>8</td><td>8 → V → W → X → 8</td></tr> <tr><td>9</td><td>9 → Y → Z → → 9</td></tr> </table>	1	1 → A → B → C → 1	2	2 → D → E → F → 2	3	3 → G → H → I → 3	4	4 → J → K → L → 4	5	5 → M → N → O → 5	6	6 → P → Q → R → 6	7	7 → S → T → U → 7	8	8 → V → W → X → 8	9	9 → Y → Z → → 9
1	1 → A → B → C → 1																		
2	2 → D → E → F → 2																		
3	3 → G → H → I → 3																		
4	4 → J → K → L → 4																		
5	5 → M → N → O → 5																		
6	6 → P → Q → R → 6																		
7	7 → S → T → U → 7																		
8	8 → V → W → X → 8																		
9	9 → Y → Z → → 9																		
FUNCTION A [\leftarrow /CLR]	move the cursor backward. When the cursor is all the way to the left, [CLR] (clear) appears instead of [\leftarrow] and lets you erase the entire name.																		
FUNCTION B [DEL]	delete the character at the cursor position.																		
FUNCTION C [INS]	insert a space at the cursor position.																		
FUNCTION D [\rightarrow]	move the cursor forward.																		
FUNCTION E [AB/ab]	switch between capital or small letters.																		
FUNCTION F [EXEC]	execute the save operation.																		

Use EXIT to go back to the previous screen if necessary.

5 Press FUNCTION F [EXEC] to execute the save operation.

The DISPLAY screen appears in the following manner:

Protecting USER Memory

This function locks the contents of the specified USER memory number so that new effects cannot be saved to that number and the contents of that memory number cannot be deleted or written over by a copy command.

- 1 Press SYSTEM.
- 2 Press FUNCTION B to choose "MEMRY."
- 3 Press FUNCTION E to choose "PROTECT."
The operation dial or shuttle ring selects the memory number.
FUNCTION F turns protection on or off.

Organizing USER Memory

Since each of the USER memory banks can hold up to 99 effects, you may find it difficult to keep track of where certain effects are located. The following procedures show you how to copy, move, swap, and erase effects in the user memory so that you can organize the effects into a comfortable configuration.

Copying a memory file (Copy)

This function lets you copy the contents of a selected USER or PRESET memory number to a specified USER memory number.

- 1 Press SYSTEM.
- 2 Press FUNCTION B to choose "MEMRY."
- 3 Press FUNCTION A to choose "Copy."
FUNCTION A [SOURC] selects the source memory number to be copied.
FUNCTION B [DEST] specifies the destination.
FUNCTION F [EXEC] executes the copy operation.

Moving USER memory (Move)

This function lets move the contents of a specified USER memory number to another USER memory number.

- 1 Press SYSTEM.
- 2 Press FUNCTION B to choose "MEMRY."
- 3 Press FUNCTION B to choose "Move."
FUNCTION A [SOURC] selects the source memory number to be moved.
FUNCTION B [DEST] selects the destination.
FUNCTION F [EXEC] executes the move operation.

Exchanging USER memory (XCHG)

This function lets you exchange the contents of two USER memory numbers.

- 1 Press SYSTEM.
- 2 Press FUNCTION B to choose "MEMRY."
- 3 Press FUNCTION C to choose "XCHG."
FUNCTION A [MEM1#] selects the first memory number to be exchanged.
FUNCTION B [MEM2#] selects the second memory number to be exchanged.
FUNCTION F [EXEC] Executes the exchange operation.

Deleting USER memory (DEL)

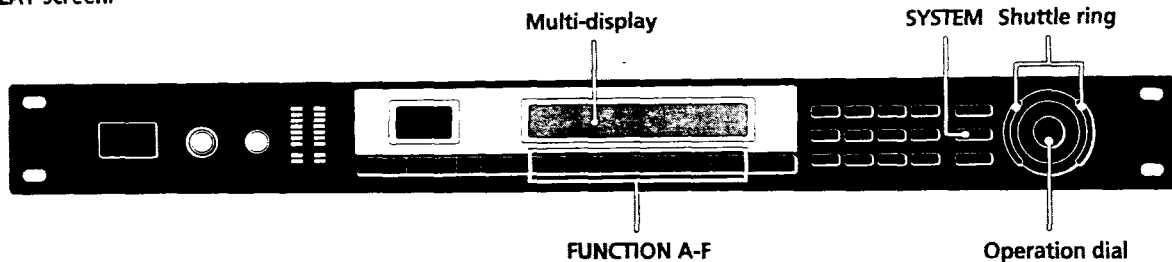
This function lets you delete the contents of a USER memory number.

- 1 Press SYSTEM.
- 2 Press FUNCTION B to choose "MEMRY."
- 3 Press FUNCTION D to choose "DEL."
The operation dial or shuttle ring selects the memory number.
FUNCTION F [EXEC] executes the delete operation.

Setting the System Environment

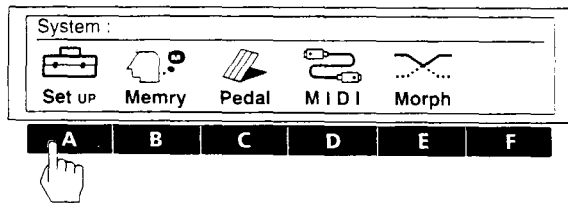
In the system mode lets you set up the effector's operating environments. To go back to the previous screen during setup, press EXIT once. To return to the play mode after making adjustments, press EXIT a few times until you reach the PLAY screen.

The following steps describe how to make changes in the system setup.

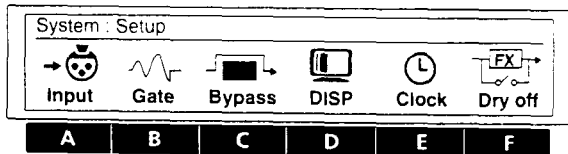


1 Press SYSTEM.

2 Press FUNCTION A to select "Set Up."



3 Use FUNCTION buttons (A-F) to choose the items you want to adjust.



4 Use FUNCTION buttons (A-F), operation dial, shuttle ring, number buttons, or the SHIFT and ▲ and ▼ buttons to make the adjustments you desire.

Setting the Clock (Clock)

The clock function lets you set the time and date of the effector's built in clock. Once the clock is set, the date and time are automatically stored in the user memory when you save a processed effect.

- 1 Press SYSTEM.
- 2 Press FUNCTION A "Set Up."
- 3 Press FUNCTION E "Clock."
 - FUNCTION A [Month] sets the Month.
 - FUNCTION B [Day] sets the Day.
 - FUNCTION C [Year] sets the Year.
 - FUNCTION D [Hour] sets the Hour.
 - FUNCTION E [MIN] sets the Minute.
 - FUNCTION F [Start] starts the clock.

Setting the Display Mode

The display function lets you adjust the display mode and display contrast.

- 1 Press SYSTEM.
- 2 Press FUNCTION A "Set Up."
- 3 Press FUNCTION D "DISP."
 - FUNCTION A [Mode] selects the display mode.
 - Name : displays the name of the memory file in large characters and the Active Parameter settings in small characters.
 - Value : displays the memory name in small characters and the Active Parameter settings in large characters.
 - FUNCTION B [LCD] adjusts the contrast of the display.

Setting the Noise Gate (Gate)

Use the noise gate function when the source of the input signal generates a lot of noise. Running the input signal through the noise gate before processing reduces noise when no sound is being output.

- 1 Press SYSTEM.
- 2 Press FUNCTION A "Set Up."
- 3 Press FUNCTION B "Gate."

FUNCTION A [ATK], sets the attack time (the rate at which the gate opens).

FUNCTION B [REL], sets the release time (the rate at which the gate closes).

FUNCTION C [THR], sets the threshold level (the level at which the gate will close). The larger the value, the larger the signal that will enter the gate.

Cutting the Direct Sound (Dry On/Off)

This setting lets you cut the direct sound and output only the sound of the effect, regardless of the MIXER block's DRY LEVEL setting. When using this unit is connected to a mixer in a send/return loop, as shown on page 12, be sure cut the direct sound.

- 1 Press SYSTEM.
- 2 Press FUNCTION A "Set Up."
- 3 Press FUNCTION F "Dry On/Off."

The operation dial selects the dry mode.

OFF : forcibly cuts the direct level (to $-\infty$) regardless of the direct level setting.

PGM : the direct level determined by the value stored in the mixer block of each effect.

Setting up the Pedal Parameters

Pedals connected to the PEDAL 1 and/or PEDAL 2 jacks on the rear panel can be used to control the functions listed below.

- 1 Press SYSTEM.
- 2 Press FUNCTION C "Pedal."
- 3 Press FUNCTION A or B to choose "Pedal 1" or "Pedal 2."

FUNCTION A [Type] sets the type of pedal function.

MEM +/MEM - : changes memory numbers up/down.

Bank +/Bank - : changes bank numbers up/down.

TBL +/TBL - : changes the table numbers specified in the pedal program table up/down.

Bypass : sets the pedal to work as the bypass switch

RTC : sets the pedal to control the parameters set in RTC (see page 21).

FUNCTION B [MIN] lets you input the setting for when the pedal is in the "up" position (minimum).

FUNCTION C [MAX] lets you input the setting for when the pedal is in the "down" position (maximum).

FUNCTION D [Curve] lets you select the MIN to MAX transition curve.

FUNCTION E [TBL#] lets you select the pedal program table numbers (1-10) when you set FUNCTION A to TBL+/- .

FUNCTION F [MEM#] lets you select the memory bank and memory number that will respond to the table number set at FUNCTION E.

Other Settings

To set "Bypass," see page 15.

To set "Input," see page 13.

To set the MIDI functions see pages 21 and 26.

To organize the user memory, see page 23.

To set the morphing function, see page 16.

Additional Information

Troubleshooting

If this unit does not operate as expected, the problem may simply be an oversight, a disconnected cable or a setting error. Before calling a service technician, compare the symptoms of the problem with those listed below to see if you can correct the problem yourself.

No sound is heard, or the sound is small.

- ➔ Press BYPASS to cancel mute.
- ➔ When inputting analog signals, check to see if the INPUT knob is set to the appropriate level.
- ➔ When inputting digital signals, check the Input levels in the System: Setup.
- ➔ Check that all the cables are connected correctly.
- ➔ Make sure the appropriate input mode is selected on the System: Setup Input screen. You cannot input analog signals if the input mode is set to "DIGTL."
- ➔ Make sure the effect levels in the mixer block are not set excessively low.
- ➔ Check the volume of the connected amplifier or mixer.

The sound is not modified by the selected effect.

- ➔ Press BYPASS to cancel bypass.
- ➔ Is the effect set to "OFF"?

The morphing effect does not work.

- ➔ Make sure to SAVE the effect after changing the structure to [MORPH].
- ➔ Make sure the structures of all the effects you want to morph between are set to [MORPH].

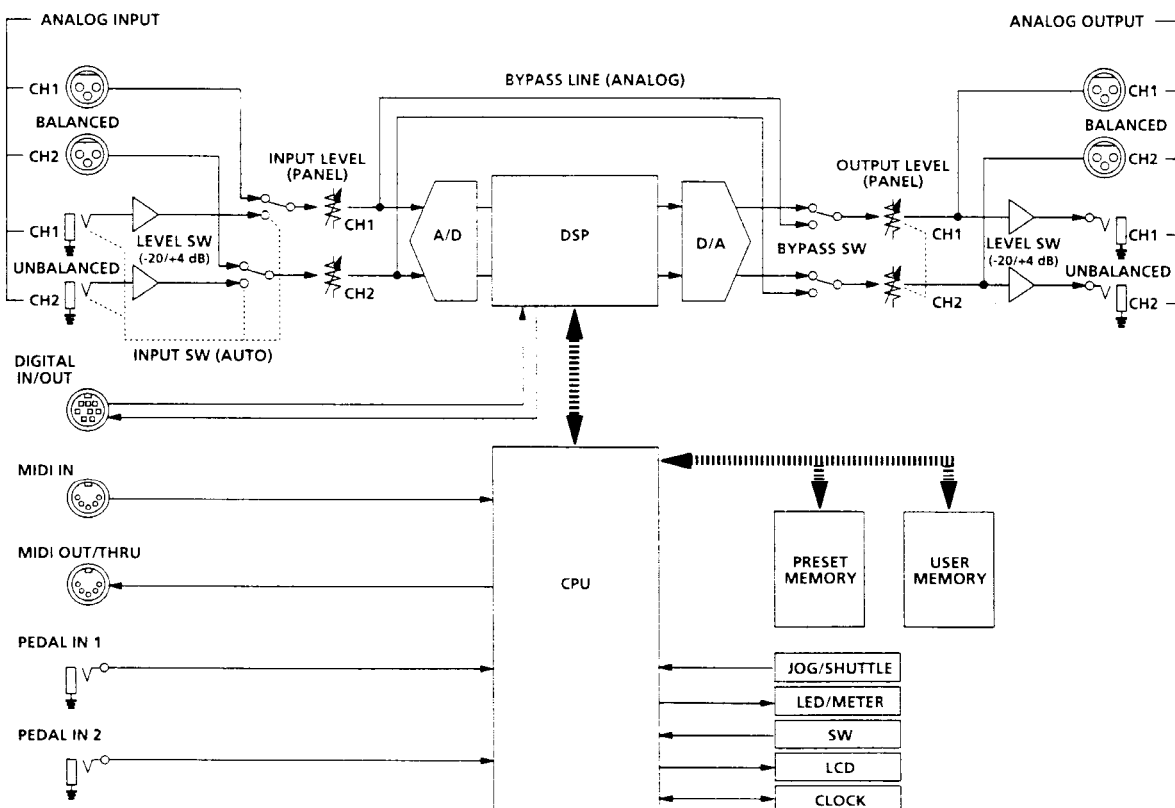
The input level CLIP indicator lights.

- ➔ Turn INPUT to the left to reduce the input level.
- ➔ Reduce the output level of the source component.
- ➔ Set the INPUT level selector switch to +4 dB and use the INPUT adjustment knob to re-adjust the input level.

MIDI operations cannot be carried out.

- ➔ Make sure the MIDI receive channel matches the transmit channel of the MIDI device.
- ➔ Make sure the MIDI control number is set correctly.
- ➔ Make sure the MIDI cable is connected securely.

Block Diagram



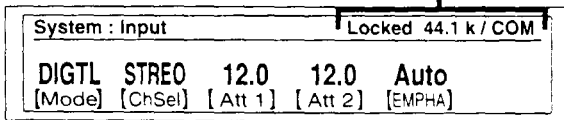
Input Settings and the Input Signal

System: Input setting	Input Connections	Sampling Frequency/ ACTIVE IN TERMINALS
ANALOG	ANALOG and DIGITAL	fs: 48 kHz (internal clock)/ ANALOG IN
DIGITAL	DIGITAL and ANALOG	fs: determined by connected equipment (external clock)/ DIGITAL IN
	ANALOG only	fs: 48 kHz (internal clock)/ ANALOG IN
Both	ANALOG and DIGITAL	fs: determined by connected equipment (external clock)/ DIGITAL IN + ANALOG IN
	ANALOG only	fs: 48 kHz (internal clock)/ ANALOG IN

Sampling Frequency Display

When a usable digital signal is input through the digital audio interface the relevant information appears in the System: Setup "Input" display.

Sampling frequency display



44.1k or 48k represents the sampling frequency of the input signal (44.1 kHz and 48 kHz respectively).

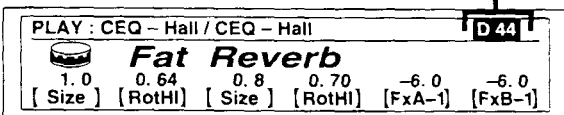
COM or PRO represents the interface cable being used.

COM : RK-V77S (consumer use, SPDIF)

PRO : RK-V77A (professional use, AES/EBU)

When the Input is set to either "DIGTL" or "Both," and a usable digital signal is being input, the sampling frequency is also displayed on the PLAY screen.

Sampling frequency display



D44 : 44.1 kHz

D48 : 48 kHz

Digital I/O Terminal Chart

AES/EBU type

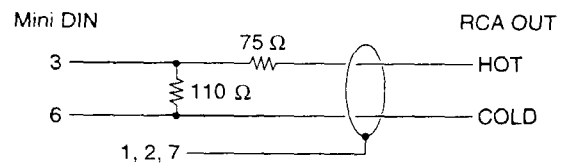
	XLR type	Mini DIN (rear panel)
IN	HOT: 2	5
	COLD: 3	8
	GND: 1	1, 2, 4, 7
OUT	HOT: 2	3
	COLD: 3	6
	GND: 1	1, 2, 4, 7

SPDIF type

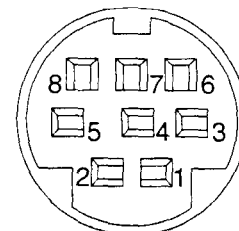
	RCA type	Mini DIN (rear panel)
IN	HOT	5
	COLD	8
OUT*	HOT	3
	COLD	6

1, 2, and 7 are shorted
4 is open

* Note



Mini DIN terminal



Additional Information

Restoring the Original Factory Settings

You can restore the entire user memory and all system settings to the original factory conditions.

- 1 Turn off the power.
- 2 Hold down SAVE and ENTER, and turn the power back on. "Initialized" appears in the display and the unit is reset to the original factory settings.

Note

All user memory data is rewritten by the original factory data. Before restoring the original factory settings, be sure to save all necessary data (in a MIDI data file, etc.).

Specifications

A/D Converter	1 Bit / 64 times oversampling (24 bit resolution)		
D/A Converter	Advanced PULSE D/A converter (20 bit resolution)		
Sampling Frequency	Analog input	48 kHz	
	Digital input	44.1/48 kHz (auto-switching)	

Analog Input

Jack type	reference input level	maximum input level	input impedance	circuit type
XLR-3-31	+4 dBs	+21 dBs	20 kilohms	balanced
PHONE	-20 dBs or +4 dBs	-2 dBs or +21 dBs	50 kilohms	unbalanced

0 dBs = 0.775 Vrms

XLR-3-31 connectors (1 : GND 2 : HOT 3 : COLD)

Analog Output

Jack type	reference output level	maximum output level	load impedance	circuit type
XLR-3-32	+4 dBs	+21 dBs	600 ohms or more	balanced
PHONE	-20 dBs or +4 dBs	-2 dBs or +21 dBs	10 kilohms or more	unbalanced

0 dBs = 0.775 Vrms

XLR-3-32 connectors (1 : GND 2 : HOT 3 : COLD)

Digital Input/Output Terminal type: 8 pin mini DIN
Use optional cables RK-V77A (for AES/EBU) or RK-V77S (for SPDIF)

Pedal Input Terminal type: Standard PHONE type
(assignable control terminals x 2)

MIDI Input/Output Jack: 5 pin DIN (IN x 1, OUT / THRU x 1)
OUT / THRU can be set to either OUT or THRU

Frequency Response	10 – 22 kHz +0, -1.0 dB
Signal-to-Noise Ratio	Greater than 97 dB
Dynamic Range	Greater than 97 dB
Distortion	Less than 0.003% (1 kHz)
Memory	Preset 198 locations (99 location preset bank x 2) User 198 locations (99 location user bank x 2)
Power Source	AC 120 V, 60 Hz AC 230 V, 50/60 Hz
Power Consumption	23 W (120 V) 25 W (230 V)
Dimensions	482 x 44 x 320mm (WxHxD not including projections)
Mass	approx. 4.7 kg

Design and specifications subject to change without notice.

List of Effects / Liste des Effets / Liste der Effekte

Effect Category		Effect Number*	Effect Type		Explanation	Parameter Definitions				
Catégorie d'Effet		Numéro d'Effet*	Type d'Effet		Explication	Définition de Paramètre				
Effektkategorie		Effektnummer*	Effekttyp		Erläuterungen	Funktion der Parameter				
EQ BLOCK	Equalization	EQ	1	PEQ	Parametric EQ	7	6			
			2	CEQ	Cut Off EQ	8				
			3	SEQ	Shelving EQ	9				
FX BLOCK	Reverb Effects	REVERB	1	Hall	Hall Reverb	15	10			
			2	Room	Room Reverb	17				
			3	Plate	Plate Reverb	19				
			4	GtREV	Gated Reverb	20	12			
			5	DcREV	Ducking Reverb	22	14			
			6	SpAMB	Spacious Ambience	23				
	Delay Effects	DELAY	7	Delay	Stereo Delay	29		24		
			8	DbDLY	Double Delay	31	25			
			9	MtDLY	Multi Tap Delay	33				
			10	TmDLY	Tempo Delay	35				
			11	LgDLY	Long Delay	37	27			
			12	MnDLY	Mono Delay	38				
			13	MdDLY	Modulation Delay	39				
			14	PpDLY	Pig Pong Delay	40				
			Filter Effects	DYNAMICS		15	HdDLY	Hold Delay	41	28
						16	PtDLY	Panpot Tap Delay	42	
	17	DmDLY				Dimension Delay	44			
	18	LIMIT				Limiter	53	46		
	FILTER				19	COMP	Compressor	54	47	
					20	DAL	DAL-1000 Limiter	55		
					21	DRIVE	Driver	56	48	
					22	M PEQ	Multiple PEQ	57	49	
					23	EXCIT	Dynamic Exciter	58		
					24	Wah	Wah	59		
					25	DyFIL	Dynamic Filter	60	50	
					26	AMP	Amp Simulator	61	51	
					27	SbGEN	Sub-harmonic Generator	62		
					28	BtAMB	Bottom Ambience	63	52	
	GATE			29	Gate	Gate	64	52		
				30	SIATK	Slow Attacker	65			

* Select [Type] and use the ten-key number buttons, followed by ENTER, to select an effect directly.

* Sélectionnez [Type] et utilisez les 10 touches numériques, suivies par ENTER, pour sélectionner directement un effet.

* Zur direkten Effektwahl die Option [Type] wählen, dann die Nummer mit den Nummerntasten eingeben und mit ENTER beenden.

Effect Category Catégorie d'Effet Effektkategorie		Effect Number* Numéro d'Effet* Effektnummer*	Effect Type Type d'Effet Effekttyp	Explanation Explication Erläuterungen	Parameter Definitions Définition de Paramètre Funktion der Parameter	
FX BLOCK	CHORUS	31	CHORS Stereo Chorus	75	66	
		32	BdCHO Band Chorus	76	67	
		33	DeCHO Deca Chorus	78		
		34	ENS Stereo Ensemble	80		
	FLANGER	35	FLNGR Stereo Flanger	81	68	
		36	BdFLN Band Flanger	83		
		37	SpFLN Step Flanger	85	70	
		38	TgFLN Triggered Flanger	86		
	PHASER	39	PHASR Stereo Phaser	87	71	
		40	TpPHS Triggred Phaser	89	72	
	PANNING	41	PAN Stereo Panning	91	73	
		42	HsPAN Hass Panning	92		
		43	TgPAN Triggered Panning	93	74	
	Pitch Shifting	PITCH	44	Pitch Stereo Pitch Shifter	96	94
			45	MtPCH Multi Pitch Shifter	97	
46			ItPCH Intelligent Pitch Shifter	98		
47			REVRs Reverse Shifter	99		
Other Effects	SOUND EFFECTS	48	DOPLR Doppler	108	100	
		49	RING Ring Modulator			
		50	VOC Vocoder			
	OTHER	51	Break Pitch Breaker	110	102	
		52	ROLLR Pitch Roller	111	103	
		53	ROTRY Rotary Speaker	112	104	
Combination Effects	COMBINATION	54	VoCNL Vocal Canceler	113	105	
		55	FREEZ Freeze	114	106	
		56	VB/TR Vibrato/Tremolo	115		
		57	DL+RV Delay + Reverb	117	107	
		58	CH+DL Chorus + Delay	119	118	
		59	CH+RV Chorus + Reverb	120		
		60	PT+DL Pitch + Delay	121		
		61	PT+CH Pitch + Chorus	122		
		123				

* Select [Type] and use the ten-key number buttons, followed by ENTER, to select an effect directly
 * Sélectionnez [Type] et utilisez les 10 touches numériques, suivies par ENTER
 * Zur direkten Effektwahl die Option [Type] wählen und ENTER beenden.

MULTI-EFFECT PROCESSOR DPS-V77

MIDI Implementation Chart / Tableau de mise en application MIDI / MIDI-Implementationstabelle

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	X X	1-16 1-16	Memorized
Mode	Default Messages Altered	X X *****	OMNI ON/OFF X	Memorized
Note Number:	True Voice	*****	○ 0-127	No sound *1
Velocity	Note ON Note OFF	X X	○ ○	*1
After Touch	Key's Ch's	X X	X ○	*1
Pitch Bend		X	○	*1
Control Change	0-31, 64-120	X	○	
Prog Change :	True#	X *****	○ 0-127	
System Exclusive		○	○	
Common	: Song Pos : Song Sel : Tune	X X X	X X X	
System Real Time	: Clock : Commands	X X	○ X	
Aux Messages	: Local ON/OFF : All Notes OFF : Active Sense : Reset	X X X X	X X X X	
Notes	*1 : Used as a RTC (Real Time Controller) input source.			

List of Effects / Liste des Effets / Liste der Effekte

		Effect Category Catégorie d'Effet Effektkategorie	Effect Number* Numéro d'Effet* Effektnummer*	Effect Type Type d'Effet Effekttyp	Explanation Explication Erläuterungen	Parameter Definitions Définition de Paramètre Funktion der Parameter
EQ BLOCK	Equalization	EQ	1	PEQ Parametric EQ	7	6
			2	CEO Cut Off EQ	8	
			3	SEQ Shelving EQ	9	
FX BLOCK	Reverb Effects	REVERB	1	Hall Hall Reverb	15	10
			2	Room Room Reverb	17	
			3	Plate Plate Reverb	19	
			4	GtREV Gated Reverb	20	12
			5	DcREV Ducking Reverb	22	
			6	SpAMB Spacious Ambience	23	
	Delay Effects	DELAY	7	Delay Stereo Delay	29	24
			8	DbDLY Double Delay	31	
			9	MtDLY Multi Tap Delay	33	25
			10	TmDLY Tempo Delay	35	
			11	LgDLY Long Delay	37	27
			12	MnDLY Mono Delay	38	
			13	MdDLY Modulation Delay	39	
			14	PpDLY Pig Pong Delay	40	28
			15	HdDLY Hold Delay	41	
			16	PtDLY Panpot Tap Delay	42	
			17	DmDLY Dimension Delay	44	
	Filter Effects	DYNAMICS	18	LIMIT Limiter	53	46
			19	COMP Compressor	54	
			20	DAL DAL-1000 Limiter	55	47
			21	DRIVE Driver	56	
		FILTER	22	MPEQ Multiple PEQ	57	48
			23	EXCIT Dynamic Exciter	58	
			24	Wah Wah	59	49
			25	DyFIL Dynamic Filter	60	
			26	AMP Amp Simulator	61	50
			27	SbGEN Sub-harmonic Generator	62	
			28	BtAMB Bottom Ambiercer	63	
		GATE	29	Gate Gate	64	52
	30		SIATK Slow Attacker	65		

- * Select [Type] and use the ten-key number buttons, followed by ENTER, to select an effect directly.
- * Sélectionnez [Type] et utilisez les 10 touches numériques, suivies par ENTER, pour sélectionner directement un effet.
- * Zur direkten Effektwahl die Option [Type] wählen, dann die Nummer mit den Nummerntasten eingeben und mit ENTER beenden.

SONY.**DPS-V77 Preset Memory Catalog**

Class	Memory No.	Preset Name	Algorithm			Description
			Block-A	Block-B	Struct	
Special Select	Bank1 1	Crystal Plate	Plate SEQ	DyFIL SEQ	S1 IL	An extremely bright plate with smooth expansion, matches a wide variety of sources.
	Bank1 2	Tight Chamber	Room	SEQ Room	S1 IL	A dual room configuration for a tight and powerful reflective ambience. Great for drums!
	Bank1 3	Boston Hall	MdDLY SEQ	Hall SEQ	S1 IL	Bright and rich sounding orchestra hall with medium decay, good for percussive instruments.
	Bank1 4	Room Distance	SpAMB	—	S1 IL	Provides a sense of room depth. Convenient for conveying the size of a room.
	Bank1 5	Mastering	SEQ LIMIT	DAL SEQ	S1 IL	Settings often used in CD mastering to add sound pressure and brightness.
	Bank1 6	London Symphony	MtPCH SEQ	Hall SEQ	S2 IL	Creates a heavy orchestral sound by pitchshifting feedback loops in octaves and unisons.
	Bank1 7	12-Stg Chorus	CHORS SEQ	Plate SEQ	S1 IL	Applies a short delay to emulate the sound of a 12 string guitar. Good for acoustic guitar or synth piano.
	Bank1 8	Crystal Keys	SEQ COMP	BdFLN SEQ	S2 IL	Sparkling band flanger for electric piano. Processes each frequency at a different rate, phase and level.
	Bank1 9	Panning Phaser	PHASR	HsPAN	S2 IL	This effect creates a sound that moves slowly with a fat and expansive phaser.
	Bank1 10	Pwr Amp Panner	PAN	AMP	S1 IL	A powerful panning effect using the amp simulator. Excellent for electric guitar or electric piano.
Hall Reverb	Bank1 11	Large Hall	MdDLY	Hall	S2 IL	Smooth, bright and subtle large hall with slow reverb and low level early reflections.
	Bank1 12	Small Hall	MdDLY	Hall	S2 IL	Similar to No. 11, but simulates a hall of smaller physical size.
	Bank1 13	Concert Hall	Hall	DmDLY	S1 IL	Uses dimension delay to create a dark hall with a 3D effect, ideal for orchestral sounds.
	Bank1 14	3D Church	Hall SEQ	DmDLY SEQ	S1 IL	Simulates a bright sounding church with a high ceiling and rich stone wall reflections.
	Bank1 15	3D Cathedral	Hall SEQ	DmDLY SEQ	S1 IL	Simulates a large, deep and dark cathedral. Particularly suitable for voices or organ.
	Bank1 16	Clr Cathedral	Hall SEQ	MdDLY SEQ	S2 IL	Large cathedral hall designed for ensembles, also good for chorus and organs.
	Bank1 17	Flyby Reverb	DeCHO	Hall	S2 IL	A slightly bizarre sound created by sending only the reverb to the Deca Chorus for panning.
	Bank1 18	Canyon Hall	Hall SEQ	Hall	S1 IL	Reverb with long echoes. For instruments with a slow attack, like flute, slow strings, or soft vocals.
	Bank1 19	Clear & Mellow	SEQ Plate	SEQ Hall	P IL	Combination of a clear plate to reduce low frequency resonance and a deep long hall reverb.
	Bank1 20	Back Stage	Hall CEQ	—	S1 IL	"Clouded" hall reverb. similar to being back stage at a concert.
Room Reverb	Bank1 21	NarrAte Booth	SEQ	SEQ Room	S1 IL	An incredibly transparent yet powerful room for narration, drums and rhythm sections.
	Bank1 22	Drum Booth	SEQ	SEQ Room	S1 IL	A powerful room with a slightly different character than No. 21.
	Bank1 23	Board Room	—	Room	S1 IL	A room constructed of wood and glass especially for drums. Gives a "drum booth" sound.
	Bank1 24	Power Room	—	SEQ Room	S1 IL	Deep and rich room reverb for drums.
	Bank1 25	Track A Room	Delay SEQ	Room	S1 IL	A large recording room with a deep and boomy analog tape sound, for guitars or drums.

Note : Block-A = EQ-A FX-A Block-B = EQ-B FX-B S1 = serial1 S2 = serial2 P = parallel

Class	Memory No.	Preset Name	Algorithm			Description
			Block-A	Block-B	Struct	
Room Reverb	Bank1 26	Tight 3D Room	Room	DmDLY	S1 IL	Room reverb with dimension delay, for a "rock band" sound, drums, and other instruments.
	Bank1 27	Power Chamber	Room	SEQ Room	S1 IL	A mix of 2 room ambiances for tight and powerful reflections.
	Bank1 28	Warehouse	ENS	Room SEQ	S1 IL	A very large rehearsal warehouse with a sense of depth, good for drums and electric guitar.
	Bank1 29	Hardwood Room	—	Room CEQ	S1 IL	Simulates a large wooden room. Ideal for narration.
	Bank1 30	Analog Room	Delay-PEQ	Room	S1 IL	Room reverb with a warm "round" sound similar to sound recorded on an analog tape.
Plate Reverb	Bank1 31	Marble Plate	CHORS	Plate SEQ	S1 IL	A smooth plate with minimal reflections and chorus, for "spotlighting" solos or slow attack instruments.
	Bank1 32	Platinum Plate	MdDLY	Plate SEQ	S1 IL	A smooth and expansive plate with subtle modulation, great for sax and acoustic guitar.
	Bank1 33	Gem Plate	Plate SEQ	DyFIL SEQ	S1 IL	Extremely bright plate reverb that can be used with a variety of sources.
	Bank1 34	Gold Plate	—	Plate SEQ	S1 IL	Basic plate reverb, good for drums.
	Bank1 35	2 Gold Plate	Plate	Plate SEQ	P IL	Dual plate reverbs in parallel, especially good for vocals.
	Bank1 36	Iron Plate	—	Plate SEQ	S1 IL	Basic medium sized plate reverb for any instrument, has a wide variety of uses.
	Bank1 37	Large Plate	—	Plate SEQ	S1 IL	A slightly larger version of No. 36.
	Bank1 38	Dark Plate	—	Plate SEQ	S1 IL	A dark plate with low reflections, and fast high end decay. Retains the openness of a plate.
	Bank1 39	Sml Brt Plate	—	Plate SEQ	S1 IL	A small but bright plate.
	Bank1 40	C4 Filter Plate	Plate SEQ	DyFIL	S1 IL	A plate reverb that lets you control high frequency resonance with MIDI control change #4.
	Bank1 41	Richy StoneS	SEQ Hall	Plate SEQ	P IL	Uses Hall reverb to control spacial characteristics and Plate reverb to add heavy reverberation.
Gated Reverb	Bank1 42	Vanilla Gate	—	GtREV	S1 IL	A standard gate for drums.
	Bank1 43	Tight Gate	—	GtREV	S1 IL	A tight drum gate with high frequency resonance.
	Bank1 44	Drum Stretcher	GtREV SEQ	Plate SEQ	S1 IL	Reverse gate sound with a long, drawn out attack.
	Bank1 45	Slam Gate	—	GtREV	S1 IL	A bright and thin resonant gate.
	Bank1 46	Echo Gate	—	GtREV	S1 IL	Gate reverb with a reverse envelope.
Ducking Reverb	Bank1 47	Dynamic Reverb	DcREV	—	S1 IL	A ducking reverb for creating ambience without clouding the source. Especially good for sax.
	Bank1 48	Gated Plate	DcREV	—	S1 IL	Gated reverb sound for drums. Do not input signals from other instruments at the same time.
	Bank1 49	Duckereverb	DcREV	—	S1 IL	Activates a deep reverb when the signal goes below -25 dB. Good for breaks.
	Bank1 50	Frnt-Back Hall	SpAMB SEQ	Hall SEQ	S1 IL	Lets you control the front to back depth. You can use MIDI control change #4 to adjust the depth.

Note : Block-A = EQ-A, FX-A Block-B = EQ-B, FX-B S1 = serial1 S2 = serial2 P = parallel

Class	Memory No.	Preset Name	Algorithm			Description
			Block-A	Block-B	Struct	
Spacious Ambience	Bank1 51	Location Hall	SpAMB SEQ	Hall SEQ	P IL	Lets you control front to back movement using MIDI control change #4 and #10. Use for ambience.
	Bank1 52	Room Location	SpAMB SEQ	Room SEQ	P IL	Provides a slightly smaller ambience than number 51.
	Bank1 53	Off Mic'ing	SpAMB	—	S1 IL	Makes On-Mic recordings sound Off-Mic. For adjusting distance perception during a mix.
Delay	Bank1 54	Bermuda Delay	Delay	Hall	S1 IL	An expansive triangle delay (left - center - right) for brass ensembles or trumpets.
	Bank1 55	Icicle Delay	SEQ Delay	Room	S1 IL	Bright top-end delay sneen. Good for synthesizers.
	Bank1 56	Ripple Magic	MdDLY	SEQ DbDLY	S1 IL	Gently and evenly spreads arpeggio out to the left and right edges, for acoustic guitar and syth. piano.
	Bank1 57	Idle Echo	DbDLY	Room SEQ	S1 IL	Adds a mellow echo to delicate sounding sythesizers, etc.
	Bank1 58	L to R rolling	MtDLY	SEQ Hall	S1 IL	If you input a cymbal into Ch1, it will roll the sound back and forth from left to right.
	Bank1 59	Tempo Triangle	TmDLY	Plate	S1 IL	120 bpm triangle delay with ambient reverb, for a special acoustic guitar delay sound.
	Bank1 60	L/R-Dly + Plate	LgDLY	Plate	S1 IL	Long (L/R) delay with feedback and plate reverb, for electric guitar solos.
	Bank1 61	Compu Meditate	MtDLY	MtDLY	S2 IL	Uses 2 multi tap delays to create a spacy sound from long cyclic panning. No dry sound at all.
	Bank1 62	NY City Lights	MdDLY	Plate	S1 IL	Long out-of-phase modulated echoes create a tranquil ambient feel. Good for sax.
	Bank1 63	Bendin Echo	MdDLY	Plate SEQ	S2 IL	Modulated plate creating a unique ambient space for solo sax or acoustic guitar.
	Bank1 64	Reflection	MdDLY	—	S1 IL	Delay that reflects the sound around in various directions. Give it a try with elec. guitar arpeggios.
	Bank1 65	Melting Delay	Plate	MdDLY	S2 IL	The sound of the delay changes to reverb and fades away... A technique used at mixdown.
	Bank1 66	Velocity Delay	PpDLY	Plate	S1 IL	Uses MIDI key velocity to trigger ping pong delay. Echoes become stronger the harder you play.
	Bank1 67	Ping Pong Delay	PpDLY	—	S1 IL	Standard Ping Pong Delay. Adjust the time parameter to match the tempo.
	Bank1 68	Multi Ping Pong	MtDLY	CH+RV	S1 IL	Multi tap ping pong delay with tap repetition and volume change parameters set as active parameters.
	Bank1 69	Hold Delay	HdDLY	CH+RV	S1 IL	Holds the sound according to the timing with which you press FUNCTION [A] or Pedal 1.
	Bank1 70	Star Tinkler	PtDLY	CHORS SEQ	S1 IL	An interesting animated synth echo ambience. Give it a try with both staccatto notes and chords.
	Bank1 71	Mute Flybys	PtDLY	FLNGR SEQ	S1 IL	Delay that creates vocoder-like muted guitar flyby echoes.
Chorus	Bank1 72	Presence Chorus	CHORS	Plate SEQ	S1 IL	A chorus effect with a clear attack.
	Bank1 73	Vintage Chorus	CHORS PEQ	Room SEQ	S1 IL	A mellow round sounding chorus ideal for acoustic guitar or piano.
	Bank1 74	Maple Chorus	CHORS PEQ	Plate SEQ	S2 IL	A rich chorus with no delay. Works great for a wide variety of sources.
	Bank1 75	Clarity Chorus	CHORS	Plate SEQ	S1 IL	Filters out high frequency sounds form the chorus, but not the source sound, for a clear sound.

Note : Block-A = FO-A FX-A Block-B = FO-B FX-B S1 - serial1 S2 - serial2 P - parallel

Class	Memory No.	Preset Name	Algorithm			Description
			Block-A	Block-B	Struct	
Chorus	Bank1 76	3D Chorus	SEQ BdCHO	DmDLY	S1 IL	An expansive and rich multiband chorus with different settings for each frequency band.
	Bank1 77	Lush Chorus	BdCHO SEQ	Plate SEQ	S1 IL	A rich chorus for electric piano.
	Bank1 78	Midrange Chorus	BdCHO SEQ	Plate SEQ	S1 IL	This effect combines midrange chorus and plate reverb, especially good for electric guitar.
	Bank1 79	Bass Chorus	BdCHO SEQ	SEQ	S1 IL	Designed for bass, concentrates chorus effect on the harmonics of the mid and high frequency bands.
	Bank1 80	Decadent Chor	DeCHO SEQ	PHASR SEQ	S1 IL	Strong early reflection delays with a light phaser effect for an expansive semi-dry ambience.
	Bank1 81	Deca Pan Delay	SEQ DeCHO	PHASR SEQ	S1 IL	Left to right echo panning. Good for synthesizer or electric guitar.
	Bank1 82	Crystal Chorus	SEQ DeCHO	COMP SEQ	S1 IL	Very short delays with compression. Great for electric piano.
	Bank1 83	Mini Sparkler	DeCHO SEQ	PHASR SEQ	S1 IL	Very short delays with phasing. This chorus is also primarily for electric piano.
	Bank1 84	Ensemble Groove	ENS	PT+CH	S1 IL	A heavy ensemble effect for synth. strings and guitar.
Bank1 85	Ensemble Chorus	ENS	Room SEQ	S1 IL	Ensemble effect for instruments other than strings.	
Flanger	Bank1 86	3D Zero Flang	MdDLY	MdDLY	P IL	Uses two delay lines for true zero-crossing phase cancellation flanging.
	Bank1 87	Bass Flng+Comp	FLNGR	COMP SEQ	S1 IL	A flanger with compression, designed for electric bass.
	Bank1 88	Flanger+Hall	FLNGR	Hall	P IL	Spacious flange hall without warping, excellent for voices or sythesizer.
	Bank1 89	Flanger Delay	FLNGR	MdDLY	S2 IL	An unusual effect using a flanger to warp the sound of the delay.
	Bank1 90	Flanger Platz	SpFLN	Plate	S2 IL	An effect with heavy step flanging.
	Bank1 91	Triger Flanger	TgFLN	—	S1 IL	Press FUNCTION A to turn the triggered flanging ON/OFF. Use for mixing, etc...
Phaser	Bank1 92	MegaII Phaser	PHASR	PHASR	P IL	Dual phasers with heavy swirl. Good for electric piano, synthesizers, acoustic or electric guitar.
	Bank1 93	Water Wonder	PHASR	SEQ PDLY	S1 IL	Step phaser with cross feedback delay to create left-to-right expansion. Turn Delay Off as desired.
	Bank1 94	Tricera Phaser	Delay	PHASR	S1 IL	Three point (left - center - right) delay panning with a strong phaser swirl.
	Bank1 95	Mega Phaser	PHASR	CH+RV	S1 IL	Stereo phasing with just a slight amount of room reverb for a close-mic ambient sound.
	Bank1 96	Phasing Drums	TgPHS	Room	S1 IL	Adds phasing to drum reverberation. Particularly good modulation can be achieved from snare drums.
Panning	Bank1 97	HaaSlow Steps	HsPAN	CH+RV SEQ	S2 IL	Smooth slow panning sound from Haas panning. Especially good for acoustic guitar.
	Bank1 98	Deca Panner	PAN	SEQ DeCHO	S2 IL	A powerful panning effect. Adjust the panning speed with the Active Parameter tempo control.
	Bank1 99	3D Space Pan	SEQ TgPAN	Hall SEQ	P IL	A large panning effect with a sense of spaciousness. Good for synthesizers, etc...

Class	Memory No.	Preset Name	Algorithm			Description
			Block-A	Block-B	Struct	
Morphing	Bank2 1	Hall Morphing	Hall SEQ	—	M _{IL}	Lets you change the sound with morphing.
	Bank2 2	DeCHO Morphing	DeCHO SEQ	—	M _{IL}	
	Bank2 3	Plate Morphing	Plate SEQ	—	M _{IL}	
	Bank2 4	Flngr Morphing	FLNGR SEQ	—	M _{IL}	
	Bank2 5	DI+Rv Morphing	DL+RV SEQ	—	M _{IL}	
	Bank2 6	Ch+DI Morphing	CH+DL SEQ	—	M _{IL}	
	Bank2 7	Pt+DI Morphing	PT+DL-SEQ	—	M _{IL}	
	Bank2 8	Pt+Ch Morphing	PEQ PT+CH	—	M _{IL}	
	Bank2 9	Ch+Rv Morphing	CH+RV SEQ	—	M _{IL}	
	Bank2 10	Break Morphing	PEQ Break	—	M _{IL}	
Pitchshifter	Bank2 11	Pitch Myst Echo	Pitch	CH+RV	S1 _{IL}	Employs micro-pitch shifting to produce a thicker sound, for synthesizer or electric piano.
	Bank2 12	Whole Tone Gliss	Pitch	DeCHO	S1 _{IL}	This effect raises the pitch a whole tone with each successive echo.
	Bank2 13	Pitch Crystals	MtPCH SEQ	Plate SEQ	S1 _{IL}	Scattered delay and pitchshifting to create a rich chorus effect. Excellent with electric piano.
	Bank2 14	Metalic Attack	MtPCH PEQ	CEQ MdDLY	S1 _{IL}	Creates metallic sounds from percussive instruments
	Bank2 15	Pitched Delay	MtPCH	MdDLY	S2 _{IL}	Slight pitchshifting added to feedback delay to create a chorus effect.
	Bank2 16	A's Beethoven	MtPCH	Hall	S1 _{IL}	Try this effect with synth strings or when playing staccato.
	Bank2 17	Harmonic 3rds	It PCH	CH+RV	S1 _{IL}	Adds 3rds that are slightly detuned on each channel. Set parameters according to the key and scale of the tune.
	Bank2 18	Chord Shift	It PCH	DeCHO	S1 _{IL}	Adds a 3rd above and a 4th below. Set parameters according to the key and scale of the tune.
	Bank2 19	Dgtl Tape -PDL1	TgFLN	REVRS	S2 _{IL}	Use Pedal 1 to control this effect. Give it using the sound from a CD or DAT.
	Bank2 20	Rewind Tape	REVRS CEQ	—	S1 _{IL}	An special effect that produces a sound similar to a tape player being rewound.
Dynamics	Bank2 21	Total Limiter	LIMIT	—	S1 _{IL}	Creates sound pressure by compressing all of the mixed source.
	Bank2 22	Doctor CD1	PEQ M PEQ	DAL PEQ	S1 _{IL}	For mixdown. Use PEQ to adjust the top and bottom caps and M PEQ for additional fine adjustments.
	Bank2 23	Doctor CD2	PEQ M PEQ	DAL	S1 _{IL}	Slightly more bottom boost than No. 22.
	Bank2 24	Doctor CD3	PEQ M PEQ	Room	S1 _{IL}	Adds atmosphere to overly dry master tapes.
	Bank2 25	Drum Compressr	COMP	Gate	S1 _{IL}	Uses a short attack time and low sensitivity level to tame unwanted drum peaks, good for Bass too.

Note : Block-A = EQ-A, FX-A Block-B = EQ-B, FX-B S1 = serial1 S2 = serial2 P = parallel

Class	Memory No.	Preset Name	Algorithm			Description
			Block-A	Block-B	Struct	
Dynamics	Bank2 26	Comp Leveler	COMP	Gate	S1 IL	Lets you use the compressor without destroying the attack bite. Great for electric piano, etc...
	Bank2 27	Dynamic Drive	SEQ DRIVE	AMP SEQ	S1 IL	Provides a clean sound when you play soft, and mild distortion when you play hard.
	Bank2 28	Power Grunge	SEQ COMP	SEQ DRIVE	S2 IL	A different feel than No. 27, Dynamic Drive. Levels are controlled by the EQ to provide a mild distortion.
	Bank2 29	Power Drive	DRIVE SEQ	AMP SEQ	S1 IL	Heavy distortion. Adjust the gain according to the source being input.
	Bank2 30	NR Dyna Drive	DRIVE	SEQ DyFIL	S1 IL	Heavy distortion using the dynamic filter EQ and noise reduction. For electric guitar of course!
Filter, Gate	Bank2 31	Contra Bandus	M PEQ	—	S1 IL	Lets you create a wider frequency band at mixdown by adding low and high band signals.
	Bank2 32	Harmonic Sprkl	Plate SEQ	EXCIT	S1 IL	High end sizzly plate exciter. Adds high end boost only when the signal exceeds a certain level.
	Bank2 33	Auto Cry Wah	Wah PEQ	—	S1 IL	Audio level triggers the wah effect, for electric guitar.
	Bank2 34	CutMe BoostMe?	—	DyFIL SEQ	S1 IL	Uses the dynamic filter to cut the noise level when there is no signal.
	Bank2 35	Amp+Dry Plate	AMP	SEQ Plate	S1 IL	Amp fed into a relatively dry plate for a minimum ambient effect. Great for electric guitar.
	Bank2 36	SubAtomicDrums	SEQ SbGEN	BtAMB SEQ	S1 IL	Low-end frequency enhancement and Bottom Ambience pitch warping for drums.
	Bank2 37	Lyt Hiccups	SEQ DeCHO	BtAMB SEQ	S1 IL	An unusual pitch warping effect for drums. Give it a try!
	Bank2 38	Ns Gate+VCA	—	Gate	S1 IL	Cuts line noise and uses MIDI control change #7 for VCA control, long release preserves reverb decay tails.
	Bank2 39	SloTransChords	SIATK	CH+DL	S1 IL	Very slow attack followed by a strong "mod" chorus and reverb for an extremely relaxed sound.
FX, Others	Bank2 40	Mother Ship	TgFLN	DOPLR	S1 IL	Extremely slow Doppler shift and flange. Hold a synth string cord. Also try with drums.
	Bank2 41	EP ThunderClap	RING SEQ	Hall	S1 IL	Use the palm of your hand to strike the keys of an electric piano (or guitar) to create a thunderclap.
	Bank2 42	Voc+Pitch+Chor	SEQ VOC	PT+CH	S1 IL	Voice vocoder processed with chorus and pitch shifting. Input synth. strings, oran or synth. brass to ch2.
	Bank2 43	3rd World Order	Break	—	S1 IL	A bizarre sound effect similar to a synth drum. This effect is not defective.
	Bank2 44	PDL1-4 Pwr Trip	SEQ DeCHO	ROLLR	S1 IL	Use FUNCTION [A] to simulate the effect of a power failure on a multitrack recorder.
	Bank2 45	Heavy Rotor	ROTRY SEQ	SEQ Room	S1 IL	A powerful and hard rotary speaker sound with noise and distortion.
	Bank2 46	Clean Rotor	ROTRY SEQ	SEQ Room	S1 IL	A clean rotary speaker sound without distortion.
	Bank2 47	Vocal Cancel	PEQ VoCNL	Pitch	S1 IL	Lets you change the pitch of the notes in FxB after removing the vocal.
	Bank2 48	Stereo Freeze	FREEZ	—	S1 IL	Standard stereo freeze settings. Use [REC] to record and [Ready] to playback the recorded portion.
	Bank2 49	Laurido	VB/TR	Room	S1 IL	A fast tremolo with added room ambience for electric guitar.
	Bank2 50	Roller Ring	RING	ROLLR	S1 IL	Provides light ring modulation when you play soft, and larger modulation when you play hard.

Note : Block-A = EQ-A, FX-A Block-B = EQ-B, FX-B S1 = serial1 S2 = serial2 P = parallel

Class	Memory No.	Preset Name	Algorithm			Description
			Block-A	Block-B	Struct	
Vocal	Bank2 51	Voice Processr	SEQ LIMIT	Gate	S1 IL	A complete voice processor with sibilance suppressor. Adjust the threshold, compression, and filters as required.
	Bank2 52	Vocal DeESSer	SEQ LIMIT	LIMIT	S1 IL	Vocal sibilance suppressor. Adjust the threshold, compression, and filters as required to clip sibilant sounds.
	Bank2 53	Female Vo Comp	COMP	—	S1 IL	Lets you bring out a fatter sound, for ballads and soft vocals.
	Bank2 54	VocRoom Ducker	DcREV	—	S1 IL	Adds reverb directly to vocals without becoming muddy.
	Bank2 55	Vocal Chamber	CHORS	Room SEQ	S1 IL	A vocal echo chamber.
	Bank2 56	New Age Vox	SEQ ENS	CEQ Room	S1 IL	A clear vocal effect with suppressed reverb. Also good for UK pop style drums or string ensembles.
	Bank2 57	Vocal Platz II	Plate	Plate	P IL	Dual plate reverbs in parallel, for vocals.
	Bank2 58	Xp Vocal Platz	Plate	Plate	P IL	Dual plate reverb with a slightly different character than No. 57. Also good for non-vocal sources.
	Bank2 59	Vocal Comp Rev	PEQ COMP	Plate	S1 IL	Compression and EQ eliminate vocal fluctuation and blowing for a natural sounding vocal reverb.
	Bank2 60	Male Plate	PEQ Plate	—	S1 IL	Standard plate reverb for male vocals. Use free block to obtain the sound you desire.
	Bank2 61	Wide Plate	PEQ Plate	—	S1 IL	Dramatic left-to-right expansion allowing you to adjust the weight of the vocal, adjust the EQ to use with other sources.
	Bank2 62	Magic Reverb+	PEQ Plate	Pitch SEQ	S2 IL	Corrects flat sounding vocals with pitchshifting and reverb. Use the pitchshifter for fine adjustments.
	Bank2 63	Sustain Castle	CEQ LIMIT	PEQ Hall	S2 IL	Adds sustain to reverb. Try it with solo female vocals or stringed instruments.
	Bank2 64	Vocal Elektra	PHASR	PEQ Plate	S2 IL	Adds phaser to reverb, for pop vocals or chorus. Use with guitar or piano for an "oldies" flavor.
	Bank2 65	Visual Vox	SpAMB PEQ	PEQ Delay	S2 IL	Mixes both near and far vocal reflections. Use the Delay Time and SpAMB to achieve the proper balance.
Standard Selection	Bank2 66	Stereo Delay	Delay	—	S1 IL	Standard delay with a maximum delay time of 1300 msec.
	Bank2 67	Long Delay	LgDLY	—	S1 IL	Standard delay with a maximum delay time of 2730 msec.
	Bank2 68	2 Mono Delay	MnDLY	MnDLY	S1 IL	Monaural delay used in both FxA and FxB to provide up to 10.92 seconds of delay.
	Bank2 69	Feedback Delay	Delay	—	S1 IL	Standard feedback delay. Use the Active Parameters to edit the effect.
	Bank2 70	Triggerd Pan	TgPAN	—	S1 IL	Determine the speed with [Tempo] and [Cycle] and use [TRIG] to start the panning.
	Bank2 71	NTSC 1~3 Frame	Delay	Delay	S1 IL	TV NTSC signal frame unit delay. FxA ON=1 frame, FxB ON=2 frames, FxA+FxB ON=3 frames.
	Bank2 72	NTSC 1~3 Field	Delay	Delay	S1 IL	TV NTSC signal field unit delay. FxA ON=1 field, FxB ON=2 fields, FxA+FxB ON=3 fields.
	Bank2 73	PAL/SCM 1~3 Frm	Delay	Delay	S1 IL	TV PAL/SECAM signal frame unit delay. FxA ON=1 frame, FxB ON=2 frames, FxA+FxB ON=3 frames.
	Bank2 74	PAL/SCM 1~3 Fld	Delay	Delay	S1 IL	TV PAL/SECAM signal field unit delay. FxA ON=1 field, FxB ON=2 fields, FxA+FxB ON=3 fields.
	Bank2 75	Pitch Shift	Pitch	—	M IL	A standard 2 channel pitch shifter. Use Active Parameter [B] to adjust the pitch of both channels.

Note : Block-A = EQ-A, FX-A Block-B = EQ-B, FX-B S1 = serial1 S2 = serial2 P = parallel

Class	Memory No.	Preset Name	Algorithm			Description
			Block-A	Block-B	Struct	
Hall (Send-Return)	Bank2 76	Boston Hall	MdDLY SEQ	Hall SEQ	S1 SR	Bright and rich sounding orchestra hall with medium decay, good for percussive instruments.
	Bank2 77	Large Hall	MdDLY	Hall	S2 SR	Smooth, bright and subtle large hall with slow reverb and low level early reflections.
	Bank2 78	Small Hall	MdDLY	Hall	S2 SR	Similar to No. 77, but simulates a hall of smaller physical size.
	Bank2 79	Concert Hall	Hall	DmDLY	S1 SR	Uses dimension delay to create a dark hall with a 3D effect ideal for orchestral sounds.
	Bank2 80	3D Church	Hall SEQ	DmDLY SEQ	S1 SR	Simulates a bright sounding church with a high ceiling and rich stone wall reflections.
	Bank2 81	3D Cathedral	Hall SEQ	DmDLY SEQ	S1 SR	Simulates a large, deep and dark cathedral. Particularly suitable for voices or organ.
	Bank2 82	Clr Cathedral	Hall SEQ	MdDLY SEQ	S2 SR	Large cathedral hall designed for ensembles. Also good for chorus and organs.
	Bank2 83	Flyby Reverb	DeCHO	Hall	S2 SR	A slightly bizarre sound created by sending only the reverb to the Deca Chorus for panning.
Plate (Send-Return)	Bank2 84	Marble Plate	CHORS	Plate SEQ	S1 SR	A smooth plate with minimal reflection and chorus for "spotlighting" solos or slow attack instruments.
	Bank2 85	Platinum Plate	MdDLY	Plate SEQ	S1 SR	A smooth and expansive plate with subtle modulation, great for sax and acoustic guitar.
	Bank2 86	Gem Plate	Plate SEQ	DyFIL SEQ	S1 SR	An extremely bright plate with smooth expansion, matches a wide variety of sources.
	Bank2 87	Gold Plate	—	Plate SEQ	S1 SR	Basic plate reverb, good for drums.
	Bank2 88	2 Gold Plate	Plate	Plate SEQ	P SR	Dual plate reverbs in parallel, especially good for vocals.
	Bank2 89	Iron Plate	—	Plate SEQ	S1 SR	Basic medium sized plate reverb for any instrument, has a wide variety of uses.
	Bank2 90	Large Plate	—	Plate SEQ	S1 SR	A slightly larger version of No. 89.
	Bank2 91	Dark Plate	—	Plate SEQ	S1 SR	A dark plate with reduced wall presence, and fast high end decay. Retains the openness of a plate.
	Bank2 92	Crystal Plate	Plate SEQ	DyFIL SEQ	S1 SR	Extremely bright plate with smooth expansion, great for sax and acoustic guitar.
	Bank2 93	Sizzle Plate	—	Plate SEQ	S1 SR	A bright and sizzly special plate for a variety of sources.
	Bank2 94	Dry Ambient	—	Plate SEQ	S1 SR	A heavily muted special plate for drums and other instruments.
Vocal, Others (Send-Return)	Bank2 95	Plate & DeCHO	SEQ Plate	DeCHO	P SR	A mix of chorus and reverb that provides both expansion and depth.
	Bank2 96	Vocal Platz II	Plate	Plate	P SR	Dual plate reverbs in parallel for vocals.
	Bank2 97	Xp Vocal Platz	Plate	Plate	P SR	Dual plate reverb with a slightly different character than No. 96. Also good for non-vocal sources.
	Bank2 98	Vocal Comp Rv2	PEQ COMP	Plate	S1 SR	A slightly different version of Bank 2 effect No.59
	Bank2 99	Gentle Delay	FLNGR	MdDLY	S1 SR	Softens the delay sound to produce a gentle effect, for piano and acoustic guitar.

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