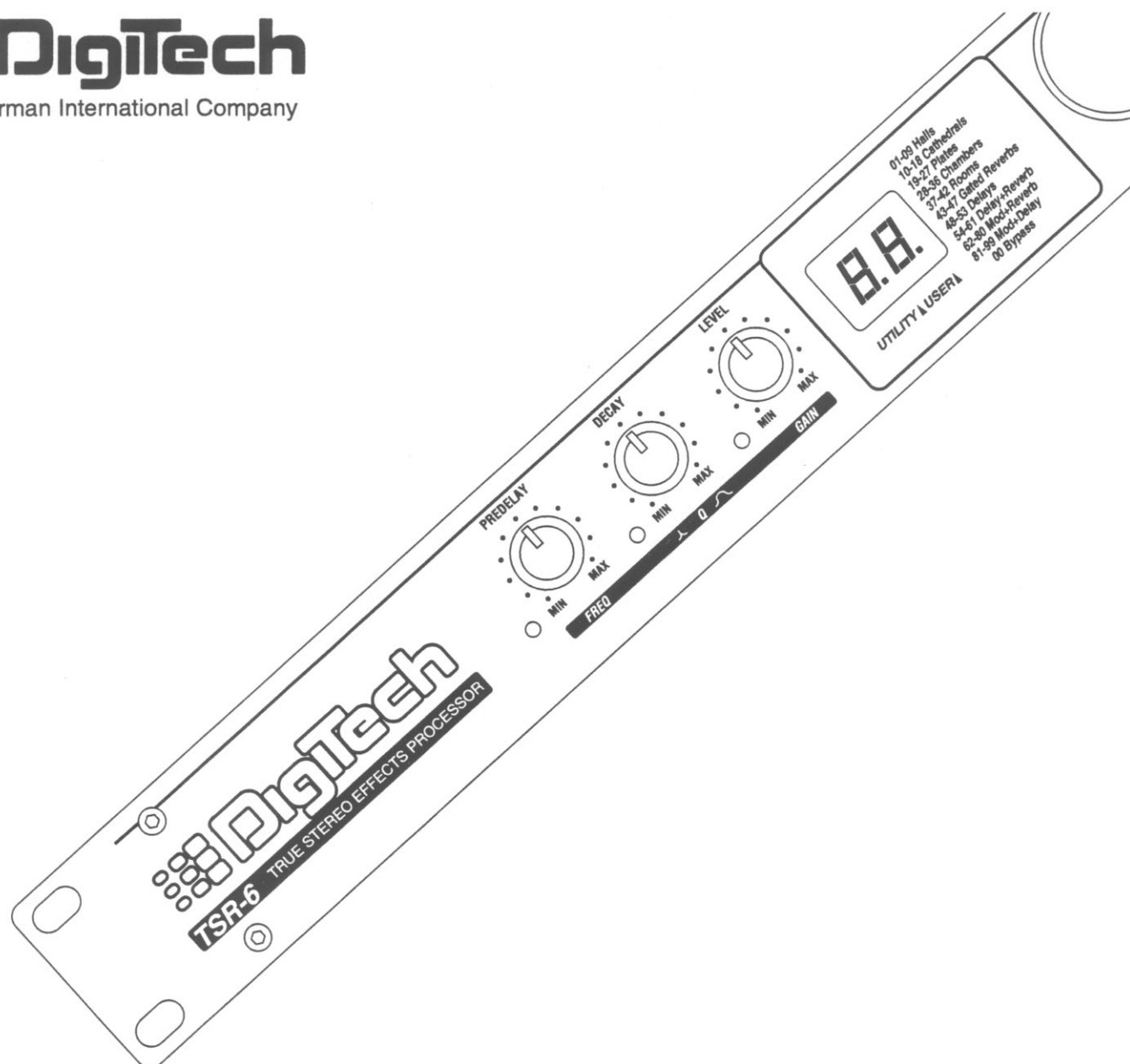




H A Harman International Company



TSR-6

True Stereo

Effects Processor



Owner's Manual



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



ATTENTION: RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE

The symbols shown at left are internationally accepted symbols that warn of potential hazards with electrical products. The lightning flash with arrowpoint in an equilateral triangle means that there are dangerous voltages present within the unit. The exclamation point in an equilateral triangle indicates that it is necessary for the user to refer to the owner's manual.

These symbols warn that there are no user serviceable parts inside the unit. Do not open the unit. Do not attempt to service the unit yourself. Refer all servicing to qualified personnel. Opening the chassis for any reason will void the manufacturer's warranty. Do not get the unit wet. If liquid is spilled on the unit, shut it off immediately and take it to a dealer for service. Disconnect the unit during storms to prevent damage.

U.K. MAINS PLUG WARNING

A molded mains plug that has been cut off from the cord is unsafe. Discard the mains plug at a suitable disposal facility. **NEVER UNDER ANY CIRCUMSTANCES SHOULD YOU INSERT A DAMAGED OR CUT MAINS PLUG INTO A 13 AMP POWER SOCKET.** Do not use the mains plug without the fuse cover in place. Replacement fuse covers can be obtained from your local retailer. Replacement fuses are 13 amps and **MUST** be ASTA approved to BS1362.

SAFETY INSTRUCTIONS (EUROPEAN)

NOTICE FOR CUSTOMERS IF YOUR UNIT IS EQUIPPED WITH A POWER CORD.

WARNING: THIS APPLIANCE MUST BE EARTHED.

The cores in the mains lead are colored in accordance with the following code:

GREEN and YELLOW - Earth BLUE - Neutral BROWN - Live

As colors of the cores in the mains lead of this appliance may not correspond with the colored markings identifying the terminals in your plug, proceed as follows:

- The core which is colored green and yellow must be connected to the terminal in the plug marked with the letter E, or with the earth symbol, or colored green, or green and yellow.
- The core which is colored blue must be connected to the terminal marked N or colored black.
- The core which is colored brown must be connected to the terminal marked L or colored red.

The power cord is terminated in a CEE7/7 plug (Continental Europe). The green/yellow wire is connected directly to the unit's chassis. If you need to change the plug, and if you are qualified to do so, refer to the table below.

CONDUCTOR		WIRE COLOR	
		Normal	Alt
L	LIVE	BROWN	BLACK
N	NEUTRAL	BLUE	WHITE
E	EARTH GND	GREEN/YEL	GREEN

WARNING: If the ground is defeated, certain fault conditions in the unit or in the system to which it is connected can result in full line voltage between chassis and earth ground. Severe injury or death can then result if the chassis and earth ground are touched simultaneously.

IMPORTANT!

FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING:

WATER AND MOISTURE: Appliance should not be used near water (e.g. near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

POWER SOURCES: The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

GROUNDING OR POLARIZATION: Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

POWER CORD PROTECTION: Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

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

FUSING: If your unit is equipped with a fuse receptacle, replace with only same type fuse. Refer to replacement text on the unit for correct fuse type.

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2

WARRANTY

1. The warranty registration card must be mailed within ten days after purchase date to validate this warranty.
2. DigiTech warrants this product, when used solely within the U.S., to be free from defects in materials and workmanship under normal use and service.
3. DigiTech liability under this warranty is limited to repairing or replacing defective materials that show evidence of defect, provided the product is returned to DigiTech WITH RETURN AUTHORIZATION, where all parts and labor will be covered up to a period of one year. A Return Authorization number may be obtained from DigiTech by telephone. The company shall not be liable for any consequential damage as a result of the product's use in any circuit or assembly.
4. Proof-of-purchase is considered to be the burden of the consumer.
5. DigiTech reserves the right to make changes in design or make additions to or improvements upon this product without incurring any obligation to install the same on products previously manufactured.
6. The foregoing is in lieu of all other warranties, expressed or implied, and DigiTech neither assumes nor authorizes any person to assume for it any obligation or liability in connection with the sale of this product. In no event shall DigiTech or its dealers be liable for special or consequential damages or from any delay in the performance of this warranty due to causes beyond their control.

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The information contained in this manual is subject to change at any time without notification. Some information contained in this manual may also be inaccurate due to undocumented changes in the product or operating system since this version of the manual was completed. The information contained in this version of the owner's manual supersedes all previous versions.

INTRODUCTION

Congratulations, and thank you for your purchase of the TSR-6. The TSR-6 includes six basic effects and a programmable parametric EQ. The TSR-6 is easy and fun to use. You have complete control over only the most important parameters, so you don't need to be a rocket scientist to get great results.

SECTION 1 - GETTING STARTED

SUPPLYING POWER

The TSR-6, like any piece of computer hardware, is sensitive to voltage drops, spikes, and surges. Interference such as lightning or power "brownouts" can seriously, and in extreme cases, permanently damage the circuitry inside the unit. Here are some ways to avoid this type of damage:

- Spike/Surge Suppressors - This is an inexpensive solution to all but the most severe of AC line conditions. Surge protected power strips usually cost only slightly more than unprotected strips, making them a worthy investment for protection of all your valuable gear.
- AC Line Conditioners - This is the best way to go for total protection from improper line voltages, albeit the more expensive way. Line conditioners constantly monitor for excessively high or low voltages and adjust accordingly, thus delivering consistent power levels.

AUDIO CONNECTIONS

The audio connections involve the rear panel connectors. The front panel's Mix and Level knobs are also used for proper setup. Refer to the front panel and rear panel diagrams on page 4 for assistance.

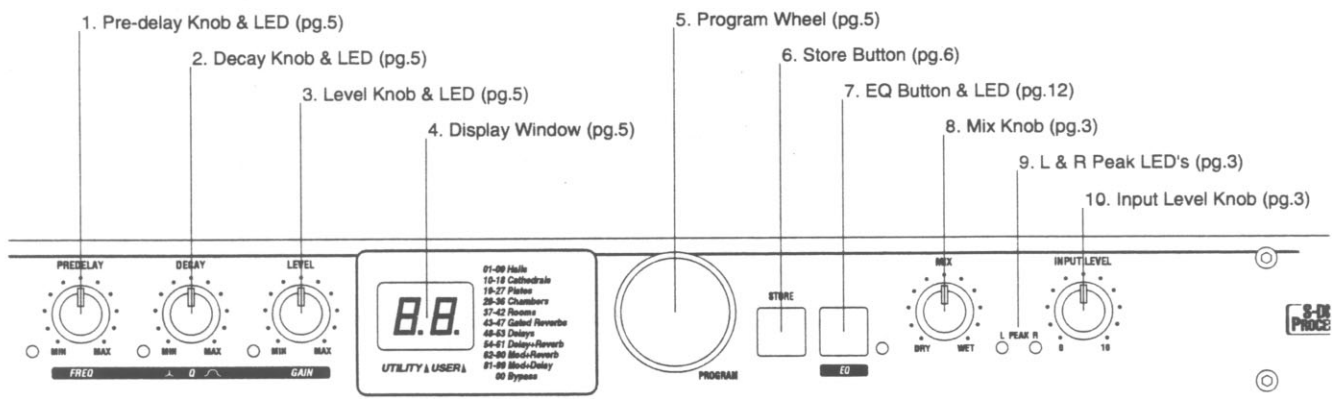
The TSR-6 has two audio inputs. When the Left and Right inputs are in use, you get true stereo signal paths. The Left input is to be used for mono applications. When only the Left input is in use, the input signal is branched to both the Left and Right inputs so the same signal is running through both sides of the processing.

The TSR-6 has two audio outputs. The outputs can go to a mixer or straight to an amp. The Left output should be used for mono applications.

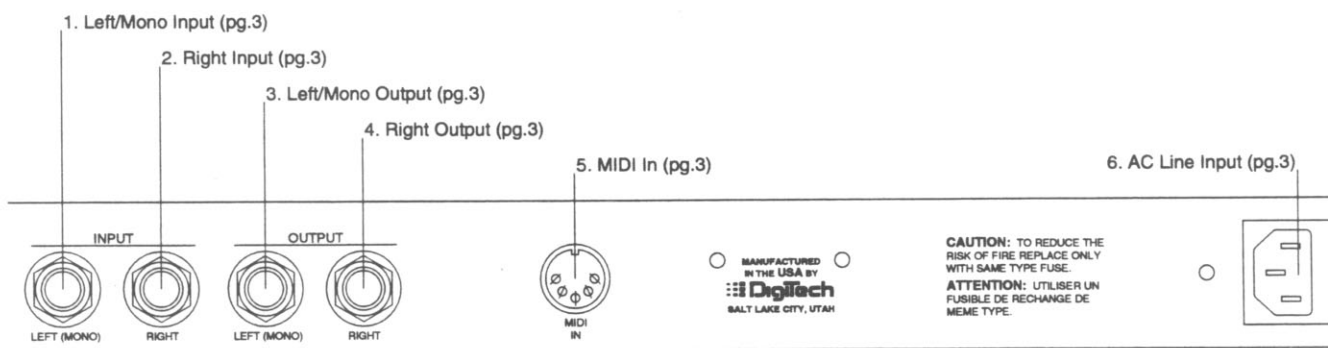
The mix knob adjusts the ratio of effect-to-original signal before the signal exits the TSR-6. The Input Level knob determines the amount of the signal entering the TSR-6. If the input signal is too loud the Clip LEDs will light, indicating digital clipping is occurring. The Mix and Level knobs are global settings, meaning the selected setting is applicable to all Programs.

The MIDI input accepts Program change commands for remote control of the User modified Programs.

FRONT PANEL CONTROLS



REAR PANEL CONNECTORS



SECTION 2 - USING THE TSR-6

SELECTING A PROGRAM

Use the Program wheel to select a Program. There are 99 Programs with Factory and User settings for each. The Display window indicates which Program number is selected and the decimal point above the User arrow will light if a User setting is currently selected. You can also select User Programs via MIDI Program Change commands.

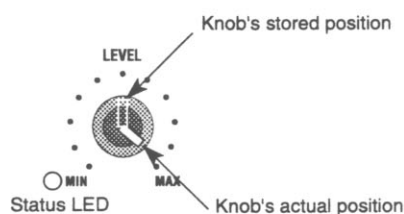
There are three effect configurations for each of the multieffect groupings. They are as follows: A **Series** configuration feeds the input signals into the first effect, and the first effect feeds the second effect. A **Parallel** configuration feeds the input signals into both effects simultaneously. A **Dual** configuration feeds the left input signal to the first effect, and the right input signal is fed to the second effect.

MODIFYING PROGRAMS

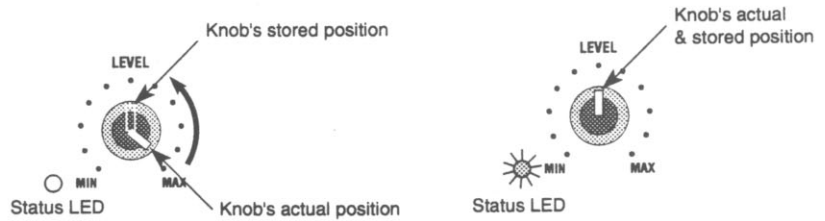
The TSR-6 already comes with 99 great sounding Factory Programs, but you have the option of personalizing your Programs. The procedure is as follows:

- Using the Program wheel, locate a Program you want to change.
- Change the effect's Parameters in the selected Program using the Parameter knobs.

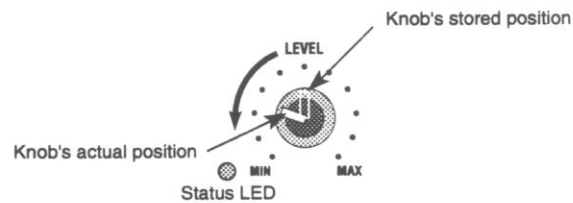
When you begin modifying a Program, the Parameter knob's Status LED is a key indicator to the modification process. The Parameter knob's status LED will be off, on dim, or on bright, according to the current position of the knob. Below are diagrams to illustrate the functions of the LEDs.



In the above diagram, the Level knob's stored value is halfway between MIN and MAX. The Level knob's actual position is MAX. When you enter a Program, the Status LED will be off because the knob's actual position is not the same as the stored position. **When the STATUS LED is OFF the knob does not have control of the Parameter.**



Move the Level knob from the actual position to the stored position, and the Status LED will go on and appear BRIGHT. **Once the STATUS LED is on, the knob has control of the Parameter**, and you can change the Parameter's current value.



If you continue to turn the Level knob after reaching the stored position, the Status LED will go DIM, indicating you are no longer at the stored value's position. However, the knob still has control of the Parameter's value.

- Store the changes. If you do not store the changes they will be lost when the Program is changed or if the power is removed from the TSR-6 (See Storing Modifications on page 13).

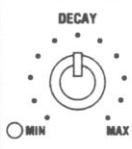
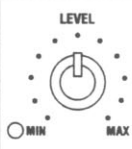
Stereo Reverb Programs 1-47

Reverb is produced when sound is reflected off surfaces in a room. Using a Reverb effect, you can create a simulated environment for live or recorded situations. You may actually be in a tiny room while recording but, if you use a Hall Reverb the recording will give the listener a sense that the material is actually being performed in a hall. There are six different reverb types you can select: Churches, Halls, Plates, Chambers, Rooms, and Gated. The Reverb Programs, knob assignments, Parameters, and their functions are as follows:

Preset List For Stereo Reverbs

PROGRAM #	EFFECT
01-09	Halls
10-18	Cathedrals
19-27	Plates
28-36	Chambers
37-42	Rooms
43-47	Gated Reverbs

Reverb and Gated Reverb Knob Assignments

		
Pre-delay	Reverb Decay	Reverb Level

Reverb Parameters and Functions

- Pre Delay.....Sets the amount of time before reverb is heard. Ranges from 0 to 98 milliseconds.
- Reverb DecayThe amount of time it takes for the Reverb to fade out. Ranges from 0 to 98.
- Reverb LevelControls the amount of the reverb signal. Ranges from 0 to 98.

Stereo Delay Programs 48-53

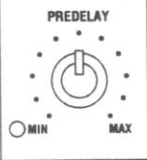
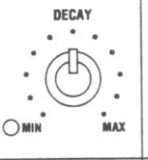
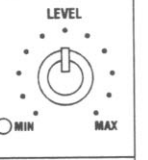
The Delay effect causes a signal to be duplicated and heard later than the original signal. The delayed signal is usually fed back into the Delay to cause it to repeat. This is called "feedback". All of these Delay Programs are true stereo Delays. The Delay Programs, knob assignments, Parameters, and their functions are as follows:

Preset List For Stereo Delays

PROGRAM #	EFFECT
48	640ms Stereo Delay
49	640ms triplet Stereo Delay
50	640ms syncopated triplet Stereo Delay
51	640ms Ping Pong Stereo Delay
52	640ms triplet Ping Pong Stereo Delay
53	640ms syncopated triplet Ping Pong Stereo Delay

NOTE: Triplet =  Syncopated Triplet = 

Delay Knob Assignments

		
Delay Time	Feedback	Level

Delay Parameter and Functions

<u>Delay Time</u>	Controls the length of time before the Delayed signal is heard. Ranges from 1 to 64 (x10 Milliseconds).
<u>Feedback</u>	Controls the percentage of the output signal that will be fed back to the input of the delay. Ranges from 0 to 98.
<u>Level</u>	Controls the level of the delay. Ranges from 0 to 98.

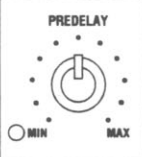
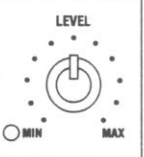
Delay/Reverb Programs 54-61

Programs 54-61 are combination Delay/Reverb effects. The Reverb is a Hall reverb. The Delay/Reverb Program's knob assignments, Parameters, and their functions are as follows:

Preset List For Delay/Reverb

Series Effects	Program#	Effect
L/R→Stereo DLY→REV→L/R	54	300ms MAX Delay w/ 0% feedback
	55	300ms MAX Delay w/ 5% feedback
	56	300ms MAX Delay w/ 15% feedback
	57	300ms MAX Delay w/ 25% feedback
Dual Effects		
Left→DLY→L/R	58	600ms MAX Delay w/ 0% feedback
Right→Reverb→L/R	59	600ms MAX Delay w/ 5% feedback
	60	600ms MAX Delay w/ 15% feedback
	61	600ms MAX Delay w/ 25% feedback

Delay/Reverb Knob Assignments

		
Delay Time	Reverb Decay	Dly/Rvb Mix

Delay/Reverb Parameters and Functions

- Delay Time..... Controls the length of time before the delayed signal is heard. Ranges from 1 to 30/60 (x10 milliseconds).
- Reverb DecayThe amount of time it takes for the reverb to fade out. Ranges from 0 to 98.
- Dly/Rvb Mix.....Controls the ratio of delay to reverb. Ranges from 0 to 98.

Mod/Reverb Programs 62-80

Programs 62-80 are Reverbs that include one of the four modulation effects. The modulation effects are: Chorus, Flange, Tremolo, and Detune. The Modulation/Reverb Program's, knob assignments, Parameters, and their functions are as follows:

Preset List For Mod/Reverbs

Series Effects	Program#	Effect
L/R→Stereo MOD→REV→L/R	62	Detuner
	63	Shallow Chorus
	64	Deep Chorus
	65	Shallow Flanger
	66	Deep Flanger
	67	Shallow Tremolo
	68	Deep Tremolo
Parallel Effects L/R→Stereo MOD→L/R L+R→Reverb→L/R	69	Detuner
	70	Shallow Chorus
	71	Deep Chorus
	72	Shallow Flanger
	73	Deep Flanger
Dual Effects Left→MOD→L/R Right→Reverb→L/R	74	Detune
	75	Shallow Chorus
	76	Deep Chorus
	77	Shallow Flanger
	78	Deep Flanger
	79	Shallow Tremolo
	80	Deep Tremolo

Mod/Reverb Knob Assignments

PREDELAY 	DECAY 	LEVEL 
Speed	Reverb Decay	Mod/Rvb Mix

Mod/Reverb Parameters and Functions

- Speed.....Controls the modulation speed of the chorus, flange, or tremolo; or controls the amount of detune for the Detune effect. Ranges from 0 to 98 (detune ranges are -15 to 15 x2 cents).
- Reverb DecayThe amount of time it takes for the reverb to fade out. Ranges from 0 to 98.
- Mod/Rvb MixControls the ratio of modulation effect to reverb. Ranges from 0 to 98.

Mod/Delay Programs 81-99

Programs 81-99 are Delays that include one of the four modulation effects. The modulation effects include: Chorus, Flange, Tremolo, and Detune. The Modulation/Delay Program's knob assignments, Parameters, and their functions are as follows.

Preset List For Mod/Delays

Series Stereo Effects	Program#	Effect
L/R→MOD→640ms DLY→L/R	81	Detuner
	82	Shallow Chorus
	83	Deep Chorus
	84	Shallow Flanger
	85	Deep Flanger
	86	Shallow Tremolo
	87	Deep Tremolo
Parallel Stereo Effects		
L/R→MOD→L/R	88	Detuner
L+R→640ms Delay→L/R	89	Shallow Chorus
	90	Deep Chorus
	91	Shallow Flanger
	92	Deep Flanger
Dual Effects		
Left→MOD→L/R	93	Detune
Right→980ms Delay→L/R	94	Shallow Chorus
	95	Deep Chorus
	96	Shallow Flanger
	97	Deep Flanger
	98	Shallow Tremolo
	99	Deep Tremolo

Mod/Delay Knob Assignments

PREDELAY	DECAY	LEVEL
		
Speed	Delay Time	Mod/Dly Mix

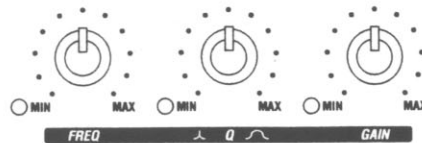
Mod/Delay Parameters and Functions

<u>Speed</u>	Controls the modulation speed of the chorus, flange, or tremolo; or controls the amount of detune for the Detune effect. Ranges from 0 to 98 (detune ranges are -15 to 15 x2 cents).
<u>Delay Time</u>	Controls the time before the delayed signal is heard. Ranges from 1 to 64/98 (x10 ms).
<u>Mod/Dly Mix</u>	Controls the ratio of modulation effect to delay. Ranges from 0 to 98.

Parametric EQ

A Parametric EQ is included in every Program. It lets you change the overall tonal qualities of the effects. The EQ has no effect on the dry signal. Enter and exit the EQ by pressing the <EQ> button. The EQ knob assignments, Parameters, and their functions are as follows:

EQ Knob Assignments



EQ Parameters and Functions

Frequency Allows you to select the center frequency of each band. The numbers displayed in the LED display are reflective of the actual center frequency of the EQ.

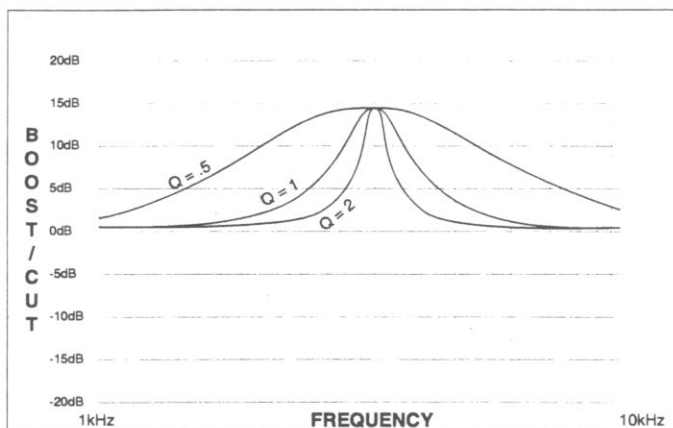
Frequency		Frequency	
Display	Hz	Display	Hz
3	30	61	610
4	40	77	770
5	50	10	1000
6	60	12	1200
8	80	16	1600
9	90	20	2000
11	110	25	2500
15	150	31	3100
19	190	39	3900
24	240	49	4900
30	300	62	6200
38	380	78	7800
48	480	99	9900

Q Controls the width of the EQ band.
Ranges from 0 to 9.

Bandwidth			Bandwidth		
Display	Q	(octaves)	Display	Q	(octaves)
0	16.0	0.06	5	3.4	0.29
1	11.8	0.09	6	2.5	0.40
2	8.6	0.12	7	1.9	0.54
3	6.3	0.16	8	1.40	0.73
4	4.7	0.21	9	1.0	1.00

Boost/Cut Allow you to boost and cut the frequency.
Ranges from -15 to 15 dB.

NOTE: The knob's EQ Parameter assignments are printed on the chassis below the knobs.



The diagram above illustrates how a Q setting works. The smaller the Q setting, the wider the band width.

STORING YOUR MODIFICATIONS

This function lets you store any modifications you have made to Programs. You must store your changes if you want to recall them later. The procedure is as follows:

- Press the <STORE> button. This saves any changes to the current Program number in the User setting.

NOTE: All dimly lit status LEDs will be brightly lit when the value is stored, and the User LED will light.

SECTION 3 OTHER TSR-6 FUNCTIONS

CHANGING THE MIDI CHANNEL

This function lets you choose a MIDI channel from which the TSR-6 will accept MIDI Program Changes. You can also select OFF so that no data is accepted. Remember, if your MIDI transmitting device is sending information on MIDI channel 13, you need to have MIDI Channel 13 selected on the TSR-6. The TSR-6 will only respond to MIDI Program Changes 0-99. The procedure for changing the MIDI channel is as follows:

- Turn the Program wheel until the decimal point in the display window above the Utility marker is lit and the display alternates between "Ch" and the current MIDI channel number.
- Change the MIDI Channel number using the LEVEL parameter knob. The MIDI channel selections are: 1 thru 16, All (all channels), and -- (indicating OFF).
- Exit the MIDI Channel/Utility section by turning the Program wheel.

NOTE: The factory default MIDI channel number is Channel 1.

CHANGING THE NOISE GATE (SILENCER™) THRESHOLD

This function selects the threshold where the noise gate opens. The Parameter setting is global, meaning the selected setting applies to all Programs. The procedure is as follows:

- Turn the Program wheel until the decimal point in the display window above the Utility marker is lit, and the display alternates between "Th" and the current Noise Gate Threshold number.
- Change the Noise Gate Threshold value using the LEVEL Parameter knob. The larger the setting, the louder the signal must be to open the gate. The smaller the setting, the softer the sound needed to open the gate. The Parameter ranges from 0 to 8.

0= -90dB(off)	5= -55dB
1= -75dB	6= -50dB
2= -70dB	7= -45dB
3= -65dB	8= -40dB
4= -60dB	

- Exit the Noise Gate Threshold/Utility by turning the Program wheel.

NOTE: The factory default Threshold is 2.

BYPASSING THE TSR-6

This function lets you bypass the TSR-6 and all of its effects completely. The procedure is as follows:

- Turn the Program wheel until **00** appears in the display window. The TSR-6 bypass function can also be accessed via MIDI, using MIDI Program Change 00.

RE-INITIALIZING THE TSR-6

This function allows you to restore the contents of the TSR-6's user memory to the original factory condition.

WARNING: Performing this function will destroy all user-Programmed data. All such data will be lost forever!

- Plug in the TSR-6 while holding down the <EQ> button.
- When **FR** appears in the display window, press the <STORE> button. Once you have pressed the store button, the display will run through numbers 0 to 98, showing the reinitialization of the programs is complete.

SECTION 4 - APPENDIX

PRESET LIST

1	Halls	Large	Bright	Halls are probably the most commonly used type of reverb. This generic do-it-all ambience works especially well with acoustic type instruments (Piano, Strings, Woodwinds, Horns, etc.)
2			Warm	
3			Dark	
4		Medium	Bright	
5			Warm	
6			Dark	
7		Small	Bright	
8			Warm	
9			Dark	
10	Cathedrals	Large	Bright	This is a very deep reverb with extra bottom end. Perfect for the 'Phantom' Opera Organ, it also works very well for fattening string or synth pads.
11			Warm	
12			Dark	
13		Medium	Bright	
14			Warm	
15			Dark	
16		Small	Bright	
17			Warm	
18			Dark	
19	Plates	Large	Bright	Plate reverb is typically thinner and brighter than other reverbs. The decay times are also not as long as the Cathedral. Plates are great for vocal and drum enhancement since they add a little 'sizzle' to the sound.
20			Warm	
21			Dark	
22		Medium	Bright	
23			Warm	
24			Dark	
25		Small	Bright	
26			Warm	
27			Dark	
28	Chambers	Large	Bright	Chambers can help a great deal to add realism to dry, sterile sounds. The Chamber reverbs can add nice natural ambience characteristics to any sound without being too overwhelming or interfering with the original sound.
29			Warm	
30			Dark	
31		Medium	Bright	
32			Warm	
33			Dark	
34		Small	Bright	
35			Warm	
36			Dark	
37	Rooms	Large	Bright	Rooms can often be used to bring a dry sample or synth back to life. Drum samples, for example, usually benefit from adding room reflections to their 'close mic' sound.
38			Warm	
39		Medium	Bright	
40			Warm	
41		Small	Bright	
42			Warm	
43	Gated	Decaying-Long		A short 'burst' of reverb. Can also be used as a small room.
44		Decaying-Short		
45		Linear-Long		A non-decaying reverb that cuts off abruptly. Perfect for fattening up drums.
46		Linear-Short		
47		Reverse		Great for reverse sound effects.
48	Stereo Delay	Large	Bright	A true stereo delay with delay time and feedback parameters.
49			Warm	
50			Dark	

51	Stereo Ping Pong Delay	640ms	A true stereo Delay. Gives the illusion that the sound is bouncing back and forth (L/R).
52		640ms - Triplet	
53		640ms - Syncopated triplet	
54	-Series- Delay & Reverb	Stereo 300ms/0%FB->Reverb	The stereo inputs feed a Delay that feeds into a Hall Reverb. Delay Time, Reverb Decay and Effect balance can be adjusted.
55		Stereo 300ms/5%FB->Reverb	
56		Stereo 300ms/15%FB->Reverb	
57		Stereo 300ms/25%FB->Reverb	
58	-Dual- Delay & Reverb	L)600ms/0%FB R)Reverb	The left input feeds the Delay while the right input feeds the Reverb.
59		L)600ms/5%FB R)Reverb	
60		L)600ms/15%FB R)Reverb	
61		L)600ms/25%FB R)Reverb	
62	-Series- Mod & Reverb	Stereo Detuner->Reverb	The stereo inputs feed a Mod effect which feeds into a Hall Reverb. The Balance control (3rd Parameter knob) can be turned counter-clockwise allowing the use of Detune, Chorus, Flanger, or Tremolo as a single effect.
63		Stereo Shallow Chorus->Reverb	
64		Stereo Deep Chorus->Reverb	
65		Stereo Shallow Flange->Reverb	
66		Stereo Deep Flange->Reverb	
67		Stereo Shallow Tremolo->Reverb	
68	-Parallel- Mod & Reverb	Stereo Deep Tremolo->Reverb	The left and right inputs feed both the Mod effect and the Hall Reverb. If the Series effect combinations are a little too processed, try these parallel effects instead.
69		Stereo Detuner+Reverb	
70		Stereo Shallow Chorus+Reverb	
71		Stereo Deep Chorus+Reverb	
72		Stereo Shallow Flange+Reverb	
73	-Dual- Mod & Reverb	Stereo Deep Flange+Reverb	The left input feeds the Mod effect and the right feeds the Hall Reverb. When connected to two aux sends of a mixing console, the TSR-6 acts like two boxes!
74		L)Detuner R)Reverb	
75		L)Shallow Chorus R)Reverb	
76		L)Deep Chorus R)Reverb	
77		L)Shallow Flange R)Reverb	
78		L)Deep Flange R)Reverb	
79	-Series- Mod & Delay	L)Shallow Tremolo R)Reverb	The stereo inputs feed the Mod effect which feeds into a Delay. These combinations of effects can add more dimensions to a sound without the "thickness" associated with Reverb. The maximum Delay time is 640ms.
80		L)Deep Tremolo R)Reverb	
81		Stereo Detuner->Delay	
82		Stereo Shallow Chorus->Delay	
83		Stereo Deep Chorus->Delay	
84		Stereo Shallow Flange->Delay	
85	-Parallel- Mod & Delay	Stereo Deep Flange->Delay	The left and right inputs feed both the Mod effect and the Delay. The maximum Delay time is 640ms.
86		Stereo Shallow Tremolo->Delay	
87		Stereo Deep Tremolo->Delay	
88		Stereo Detuner+Delay	
89		Stereo Shallow Chorus+Delay	
90	-Dual- Mod & Delay	Stereo Deep Chorus+Delay	The left input feeds the Mod effect and the right feeds the Delay. When connected to two aux sends of a mixing console, the TSR-6 acts like two boxes! Maximum Delay time is 980ms.
91		Stereo Shallow Flange+Delay	
92		Stereo Deep Flange+Delay	
93		L)Detuner R)Delay	
94		L)Shallow Chorus R)Delay	
95		L)Deep Chorus R)Delay	
96	-Dual- Mod & Delay	L)Shallow Flange R)Delay	
97		L)Deep Flange R)Delay	
98		L)Shallow Tremolo R)Delay	
99		L)Deep Tremolo R)Delay	
00	Bypass		

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SPECIFICATIONS

A/D Converter: 18 bit 128 times oversampled Delta Sigma
D/A Converter: 20 bit 64 times oversampled Delta Sigma
Sampling Frequency: 46.875 kHz

DSP Section:

Architecture: Static-Dynamic Instruction Set Computer (S-DISC™)
Digital Signal Path Width: 24 bits
Internal Data Path Width: 48 bits
Dynamic Delay Memory: 64k x 20 bits (1.40 seconds)
Static Delay Memory: 256 24-bit registers (5.46 milliseconds)
Data ALU Processing: 12.0 MIPS
Address ALU Processing: 18.0 MIPS
Multiplier Size: 24 bits x 24 bits

Input Section:

Connector: 1/4" Balanced TRS
Nominal Level: +4 dBu
Maximum Level: +18 dBu
Impedance: 20 Kohms

Output Section:

Connector: 1/4" Impedance Balanced TRS
Nominal Level: +4 dBu
Maximum Level: +14 dBu
Impedance: 51 ohms

General:

Frequency Response: 20 Hz. - 20 kHz. +0, -3 dB
S/N ratio: Greater than 90 dB; ref = max signal, 22 kHz measurement bandwidth
Total Harmonic Distortion: Less than 0.04% (1 kHz.)
Memory Capacity:
 Factory: 99 Settings
 User: 99 Settings
Power Requirements:
 US and Canada: 120 V AC, 60 Hz
 Japan: 100 V AC, 50/60 Hz
 Europe: 230 V AC, 50 Hz
 UK: 240 V AC, 50 Hz
Power Consumption: 18 watts
Dimensions: 19" (482 mm) W x 1.75" (44 mm) H x 4.5" (115 mm) D

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