

TS-10 | TS-12

MIDI | SysEx Implementation Specification V.2.0



scan and pdf creation by TRON | tron.de@gmx.de

1 Introduction and Overview

This section describes the MIDI System Exclusive (SysEx) communication protocol used when the TS is communicating with an external computer (EXT). The protocol is designed to aid the implementation of editing programs running on EXT. The commands described here allow editor/librarian programs to collect and alter information about presets, programs, and the tracks within the TS. *The TS-12 is identical to the TS-10 with respect to the SysEx implementation except as noted.*

1.1 Universal System Exclusive Device Inquiry Message

The TS supports the MIDI Device Inquiry message which allows instruments and computers to ascertain the identity of the unit(s) to which they are connected via MIDI. The TS responds to the following Identity Request message by sending an Identity Reply message. The TS will respond to the inquiry if the channel information in the message contains *either* the base MIDI channel of the TS *or* the all channel broadcast code (\$7F) but not both.

11110000	F0	System Exclusive status byte
01111110	7E	Non Real Time message code
0000nnnn	0x	Base MIDI channel number
<i>or</i>		
01111111	7F	All Channel Broadcast code
00000110	06	General Information message code
00000001	01	Identity Request message code
11110111	F7	End of System Exclusive

1.2 System Exclusive Device Identity Reply Message

The following Identity Reply message contains information about the TS, and is transmitted in response to an Identity Request.

11110000	F0	System Exclusive status byte
01111110	7E	Non Real Time message code
0000nnnn	0x	Base MIDI channel number
00000110	06	General Information message code
00000010	02	Identity Reply message code
00001111	0F	ENSONIQ manufacturer's code
00000101	07/05	TS Product Family code - LSByte
00000000	00	TS Product Family code - MSByte
00000000	mm	TS Family Member (Model ID) code LSByte
00000000	00	TS Family Member (Model ID) code MSByte
00000000	00	Software revision information
00000000	00	(not used)
0nnnnnnn	NN	Major Version Number (integer portion)
0nnnnnnn	NN	Minor Version Number (decimal fraction portion)
11110111	F7	End of System Exclusive

Note: The TS Family Member (Model ID) code LSByte is set to **mm** to identify the model. This difference appears only in this Identity Reply message; all other messages have the standard TS Product Family header information. Here are the Family Member codes:

00000000	00	TS-10 Family Member (Model ID) code LSByte
00000001	01	TS-12 Family Member (Model ID) code LSByte

2 MIDI System Exclusive Packet Pieces

A packet is a message in the form of a MIDI data stream. Each packet can be divided into three sections or pieces. The first and last packet pieces form the *frame* for a message. The message contains the commands described in section 3. Every message must be preceded with a SysEx head and followed with a SysEx tail. A complete packet looks like this:

SysEx Head Message SysEx Tail

2.1 MIDI System Exclusive Packet Head

This is the common MIDI system exclusive header which must be used on all system exclusive messages to and from the TS. These six bytes are always sent preceding the message portion of the packet. The General TS Family Member Code in this header may be different from the TS Family Member code in the Device Identity Reply message in order to allow transfer of common messages between other TS Product Family members and the original TS-10. The SysEx Device ID number in the message must match the current system setting or the message will be ignored.

11110000	F0	System Exclusive status byte
00001111	0F	ENSONIQ Code
00000101/0111	07/05	TS Family ID Code
00000000	00	General TS Family Member (Model ID) Code
0000nnnn	0x	SysEx Device ID number (0..15)
00000nnn	0x	Message Type (see section 3)

2.2 MIDI System Exclusive Packet Tail

For every head there is a tail. The tail follows the message portion, and is the last byte of every complete SysEx packet.

11110111	F7	End of System Exclusive
----------	----	-------------------------

2.3 Message Format

The TS message format within the packet frame allows 8 bit data bytes to be transmitted and received using the 7 bit data of MIDI. The MSB of the data bytes must always be a zero, so the bytes are converted to two 4 bit nybbles. These nybbles are converted to bytes whose upper four bits are all zero for transmission. Note that bytes whose value is zero must still be nybbled and sent as two bytes to preserve the expected MIDI byte counts. This is a description of the format of all data bytes within the packet frame as they are transmitted or received via MIDI. The details of each message are given in section 3.

0000HHHH	H = Hi 4 bits of data byte - transmitted first
0000LLLL	L = Lo 4 bits of data byte

This represents how the 8 bit byte HHHHLLLL would be transmitted.

2.4 Receiver Errors

If the message received by the TS is not understood, then an error message may be displayed and an error message will be sent as described in section 3.2. Errors typically occur when the MIDI cable is accidentally unplugged during a long dump message such as an All Programs Dump message. If EXT cannot handle the error message, then the displayed message will prompt the user to retransmit the original message after re-connecting the MIDI cable or otherwise correcting the cause of the error.

3 Message Type List

The next few sections describe the messages to be used between EXT and TS. The message type corresponds to the last byte of the system exclusive packet head described in section 2.1.

Note: The SysEx messages outlined below appear as an ordered description of bytes which do not necessarily represent the MIDI format described in section 2.3. Remember, full 8-bit data bytes are always sent as two "nybble-ized" bytes. Message types are part of the head and are sent as bytes, but Command types are considered data and are sent as two nybbles.

3.1 Command Messages (Message Type = 00)

Messages which need some interpretation by the receiver are called *command messages*.

Every command message is transmitted using the message format described in section 2.3.

The first byte of each command message is the command type, which follows the message type byte in the packet head. The command type is shown in the section headings.

3.1.1 Virtual Buttons (Command Type = 00)

EXT can simulate button presses from the front panel of the TS by sending this command. Sending the listed button numbers in a command will simulate a single button down being held *down*. Button *up* commands add an offset of 96 to the the button down numbers.

The button number follows the command type byte in the message. Remember to send a button up command for every button down command that is sent. *Note: a delay of 2-300 msec between button commands, or at least pairs of button commands, is recommended.*

3.1.1.1 Button Numbers

Logical Number	Front Panel Button Name	Logical Number	Front Panel Button Name
<i>Standard TS button numbers:</i>			
0	bank 0	26	Wave
1	bank 1	27	Pitch
2	bank 2	28	Pitch Mod
3	bank 3	29	Filters
4	bank 4	30	Output
5	bank 5	31	LFO
6	bank 6	32	Env1
7	bank 7	33	Env2
8	bank 8	34	Env3
9	bank 9	35	Effects (Programming)
10	BankSet	39	Select Voice
11	Sounds	40	Copy
12	Presets	41	Write
13	Storage	42	Compare
14	up arrow, INC	43	Mix/Pan
15	down arrow, DEC	44	Attack/Release
16	soft key 0, top left	45	Brightness/Timbre
17	soft key 1, top middle	46	Key Zone
18	soft key 2, top right	47	Tuning
19	soft key 3, bottom left	48	Controller Enables
20	soft key 4, bottom middle	49	Performance Options
21	soft key 5, bottom right	50	Track MIDI
22	System	51	Track Effects
23	MIDI Control	52	Tracks 1..6
24	Program Control	53	Tracks 7..12
25	Mod Mixer	55	Replace Track Program

Logical Number	Front Panel Button Name	Logical Number	Front Panel Button Name
<i>TS – sequencer specific button numbers:</i>			
36	Seq Control	57	Edit Seq
37	Click	58	Edit Track
38	Locate	61	Record
54	Sequence Bank Select	62	Play
56	Edit Song	63	Stop
<i>TS – footswitch simulation button numbers:</i>			
59	Footswitch 1	60	Footswitch 2

*Example:
(in hexadecimal notation, assuming Device ID = 01, transmitted as 00)*

Header	Msg	Cmd	Button	EOX	
F0 0F 07 00 00	00	00 00	00 0E	F7	Up Arrow button down
F0 0F 07 00 00	00	00 00	06 0E	F7	Up Arrow button up

3.1.2 Parameter Change (Command Type = 01)

Single parameters can be edited on the TS by EXT using this command. Since this is a short message relative to the much longer bulk dump of a complete program, program editors running on EXT can change single parameters by using this command faster than by sending a complete program dump when only one or a few parameters change.

This message is transmitted by the TS when parameters are edited if SYS-EX=ON and SEND-PARAMS=ON on the MIDI Control page.

Absolute parameter values depend on the parameter page and slot numbers which uniquely define each parameter. Slot numbers are equivalent to soft button numbers numbered clockwise from upper left 0 to 5. See section 5 of this document for the parameter definitions. Most parameter values are contained in the low byte of the absolute value word, but some parameter types, including key range and word types, use the whole word. *Remember — these bytes are transmitted as nybbles.*

00000001	01	Command Type
00000vvv	0v	Voice Number, [0..5]
0pppppppp	0p	Parameter Page Number, [0..127]
00000sss	0s	Parameter Slot Number, [0..5]
iiiiiiii	ii	Multi Param Index, [0..n or 255 if void]
HHHLLLLL	HL	Absolute Value Hi Byte, [0..255]
hhhlllll	hl	Absolute Value Lo Byte, [0..255]

Parameter Page Numbers are as follows:

0..3	System pages
4..6	MIDI Control pages
7..9	Program Control pages
10..35	Program Voice parameter pages
36..45	Program Effect parameter pages
46..99	undefined
100..109	Select Voice and Option Edit pages
110..255	undefined

Parameter Page Numbers 100..109 are used for the Select Voice page and all of its related pages. For each of the program options there is a variant of the select voice page and one or more edit pages. Page number values above 109 will cause an error message to be returned and will be ignored by the TS.

100	Select Voice page
101	Select Voice page with Pitch-Table program option active
102	Select Voice page with Wave-List program option active
103	Select Voice page with Drum-Map program option active
104	Pitch-Table Editor page
105	Pitch-Table Calculator page
106	Wave-List Editor page
107	Wave-List Pitch editor page
108	Wave-List Time editor page
109	Drum-Map Editor page

Refer to Section 5 for parameter definitions.

This example sets SEND-PARAMS=ON on the MIDI Control page.

Example:

<i>Transmitted hex</i>	<i>Meaning</i>	<i>Actual decimal</i>
<i>F0 0F 07 00</i>	<i>Header</i>	
<i>00</i>	<i>Device ID</i>	<i>01</i>
<i>00</i>	<i>Message Type</i>	
<i>00 01</i>	<i>Command</i>	<i>01</i>
<i>00 00</i>	<i>Voice</i>	<i>00</i>
<i>00 06</i>	<i>Page</i>	<i>06</i>
<i>00 05</i>	<i>Slot</i>	<i>05</i>
<i>0F 0F</i>	<i>Multi Param Index</i>	<i>255</i>
<i>00 00</i>	<i>Value Hi Byte</i>	<i>00</i>
<i>00 01</i>	<i>Value Lo Byte</i>	<i>01</i>
<i>F7</i>	<i>EOX</i>	

3.1.3 Edit Change Status (Command Type = 02)

This command is only *transmitted* by the TS; it is not received. It allows the external editor to retain synchronization with the compare buffer in the TS. The edit change status command is sent whenever an edit operation initiated from the front panel of the TS causes more than one parameter to change. The edit change status command will always be preceded by at least one parameter change message. Although the TS will send parameter change messages, it may not be able to send the new value of every parameter that changed, due to the complexities of internal editing. When EXT receives this message, it should request a complete program dump to re-establish editing sync. The command type is the only byte in this command.

Note: The TS does not transmit the following Dump Request commands (command types 05 to 0A). The command type is the only byte in these commands.

3.1.4 Single Program Dump Request (Command Type = 03)

The TS will dump the current program using the bulk dump message described in section 3.3.1 when it receives this command. If the current program is being edited, the edited version of the program will be transmitted.

3.1.5 Single Preset Dump Request (Command Type = 04)

The TS will dump the current preset using the bulk dump message described in section 3.3.3 when it receives this command. If the current preset is being edited, the edited version of the preset will be transmitted.

3.1.6 Track Parameter Dump Request (Command Type = 05)

The TS will dump the track parameters using the bulk dump message described in section 3.3.7 when it receives this command.

3.1.7 Dump Everything Request (Command Type = 06)

The TS will dump the internal RAM program banks, the internal RAM preset banks, and the track parameters using the bulk dump messages described in section 3.3 when it receives this command. Each dump is a separate message, i.e. the messages are not combined into one.

3.1.8 Internal Program Bank Dump Request (Command Type = 07)

The TS will dump the internal RAM program banks using the bulk dump message described in section 3.3.2 when it receives this command.

3.1.9 Internal Preset Bank Dump Request (Command Type = 08)

The TS will dump the internal RAM preset banks using the bulk dump message described in section 3.3.4 when it receives this command.

Sequence Dump Protocol: Since the receiver of a sequence dump message must be prepared to store the sequence data, sequence dumps are performed using two messages from the transmitter and a handshaking message from the receiver. The transmitter sends the dump command which informs the receiver of the next message. The receiver should respond with an error message containing an ACK or NAK error code (see section 3.2.1). If the receiver does not respond within one second, the transmitter will send the dump message anyway. This timeout feature allows "dumb" System Exclusive recorders to store TS sequence data. If the receiver responds with a NAK error code, the transmitter should not send the dump message.

Note: If the TS sequencer software is not loaded, the receiving TS will respond with a NAK error message to any sequence dump command.

3.1.10 Single Sequence Dump (Command Type = 09)

This message is the first message of a sequence dump. The message contains the size of the sequence data which will follow in the single sequence dump message.

00001011	0B	Command Type
HHHHHHHH	HH	Sequence Data Size in bytes Hi Byte Hi Word
hhhhhhhh	hh	Sequence Data Size in bytes Lo Byte Hi Word
LLLLLLLL	LL	Sequence Data Size in bytes Hi Byte Lo Word
llllllll	ll	Sequence Data Size in bytes Lo Byte Lo Word

Note: A Track Parameter bulk dump message will be transmitted after the completion of the single sequence dump. This will allow a receiving TS to be configured for sound expansion, i.e. any sequence track in the TS can have a MIDI status which will allow the receiving TS to respond properly.

3.1.11 All Sequence Memory Dump (Command Type = 10)

This message is the first message of a complete sequence memory dump. The message contains the size of the sequence data which will follow in the all sequence dump message.

00001100	0C	Command Type
HHHHHHHH	HH	Sequence Data Size in bytes Hi Byte Hi Word
hhhhhhhh	hh	Sequence Data Size in bytes Lo Byte Hi Word
LLLLLLLL	LL	Sequence Data Size in bytes Hi Byte Lo Word
llllllll	ll	Sequence Data Size in bytes Lo Byte Lo Word

3.1.12 Single Sequence Dump Request (Command Type = 11)

The TS will dump the currently selected sequence using the bulk dump message described in section 3.1.10 when it receives this command. The command type is the only byte in this command.

3.1.13 All Sequence Dump Request (Command Type = 12)

The TS will dump all sequence memory using the bulk dump message described in section 3.1.11 when it receives this command. The command type is the only byte in this command.

3.2 Error Messages (Message Type = 01)

Error messages are transmitted by the TS when an error occurs while processing any of the command messages described in section 3.1. The TS ignores error messages unless a sequence dump is being processed.

3.2.1 Command Message Error Codes

These codes are the data byte of error messages.

Code	Name	Meaning
00	NAK	The preceding command message could not be processed. The receiver is busy or the message is unintelligible. The preceding dump command is not acceptable.
01	INVALID PARAMETER NUMBER	The parameter voice, page, or slot in the preceding parameter value message doesn't make sense.
02	INVALID PARAMETER VALUE	The parameter value in the preceding parameter value message is out of range.
03	INVALID BUTTON NUMBER	The button number in the preceding virtual button message doesn't correspond to any real button number.
04	ACK	The preceding dump command is acceptable.

3.3 Bulk Dumps of Programs, Presets, Track Parameters, and Sequences

Bulk dump data messages are transmitted using the message format described in section 2.3. The message type byte, which is part of the system exclusive header, is given in hexadecimal with the name of the dump message. The actual data bytes for programs, presets, and sequences are described in section 4. The MIDI data byte lengths are listed in decimal for each message type, and represent the actual byte length doubled (to account for nybbblization) plus the header, tail and any other message overhead.

3.3.1 One Program (Message Type = 03)

Number of actual data bytes = 616

MIDI message length = 1232 + head and tail = 1239

In response to a request, the current selected program is transmitted. If the compare buffer is active (the Compare LED is on), then the program in the compare buffer will be transmitted. If this message is received, the new program will be put into the compare buffer so it can be subsequently written to a User RAM program location. Remember that the compare buffer is over-written by the incoming data and its previous contents are lost. The parameter block structure is described in section 4.1.

3.3.2 Program BankSet (Message Type = 04)

Number of actual data bytes = $616 * 60 = 36960$

MIDI message length = 73920 + BankSet number + head and tail = 73928

All 60 programs in the 10 program banks from either one of the 2 User RAM BankSets are contained in this message. The BankSet number which follows the header identifies the source/destination User RAM Bankset.

3.3.3 One Preset (Message Type = 05)

Number of actual data bytes = 118

MIDI message length = 236 + head and tail = 233

In response to a request, the currently selected preset is transmitted. If the preset edit buffer is active (*EDITED*), then the edited preset will be transmitted. If this message is received, the new preset will be put in the preset edit buffer so it can be subsequently written to any User RAM preset location. The parameter block structure is described in section 4.2.

3.3.4 Preset BankSet (Message Type = 06)

Number of actual data bytes = $118 * 60 = 7080$

MIDI message length = $14160 + \text{BankSet number} + \text{head and tail} = 14168$

All 60 presets in the 10 presets banks from either one of the 2 User RAM BankSets are contained in this message. The BankSet number which follows the header identifies the source/destination User RAM Bankset.

3.3.5 Single Sequence Dump (Message Type = 07)

MIDI message length = variable depending on amount of sequence data

This message is transmitted according to the sequence dump protocol described before section 3.1.12. It contains sequence data and track parameters.

3.3.6 All Sequence Dump (Message Type = 08)

MIDI message length = variable depending on amount of sequence data

This message is transmitted according to the sequence dump protocol described before section 3.1.12. It contains global sequence parameters, sequence data, and sequence track parameters.

3.3.7 Track Parameters (Message Type = 09)

Number of actual data bytes = $492 (41 * 12) + 12 + 40 = 544$

MIDI message length = $1088 + \text{head and tail} = 1095$

Track parameter data for 12 tracks (41 bytes each), the track status array (12 bytes), and the sequence/song effect parameters (40 bytes) are transmitted. The parameter block structure is described in section 4.3.

4 Parameter Block Data Descriptions

This is a description of the parameter blocks transmitted using the bulk dump messages described in section 3.3. The names and byte offsets of each block parameter are given. The parameter value ranges are included in section 5. The following byte layout is the internal representation and not the MIDI byte format which is described in section 2.3.

4.1 Program Parameters

The first group of parameters through byte offset 92 describe one of the six possible voices in a program. This same structure is repeated with an additional offset of 92 for each of the other five voices. When the program has an option enabled (Pitch Table, Wave List or Drum Map), voices 5 and 6 are replaced with the option data. All of the global program parameters are at the bottom of this list. These parameter descriptions do not reflect the literal names shown on the TS display. Refer to the parameter definitions in section 5 for that information.

Byte Offset	Parameter Description
0	Env1 Release Mod Amount
1	Env1 Attack Time
2	Env1 Peak Level
3	Env1 Decay Time 1
4	Env1 Breakpoint 1
5	Env1 Decay Time 2
6	Env1 Breakpoint 2
7	Env1 Decay Time 3
8	Env1 Sustain Level
9	Env1 Release Time
10	Env1 Level Velocity Sensitivity
11	Env1 Attack Time Velocity Sensitivity
12	Env1 Keyboard Tracking
13	Env1 Mode (hi nybble) and Velocity Curve (lo nybble)
14	Env2 (same structure as Envelope 1)
28	Env3 (same structure as Envelope 1)
42	Pitch Root Key
43	Pitch Fine Tune
44	Pitch Table
45	Pitch Env1 Modulation Amount
46	Pitch LFO Modulation Amount
47	Pitch Glide (hi nybble) and Pitch Modulation Source (lo nybble)
48	Pitch Modulation Amount
49	Glide Time
50	Bend Range

Byte Offset	Parameter Description
51	Filter 1 Cutoff
52	Filter 1 Keyboard Modulation Amount
53	Filter 1 Env2 Modulation Amount
54	Filter 1/2 Mode (hi nybble) and Filter 1 Modulation Source (lo nybble)
55	Filter 1 Modulation Amount
56	Filter 2 Cutoff
57	Filter 2 Keyboard Modulation Amount
58	Filter 2 Env2 Modulation Amount
59	Filter 2 Modulation Source
60	Filter 2 Modulation Amount
61	Volume Keyboard Scaling
62	Volume Fade Key Zone Low
63	Volume Fade Key Zone High
64	Volume
65	Pan Mod Source (hi nybble) and Volume Mod Source (lo nybble)
66	Volume Modulation Amount
67	Volume Timbre Modulation Offset
68	Pan
69	Pan Modulation Amount
70	Voice Priority (hi nybble) and Output Routing (lo nybble)
71	LFO Waveshape (hi nybble) and LFO Mod Source (lo nybble)
72	LFO Depth Mod Amount
73	LFO Depth
74	LFO Restart Mode (hi nybble) and LFO Speed Mod Source (lo nybble)
75	LFO Speed Modulation Amount
76	LFO Speed
77	LFO Delay Time
78	LFO Phase
79	Waveform (WaveList Start)
80	Wave Class
81	Wave Direction (hi nybble) and Wave Mod Source (lo nybble)
82	Wave Mod Amount
83	Wave Start/Index (WaveList Loop Start)
84	Wave Shift (WaveList Loop End)
85	Wave Delay Time (word = 2 bytes)
87	Noise Source Rate
88	Mixer Curve (hi nybble) and Mixer Mod Source 1 (lo nybble)
89	Mixer Scaler (hi nybble) and Mixer Mod Source 2 (lo nybble)
90	Lo Velocity Threshold
91	Hi Velocity Threshold

(end of Voice 1 structure)

Byte Offset	Parameter Description
92	Voice 2 (same structure as Voice 1)
184	Voice 3 (same structure as Voice 1)
276	Voice 4 (same structure as Voice 1)
368	Voice 5 (same as Voice 1 or program option data, if enabled)
460	Voice 6 (same as Voice 1 or program option data, if enabled)
552	Program Name - (11 bytes or characters)
563	Program Patch 1 (lo 6 bits)
564	Program Patch 2 (lo 6 bits)
565	Program Patch 3 (lo 6 bits)
566	Program Patch 4 (lo 6 bits)
567	Pressure Mode ¹ (hi nybble) and Program Option (lo nybble)
568	Program Category
569	Program Patch Select Mode ¹ (hi nybble) and Restrike (lo nybble)
570	Program Timbre ¹
571	Program Release ¹
572	Program Attack ¹
573	Program Brightness ¹
574	Program Rate ¹
575	Program External Controller (XCTRL) ¹
576	Program Effect Parameters ²

Total size: 616 bytes

Notes:

1. These parameters are edited and stored with the program to serve as default values to be installed on the track along with the program, but actually function on the corresponding Preset Track pages.
2. The effect parameter block is 40 bytes long and the first byte is always the algorithm index. Refer to the Effect Parameter Definitions section for more details.

4.2 Preset Parameters

4.2.1 Preset Track Parameter Structure

The parameters from each of the three individual tracks of a Preset are stored as an array of variable size bit fields packed into 21 consecutive bytes.

Byte Offset	Bit Mask	Parameter Name
0	dddddddd	Detune (8 bits)
1	tttttttt	Transpose (8 bits)
2	Fmmmmmm	Mix (7 bits); F = FX-CNTRL switch
3	Axxxxxxx	XCNTRL (7 bits); A = All Notes Off switch
4	Rkkkkkkk	Key Zone Low Key (7 bits); R = Reset Controllers switch
5	skkkkkkk	Key Zone High Key (7 bits); S = Sustain switch
6	Mvvvvvvv	Vel.Range Low Key (7 bits); M = Mod Wheel switch
7	Pvvvvvvv	Vel.Range High Key (7 bits); P = Pitch Wheel switch
8	Pppppppp	MIDI Program number (7 bits); P = Prog Change ¹ switch.
9	Bbbbbbbb	MIDI Bank number (7 bits); B = Bank MSB switch
10	Pppppppp	Pan (7 bits); P = Pan Mode switch
11	0aaaaaaaa	Attack (7 bits); 0 = Sampled Sound number ² bit 0.
12	1rrrrrrrr	Release (7 bits); 1 = Sampled Sound number ² bit 1.
13	2bbbbbbb	Brightness (7 bits); 2 = Sampled Sound number ² bit 2.
14	3tttttttt	Timbre (7 bits); 3 = Sampled Sound number ² bit 3.
15	4aaaaaaaa	Rate (7 bits); 4 = Sampled Sound number ² bit 4.
16	vvvvCCCC	v = Vel. Sensitivity (4 bits); C = MIDI Channel (4 bits)
17	eeeeSSSS	e = Effect Bus (4 bits); S = MIDI Status (4 bits)
18	ppppPPPP	p = Pressure mode (4 bits); P = Patch Select (4 bits)
19	Sbbbbbbb	Track BankSet (7 bits); S = Sostenuto switch
20	pppppppp	Track Program (8 bits)

Notes:

1. The Track program Change switch bit was not implemented as of version 1.00.
2. The 5 bit number (0..31) defined by the 5 Sampled Sound number bits indicates that a sampled sound is active on the track if the number is in the range 0..19, reflecting the 20 total locations available in a fully-loaded system. Otherwise, the value 31 (\$1F) indicates that no sampled sound is active and is the only other value that should be used.
3. In Track status arrays, Preset tracks are 13..15 and Sequence tracks are 1..12.

4.2.2 Preset Dump Structure

A complete preset dump is composed of three sets of packed track parameters (63 bytes), followed by a 3 byte track status array containing information about layering, an effect parameter block (40 bytes), a name (11 characters), and a spare byte for a total of 118 bytes.

Byte Offset	Size	Parameter Name
0	21	Preset Track 0 parameters (see 4.2.1 above)
21	21	Preset Track 1 parameters (see 4.2.1 above)
42	21	Preset Track 2 parameters (see 4.2.1 above)
63	3	Preset Track status array (see note 3 in 4.2.1 above)
66	40	Preset Effect parameters
106	11	Preset Name
117	1	spare (reserved for future use)

4.3 Track Parameters

This message consists of specific track parameters from the 12 tracks, the track status array, and an effect definition.

Byte Offset	Parameter Name
0	Track 1 Bank Set number
1	Track 1 Program number
2	Track 1 Surrogate Bank Set number
3	Track 1 Surrogate Program number
4	Track 1 XCTRL
6	Track 1 Timbre
8	Track 1 Brightness
10	Track 1 Release
12	Track 1 Attack
14	Track 1 Rate (LFO/Wave-List)
16	Track 1 (Reserved)
18	Track 1 Mix
20	Track 1 Pan
22	Track 1 Effect Bus override
23	Track 1 Patch Select override
24	Track 1 Enables (byte 1)
25	Track 1 Enables (byte 2)
26	Track 1 MIDI Bank Select
27	Track 1 MIDI Program number
28	Track 1 MIDI Channel
29	Track 1 MIDI Pressure type (off,mono,poly)
30	Track 1 MIDI Status
31	Track 1 MIDI Status bit array
32	Track 1 Key Zone low key
33	Track 1 Transpose
34	Track 1 Key Zone high key
35	Track 1 Velocity Range lower limit
36	Track 1 Velocity Range upper limit
37	Track 1 Velocity Sensitivity
38	Track 1 Detune
39	Track 1 Pedal Mode
40	Track 1 Sampled Sound number

(end of Track 1 structure)

41	Track 2 parameters (same structure as Track 1)
82	Track 3 parameters (same structure as Track 1)
123	Track 4 parameters (same structure as Track 1)
164	Track 5 parameters (same structure as Track 1)
205	Track 6 parameters (same structure as Track 1)
246	Track 7 parameters (same structure as Track 1)
287	Track 8 parameters (same structure as Track 1)
328	Track 9 parameters (same structure as Track 1)
369	Track 10 parameters (same structure as Track 1)
410	Track 11 parameters (same structure as Track 1)
451	Track 12 parameters (same structure as Track 1)
492	Seq/Song Track status array (see note 3 in 4.2.1 above)
504	Tracks Effect Parameters

Note: The sequencer data format is not currently documented, so these blocks are only described in general terms.

4.4 Single Sequence Dump Parameters

This message consists of the data from one sequence and the sequence header.

Byte Offset	Parameter Name
0	Sequence Data
n	Sequence Header

4.5 All Sequence Dump Parameters

This message consists of the data for all of the defined sequences and songs, 60 sequence and song headers, and the global sequencer parameters.

Byte Offset	Parameter Name
0	Sequence Data Offsets - A table of 60 long word offsets (one for each sequence/song), with each entry containing the relative offset of the corresponding sequence/song data block from the beginning of the sequencer data block.
239	Sequence Data
n	Sequence Header Segment
n+header_size	Global Parameters

In an unexpanded system, the Sequence Data segment can contain a maximum of 131,072 bytes. In an expanded system (with SQX-70), the maximum is 393,216 bytes. The individual Sequence Header size is 338 bytes. The complete Sequence Header Segment is 20,408 bytes, which includes 60 headers, a table of pointers and some additional overhead. The Global Parameters segment is 38 bytes. Remember that all of this data is transmitted via MIDI as nybbled bytes, so the actual number of bytes transmitted is twice as large for each component of the dump. The size of the largest dump for an unexpanded TS in actual transmitted MIDI bytes may be calculated as follows:

<i>component</i>	<i>actual size in bytes</i>	
SysEx Header	6	
Data Pointer Table	480	240 nybbled
Sequence Data	262,144	131,072 nybbled
Sequence Headers	40,816	20,408 nybbled
Global Parameters	76	38 nybbled
End of Exclusive	1	
<i>Total Number of bytes sent:</i>	<i>303,543</i>	

This implies that an expanded system would have a maximum dump size that was larger by twice the difference in the Sequence Data segment size (i.e. two times 393,216 - 131,072 or 524,288 bytes). Therefore, the largest dump size for a fully expanded system would be a total of 827,811 MIDI bytes (or 1617 blocks).

5 Parameter Definitions

General Notes

At the top of every parameter listing page there are some column labels which describe the meaning of the parameter description fields. These are defined as follows:

Pg	Page number (36..45)
Sl	Slot number (0..5)
Mi	Multi-param index (00..n or -- if not a multi-param slot)
Off	parameter Offset in 40 byte effect data structure
Name	parameter Name as displayed on TS screen
Internal	parameter range as used by the TS Internally (decimal)
Displayed	parameter range as displayed on TS screen (see Table type notes)

Note that the *listed* slot number should be used in all Parameter Change messages (section 3.1.2) even in cases where more than one slot number is assigned to a parameter. Messages containing the alternate slot numbers will be ignored.

The parameter ranges described contain both the actual internal parameter values and the values displayed by the system. Parameter change messages sent to the TS should use these actual internal values.

Parameter Types

Unsigned Int	8 bits	0..255	
Pos Int	7 bits	0..127	
Signed Int	8 bits	-128..127	Two's complement
Offset Int	8 bits	0..255	Displayed with +1 offset (i.e. 1..256)
Pos Frac	7 bits	0..127	Displayed as 00..99 using Fraction Table lookup
Signed Frac	8 bits	-128..127	Two's complement; displayed as -99..+99 using Fraction Table
Word	16 bits	0..65535	
Table	8 bits		Index to table of text entries
Table Lo	4 bits	0..15	Low nybble text table index
Table Hi	4 bits	0..15	High nybble text table index
Bit Table (#)	1 bit	0,1	Text table index; # is bit number in byte (switch)
Table Ptr	8 bits	0..255	Index to table of pointers to variable length text strings

Parameter names which are not displayed in UPPERCASE are descriptive and do not reflect what actually appears on the TS display screen. In some cases there is no associated parameter label shown.

Table type notes

The *Size* field is also included in the displayed range field and indicates the number of characters for the each of the table's entries. *Size*: ? indicates variable size table text fields used for Effect Modulation Destination parameters which display a variable length text string to describe the parameter selected for modulation. The range information which follows the *Size* data is enclosed in brackets [*range*] and contains either the actual text of the table entries, the minimum and maximum values of the table, or a reference to an external table definition.

Multi-param type notes

Multi-param types are indicated by numeric values in the Multi-param index field and with a decimal fraction digit (e.g. .2) in the parameter Name field. This decimal fraction digit does not appear on the actual TS display page. The value 255 (\$FF) is sent in this field if the parameter is not a multi param type.

Display Value Conversion

For “Pos Int” and “Signed Int” type parameters which are displayed as [0..99] or [-99..99] but stored internally as [0..127] or [-128..127], the following conversion table of 128 bytes is used to translate the internal values into displayed values. For negative internal values (\$80..\$FF), mask off the MSB or sign bit in order to get the table index (0..127) to use. There are sixteen entries per line in the table.

```

00,01,01,02,03,04,04,05,06,07,08,08,09,10,11,12
12,13,14,15,15,16,17,18,19,19,20,21,22,22,23,24
25,26,26,27,28,29,29,30,31,32,33,33,34,35,36,36
37,38,39,40,40,41,42,43,44,44,45,46,47,47,48,49
50,51,51,52,53,54,54,55,56,57,58,58,59,60,61,62
62,63,64,65,65,66,67,68,69,69,70,71,72,72,73,74
75,76,76,77,78,79,79,80,81,82,83,83,84,85,86,86
87,88,89,90,90,91,92,93,94,94,95,96,97,97,98,99

```

5.1 System Parameters

Pg	S1	M1	Off	Type	Label	Internal	Displayed
00	00	---	---	Signed Frac	TUNE	-128,127	-99 to +99 cents
00	02	---	---	Unsigned Int	PITCH-BEND	0,25	00, 01 to 12, 01H to 12H semitones.
Note: For TS-12, the TOUCH parameter uses a different table which contains more entries and its range is 0,13 instead of 0,8. The entry size is the same for both.							
00	03	---	---	Table	TOUCH	0,8	Size: 8 [Vel Curve Table - #8]
00	04	---	---	Unsigned Int	VEL-MAX	1,127	001 to 127
00	05	---	---	Table	PRESS	0,3	Size: 4 [SOFT, MED, FIRM, HARD]
01	01	---	---	Table	FOOT-SW1-L	0,11	Size: 9 [FtSw Mode Table - #2]
01	02	---	---	Table	SW1-R	0,11	Size: 9 [FtSw Mode Table - #2]
01	03	---	---	Table	PEDAL	0,1	Size: 3 [VOL, MOD]
01	04	---	---	Table	SW2-L	0,11	Size: 9 [FtSw Mode Table - #2]
01	05	---	---	Table	SW2-R	0,11	Size: 9 [FtSw Mode Table - #2]
02	01	---	---	Table	SLIDER	0,2	Size: 6 [NORMAL, TIMBRE, XCTRL]
02	02	---	---	Table	VOICE-MUTING	0,1	Size: 3 [OFF, ON]
02	04	---	---	Table	MIDI-TRK-NAMES	0,1	Size: 3 [OFF, ON]
02	05	---	---	Table	KBD-NAMING	0,1	Size: 3 [OFF, ON]
03	02	---	---	Table	PITCH-TABLE	0,35	Size: 11 [System Pitch Tables - #10]
Note: The next parameter is used for the TS-12 only!							
03	03	---	---	Table	PRESS-MODE	0,1	Size: 4 [CHAN, PSET]
03	05	---	---	Table Lo	WAKE-UP-MODE	0,5	Size: 8 [WakeUp Mode Table - #9]

5.2 MIDI Control Parameters

Pg	S1	M1	Off	Type	Label	Internal	Displayed
04	00	---	---	Offset Int	BASE-CHAN	0,15	01 to 16
04	01	---	---	Table	ALL-OFF	0,1	Size: 3 [OFF, ON]
04	02	---	---	Table	SEND	0,1	Size: 5 [BASE, TRACK]
04	03	---	---	Table	MODE	0,4	Size: 6 [OMNI, POLY, MULTI, MONO-A, MONO-B]
04	04	---	---	Table	VELS/XPOS	0,2	Size: 4 [SEND, RECV, BOTH]
04	05	---	---	Unsigned Int	XCTRL	0,127	000 to 127
05	00	---	---	Table	LOOP	0,1	Size: 3 [OFF, ON]
05	01	---	---	Table	CNTRLS	0,1	Size: 3 [OFF, ON]
05	02	---	---	Table	SONG-SEL	0,1	Size: 3 [OFF, ON]
05	04	---	---	Table	START/STOP	0,1	Size: 3 [OFF, ON]
05	05	---	---	Table	PROG-CHG	0,2	Size: 3 [OFF, ON, NEW]
06	00	---	---	Table	SYS-EX	0,2	Size: 3 [OFF, ON, OLD]
06	02	---	---	Offset Int	DEVICE-ID	0,15	01 to 16
06	05	---	---	Table	SEND-PARAMS	0,1	Size: 3 [OFF, ON]

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
----	----	----	-----	------	-------	----------	-----------

5.3 Program Parameters

Note: The next group of pages (07..10) are used for the program control parameters within a program. These parameters are grouped after the six sets of voice parameters in the program data structure.

07	01	—	568	Table	TYPE	0,31	Size: 8	[Prog Type Table - #3]
07	02	—	567	Table Lo	OPTION	0,4	Size: 8	[Program Option Table - #16]
07	03	—	567	Table Hi	PRESS	0,2	Size: 4	[OFF, KEY, CHAN]
07	04	—	569	Bit Table (7)	PATCH	0,1	Size: 4	[LIVE, HELD]
07	05	—	569	Pos Int	RESTRIKE	0,99	00 to 99	
08	00	—	572	Signed Int	ATCK	-64,63	-64 to +63	
08	01	—	573	Signed Int	BRIGHT	-64,63	-64 to +63	
08	02	—	574	Signed Int	RATE	-64,63	-64 to +63	
08	03	—	571	Signed Int	RELS	-64,63	-64 to +63	
08	04	—	570	Pos Int	TIMBRE	0,127	000 to 127	
08	05	—	575	Pos Int	XCTRL	0,127	000 to 127	
09	00	—	067	Signed Int	TIMBRE V1	-64,63	-64 to +63	
09	01	—	159	Signed Int	TIMBRE V2	-64,63	-64 to +63	
09	02	—	251	Signed Int	TIMBRE V3	-64,63	-64 to +63	
09	03	—	343	Signed Int	TIMBRE V4	-64,63	-64 to +63	
09	02	—	435	Signed Int	TIMBRE V5	-64,63	-64 to +63	
09	03	—	527	Signed Int	TIMBRE V6	-64,63	-64 to +63	

Note: The next group of pages (10..35) are used for the voice parameters within a program. There are actually six sets of these parameters (one set for each voice) which share these parameter definitions. The parameter offsets are listed for Voice 1 and an additional voice offset should be added to get the effective offset for voices 2..6. This voice offset = 92 (voice size) * voice number - 1.

10	01	—	088	Table Lo	SRC-1	0,15	Size: 5	[Mod Source Table - #1]
10	02	—	089	Table Lo	SRC-2	0,15	Size: 5	[Mod Source Table - #1]
10	04	—	089	Table Hi	SRC-2 SCALE	0,15	Size: 2	[0.1 to 8.0]
10	05	—	088	Table Hi	SHAPE	0,15	Size: 8	[Mod Shape Table - #4]

Note: The next seven pages (11..17) are used for the four different Wave page contexts. Page 11 is used for the TRANSWAVE class; pages 12 & 13 are used for the DRUM-MAP class; pages 14 & 15 are used with all of the remaining classes except WAVE-LIST which uses pages 16 & 17. These four groups of pages are mutually exclusive in normal operation and care should be exercised to ensure proper context when sending parameter change messages for these pages. The parameters have different meanings in the different contexts and share offsets in the program data structure. When changing wave page parameters, be sure that the wave class is set first, otherwise subsequent parameter values may be invalid. When the wave class is changed, the other wave parameters are reset to default values. The Wave Name parameter range depends on the Wave Class parameter setting. Each class has a fixed number of waves (see Wave Class Table below). The WAVELIST and DRUM-MAP classes are special in that they allow only one value (0) for the Wave Number parameter which is read-only (i.e. not editable).

11	00	—	079	Table	(Wave Name)	0,7	Size: 9	[Transwave Class Wave Names]
11	01	—	080	Table	(Wave Class)	13	Size: 12	[TRANSWAVE]
11	02	—	085	Word	DELAY	0,5001	0000 to 5000 msec, KYUP	
11	03	—	083	Pos Frac	INDEX	0,127	00 to 99	
11	04	—	081	Table Lo	MODSRC	0,15	Size: 5	[00 to 99]
11	05	—	082	Signed Frac	MODAMT	-127,127	-99 to +99	
12	00	—	079	Table	(Wave Name)	0	Size: 9	[DRUM-MAP] Read-Only!
12	01	—	080	Table	(Wave Class)	15	Size: 12	[DRUM-MAP]
12	02	—	085	Word	DELAY	0,5001	0000 to 5000 msec, KYUP	
12	05	—	081	Bit Table (7)	DIR	0,1	Size: 7	[FORWARD, REVERSE]
13	02	—	083	Pos Frac	SAMPLE-START-OFFSET	0,127	00 to 99	
13	04	—	081	Table Lo	START-MODSRC	0,15	Size: 5	[Mod Source Table - #1]
13	05	—	082	Signed Frac	MODAMT	-127,127	-99 to +99	
14	00	—	079	Table	(Wave Name)	0,?	Size: 9	[Wave Name Tables - #18]

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
14	01	--	080	Table	(Wave Class)	0,10	Size: 12 [Wave Class Table - #17]
14	02	--	085	Word	DELAY	0,5001	0000 to 5000 msec, KYUP
14	04	--	084	Signed Int	MULTISAMPLE-SHIFT	-60,60	-60 to +60
14	05	--	081	Bit Table (7)	DIR	0,1	Size: 7 [FORWARD, REVERSE]
15	02	--	083	Pos Frac	SAMPLE-START-OFFSET	0,127	00 to 99
15	04	--	081	Table Lo	START-MODSRC	0,15	Size: 5 [Mod Source Table - #1]
15	05	--	082	Signed Frac	MODAMT	-127,127	-99 to +99
16	00	--	079	Table	(Wave Name)	0	Size: 9 [WAVE-LIST] Read-Only!
16	01	--	080	Table	(Wave Class)	14	Size: 12 [WAVE-LIST]
16	02	--	085	Word	DELAY	0,5001	0000 to 5000 msec, KYUP
16	03	--	079	Offset Int	START-STEP	0,15	01 to 16
16	04	--	083	Offset Int	LOOPSTART	0,15	01 to 16
16	05	--	084	Offset Int	END	0,15	01 to 16
17	02	--	081	Table Hi	MOD-DESTINATION	0,5	Size: 10 [WaveList Mode Table - #15]
17	04	--	081	Table Lo	MODSRC	0,15	Size: 5 [00 to 99]
17	05	--	082	Signed Int	MODAMT	-15,15	-99 to +99

Note: The next two parameters share the same offset because they are edited using system global variables which are then packed into the program structure as the number of semitones of pitch offset.

18	00	--	042	Signed Int	OCTAVE	-4,4	-4 to +4 octaves
18	01	--	042	Signed Int	SEMITONE	-12,12	-11 to +11
18	02	--	043	Signed Frac	FINE	-127,127	-99 to +99
18	04	--	047	Table Hi	GLIDEMODE	0,5	Size: 8 [Glide Mode Table - #6]
18	05	--	049	Unsigned Int	GLIDETIME	0,99	00 to 99
19	00	--	047	Table Lo	MODSRC	0,15	Size: 5 [Mod Source Table - #1]
19	01	--	048	Signed Int	MODAMT	-99,99	-99 to +99
19	02	--	050	Table	BEND	0,26	Size: 3 [00 to 12, 00H to 12H, or SYS]
19	03	--	044	Table Lo	PITCHTEL	0,2	Size: 6 [SYSTEM, ALL-C4, CUSTOM]
19	04	--	045	Signed Frac	ENV1	-127,127	-99 to +99
19	05	--	046	Signed Frac	LFO	-127,127	-99 to +99
20	00	--	054	Table Hi	FILTER 1 Mode	0,3	Size: 9 [Filter 1 Mode Table - #13]
20	01	00	051	Pos Int	CUTOFF	0,127	000 to 127
20	01	01	051	Bit Table (7)	Track Brightness Mod	0,1	Size: 1 [blank or *]
20	02	--	052	Signed Frac	KBD	-127,127	-99 to +99
20	03	--	054	Table Lo	MODSRC	0,15	Size: 5 [Mod Source Table - #1]
20	04	--	055	Signed Frac	MODAMT	-127,127	-99 to +99
20	05	--	053	Signed Frac	ENV2	-127,127	-99 to +99
21	00	--	054	Table Hi	FILTER 2 Mode	0,3	Size: 9 [Filter 2 Mode Table - #14]
21	01	00	056	Pos Int	CUTOFF	0,127	000 to 127
21	01	01	056	Bit Table (7)	Track Brightness Mod	0,1	Size: 1 [blank or *]
21	02	--	057	Signed Frac	KBD	-127,127	-99 to +99
21	03	--	059	Table Lo	MODSRC	0,15	Size: 5 [Mod Source Table - #1]
21	04	--	060	Signed Frac	MODAMT	-127,127	-99 to +99
21	05	--	058	Signed Frac	ENV2	-127,127	-99 to +99
22	01	--	061	Signed Frac	KBD-SCALE	-128,127	-99 to +99, ZON (value -128)

Note: The next parameter (LO/HI-KEY) is actually two parameters in one slot but it is not implemented as a multi_param_type. It modifies the bytes at offsets 62 and 63 respectively.

22	02	--	062	Key Range	LO/HI-KEY	21,108	A0 to C8
22	03	--	064	Signed Int	VOL	-50,14	-50 to +14 dB
22	04	--	065	Table Lo	MODSRC	0,15	Size: 5 [Mod Source Table - #1]
22	05	--	066	Signed Frac	MODAMT	-127,127	-99 to +99
23	02	--	070	Table Lo	DESTINATION-BUS	0,3	Size: 3 [FX1, FX2, DRY, AUX]
23	03	--	068	Signed Int	PAN	-64,63	-64 to +63
23	04	--	065	Table Hi	MODSRC	0,15	Size: 5 [Mod Source Table - #1]
23	05	--	069	Signed Frac	MODAMT	-127,127	-99 to +99
24	02	--	070	Table Hi	VOICE-PRIORITY	0,2	Size: 3 [LO, MED, HI]
24	04	--	090	Pos Int	VELOCITY-WINDOW LO	0,127	000 to 127
24	05	--	091	Pos Int	VELOCITY-WINDOW HI	0,127	000 to 127

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
25	00	00	076	Pos Int	LFO RATE	0,99	00 to 99
25	00	01	076	Bit Table (7)	Track Rate Mod	0,1	Size: 1 [blank or *]
25	01	—	074	Table Lo	RATE MODSRC	0,15	Size: 5 [Mod Source Table - #1]
25	02	—	075	Signed Frac	RATE MODAMT	-127,127	00 to 99
25	03	—	073	Pos Frac	DEPTH	0,127	00 to 99
25	04	—	071	Table Lo	DEPTH MODSRC	0,15	Size: 5 [Mod Source Table - #1]
25	05	—	072	Signed Frac	DEPTH MODAMT	-127,127	-99 to +99
26	01	—	071	Table Hi	WAVESHAPE	0,6	Size: 8 [LFO Shape Table - #7]
26	02	—	074	Table Hi	RESTART-MODE	0,1	Size: 3 [OFF, ON]
26	03	—	078	Unsigned Int	PHASE	0,255	000 to 255
26	04	—	077	Unsigned Int	DELAY	0,99	00 to 99
26	05	—	087	Pos Frac	NOISE-RATE	0,127	00 to 99
27	01	00	001	Pos Int	ATTACK	0,99	00 to 99
27	01	01	001	Bit Table (7)	Track Attack Mod	0,1	Size: 1 [blank or *]
27	02	—	003	Unsigned Int	DECAY 1	0,99	00 to 99
27	03	—	005	Unsigned Int	DECAY 2	0,99	00 to 99
27	04	—	007	Unsigned Int	DECAY 3	0,99	00 to 99
27	05	00	009	Pos Int	RELEASE	0,99	00 to 99
27	05	01	009	Bit Table (7)	Track Release Mod	0,1	Size: 1 [blank or *]
28	01	—	002	Pos Frac	PEAK	0,127	00 to 99
28	02	—	004	Pos Frac	BREAK 1	0,127	00 to 99
28	03	—	006	Pos Frac	BREAK 2	0,127	00 to 99
28	04	—	008	Pos Frac	SUSTAIN	0,127	00 to 99
28	05	—	010	Pos Frac	VEL-LEV	0,127	00 to 99
29	00	—	013	Table Hi	MODE	0,2	Size: 6 [NORMAL, FINISH, REPEAT]
29	02	—	013	Table Lo	VEL-CURVE	0,9	Size: 8 [Env Vel Curves Table - #5]
29	03	—	012	Signed Frac	KBDTRK	-127,127	-99 to +99
29	04	—	011	Pos Frac	VEL-ATCK	0,127	00 to 99
29	05	—	000	Signed Frac	VEL-RELS	-128,127	-99 to +99
30	01	00	015	Pos Int	ATTACK	0,99	00 to 99
30	01	01	015	Bit Table (7)	Track Attack Mod	0,1	Size: 1 [blank or *]
30	02	—	017	Unsigned Int	DECAY 1	0,99	00 to 99
30	03	—	019	Unsigned Int	DECAY 2	0,99	00 to 99
30	04	—	021	Unsigned Int	DECAY 3	0,99	00 to 99
30	05	00	023	Pos Int	RELEASE	0,99	00 to 99
30	05	01	023	Bit Table (7)	Track Release Mod	0,1	Size: 1 [blank or *]
31	01	—	016	Pos Frac	PEAK	0,127	00 to 99
31	02	—	018	Pos Frac	BREAK 1	0,127	00 to 99
31	03	—	020	Pos Frac	BREAK 2	0,127	00 to 99
31	04	—	022	Pos Frac	SUSTAIN	0,127	00 to 99
31	05	—	024	Pos Frac	VEL-LEV	0,127	00 to 99
32	00	—	027	Table Hi	MODE	0,2	Size: 6 [NORMAL, FINISH, REPEAT]
32	02	—	027	Table Lo	VEL-CURVE	0,9	Size: 8 [Env Vel Curves Table - #5]
32	03	—	026	Signed Frac	KBDTRK	-127,127	-99 to +99
32	04	—	025	Pos Frac	VEL-ATCK	0,127	00 to 99
32	05	—	014	Signed Frac	VEL-RELS	-128,127	-99 to +99
33	01	00	029	Pos Int	ATTACK	0,99	00 to 99
33	01	01	029	Bit Table (7)	Track Attack Mod	0,1	Size: 1 [blank or *]
33	02	—	031	Unsigned Int	DECAY 1	0,99	00 to 99
33	03	—	033	Unsigned Int	DECAY 2	0,99	00 to 99
33	04	—	035	Unsigned Int	DECAY 3	0,99	00 to 99
33	05	00	037	Pos Int	RELEASE	0,99	00 to 99
33	05	01	037	Bit Table (7)	Track Release Mod	0,1	Size: 1 [blank or *]
34	01	—	030	Pos Frac	PEAK	0,127	00 to 99
34	02	—	032	Pos Frac	BREAK 1	0,127	00 to 99
34	03	—	034	Pos Frac	BREAK 2	0,127	00 to 99
34	04	—	036	Pos Frac	SUSTAIN	0,127	00 to 99
34	05	—	038	Pos Frac	VEL-LEV	0,127	00 to 99
35	00	—	041	Table Hi	MODE	0,2	Size: 6 [NORMAL, FINISH, REPEAT]
35	02	—	041	Table Lo	VEL-CURVE	0,9	Size: 8 [Env Vel Curves Table - #5]
35	03	—	040	Signed Frac	KBDTRK	-127,127	-99 to +99
35	04	—	039	Pos Frac	VEL-ATCK	0,127	00 to 99
35	05	—	028	Signed Frac	VEL-RELS	-128,127	-99 to +99

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
----	----	----	-----	------	-------	----------	-----------

Note: Pages 36..45 are used for Effect parameters and are described in the next section. Pages 46..99 are not defined, and the Select Voice and program option editor pages start at 100.

Select Voice (pages 100..103)

Note: Voices 5 and 6 are not available when a program option is active (PitchTable, WaveList, or DrumMap). This condition eliminates slots 04 & 05 on pages 101..103. The status information is displayed using the mute and solo indicators around the wave name associated with the voice.

100	00	--	---	Table	Voice 1 Status	0,2	[Off, On, Solo]
100	01	--	---	Table	Voice 2 Status	0,2	[Off, On, Solo]
100	02	--	---	Table	Voice 3 Status	0,2	[Off, On, Solo]
100	03	--	---	Table	Voice 4 Status	0,2	[Off, On, Solo]
100	04	--	---	Table	Voice 5 Status	0,2	[Off, On, Solo]
100	05	--	---	Table	Voice 6 Status	0,2	[Off, On, Solo]

Note: In the TS, the following program option editor parameters use global parameters for editing and then pack the results into the program data structure, so no offsets are listed. See the option data structure descriptions which follow to derive offsets.

Pitch Table editor parameters (pages 104..105)

104	03	--	---	Key Range	KEY	21,108	A0 to C7+
104	04	--	---	Key Range	(assigned key)	21,108	A0 to C7+
104	05	--	---	Pos Frac	CENTS	0,127	00 to 99
105	04	--	---	Key Range	KEY-RANGE START/END	21,108	A0 to C7+

Wave List editor parameters (pages 106..108)

106	00	--	---	Offset Int	STEP	0,15	1,16
106	01	--	---	Offset Int	WAVE (name)	0,?	Size: 9 [Wave Name Tables - #18]
106	02	--	---	Offset Int	(wave class)	0,10	Size: 12 [Wave Class Table - #17]
106	03	--	---	Pos Frac	START	0,127	00 to 99
107	00	--	---	Offset Int	STEP	0,15	1,16
107	01	--	---	Word	DUR	0,5000	0000 to 5000 msec
107	03	--	---	Signed Int	VOL	-50,14	-50 to +14 dB
107	04	--	---	Word	XFADE-TIME	0,5000	0000 to 5000 msec
107	05	--	---	Pos Int	DEPTH	0,6	0,6 dB
108	00	--	---	Offset Int	STEP	0,15	1,16
108	01	--	---	Bit Table (7)	DIR	0,1	Size: 7 [FORWARD, REVERSE]
108	03	--	---	Bit Table (7)	PITCH-KBD-TRK	0,1	Size: 3 [OFF, ON]
108	04	--	---	Signed Int	XPOS	-36,36	-36,36 semitones
108	05	--	---	Signed Int	DETUNE	-99,99	-99,99 cents

Drum-Map editor parameters (page 109)

109	00	--	---	Signed Int	VOL	0,15	0,15
109	01	--	---	Table	PAN	0,7	Size: 7 [Drum Pan Table - #12]
109	02	--	---	Signed Int	PITCH	-16,15	-16,15
109	03	--	---	Key Range	KEY	23,95	B1 to B6
109	04	--	---	Table	WAVE	0,105	Size: 9 [Drum Wave Name Table - #19]
109	05	--	---	Table	VOICE	0,31	Size: 10 [Drum Map Voice Table - #11]

Pitch Tables

The pitch table is a set of 88 concatenated 16 bit records for the keyrange A0 to C8. The upper 8 bits of each record is the semitone value (s) and the lower 8 bits is the cents value (c)

```
|-- one word --||-- one word --||-- one word --|
ssssssssccccccccssssssssccccccccsssssssscccccccc
|-- 1 record --||-- 1 record --||-- 1 record --|
```

Drum Maps

The drum map is a set of 61 concatenated 24 bit records, covering the 61 note keyboard starting at key B1 for compatibility with GM/GS drum mapping.

This is the bit packing scheme starting from the MSBit of each 24 bit record:

Bits	Symbol	Function
7	i	wave index
5	a	voice assign (patch select 0..3, 28 defaults)
4	v	volume (0..15 arbitrary scaling units)
5	t	tuning (-15 to +15 semitones)
3	p	pan (7 pan settings L to R and "voice")

```
|-- one word --||-- one word --||-- one word --|
iiiiiiiiaaaaavvvvttttpppiiiiiiaaaaavvvvttttppp
|----- 1 record -----||----- 1 record -----|
```

Note: The Drum-Map wave class uses a special subset of the total wave set which is only available on the Drum-Map Editor sub-pages (see #19 — Drum Wave Name Table).

Wave Lists

The wavelist is made of 16 steps of 11 bytes each (176 bytes) which leaves 8 bytes unused at the end of "voice 6". The wavelist replaces voice 5 and 6 in the program.

Data structure for each step of the wave list:

Offset	Element	Notes
00	wave index	[Wave Name Tables - #18]
01	wave class	[Wave Class Table - #17]
02	keyboardtracking switch	Bit 7 (MSB) switch
02	start point or transwave index	0..127 (Pos Int - 7 bits)
03	volume	-50,14 in dB
04	semitone	-36..+36 (Signed Int)
05	fine tune	-99..99
06	duration	16 bit duration in msec
08	crossfade time	16 bit crossfade time in msec
10	direction	Bit 7 (MSB) switch
10	xfade depth	0 to 6 dB (Pos Int - 7 bits)

Text tables used by table type parameters

Some of the Table type parameters refer to table definitions by number as listed here:

- 1 Modulation Source Table
- 2 Foot Switch Mode Table
- 3 Program Type Table
- 4 Modulation Shape Table
- 5 Envelope Velocity Curve Table
- 6 Glide Mode Table
- 7 LFO Shape Table
- 8 Velocity Curve Table
- 9 WakeUp Mode Table
- 10 System Pitch Tables
- 11 Drum Voice Table
- 12 Drum Pan Table
- 13 Filter 1 Mode Table
- 14 Filter 2 Mode Table
- 15 WaveList Mode Table
- 16 Program Option Table
- 17 Wave Class Table
- 18 Wave Name Table
- 19 Drum Wave Name Table

#1 — Modulation Source Table

00	' LFO '	
01	'NOISE'	
02	'ENV-1'	
03	'ENV-2'	
04	'MIXER'	Mixer/Shaper
05	'WL+PR'	Mod Wheel & Pressure
06	'PR+VL'	Pressure & Velocity
07	'WHEEL'	Mod Wheel
08	'PITCH'	Pitch wheel
09	'PEDAL'	CV/Pedal input
10	'TIMBR'	Timbre modulator
11	'XCTRL'	Assignable External Controller (XCTRL)
12	'PRESS'	Pressure
13	'KEYBD'	Keyboard
14	'VELOC'	Velocity
15	'*OFF*'	

#2 — Foot Switch Mode Table

00	'*UNUSED*'
01	'SUSTAIN'
02	'SOSTENUTO'
03	'PATCH-R'
04	'PATCH-L'
05	'FX-SW-MOD'
06	'PRESET-UP'
07	'PRESET-DN'
08	'PLAY/STOP'
09	'STOP/CONT'
10	'STEP-REC'
11	'SONG-STEP'

#3 — Program Type Table

00	'ACPIANOS'	acoustic pianos and piano forte
01	'ELPIANOS'	electric & electronic pianos:rhodes,wurlitzer,DX7
02	'ORGANS'	pipe organs and electronic organs
03	'ALTKEYS'	other keyboard sounds: harsichord, accordion
04	'SYNLEAD'	lead synth sounds
05	'SYNPAD'	synth pads
06	'SYNOTHER'	other synth snds:hybrids,power-synths,synth bells
07	'GUITARS'	acoustic guitars,clean/distorted electric guitars
08	'ALTPLUCK'	other plucked strings:harps,banjo,dulcimer,sitar
09	'SOLOSTRG'	plucked/bowed solo strings(violin,viola,cello,bass)
10	'STRGSECT'	plucked/bowed string sections and small ensembles
11	'SOLOBRAS'	solo brass: trumpet,trombone,tuba,french horns
12	'BRASSECT'	brass sections: trumpet,trombone,tuba,french horns
13	'SOLOSAX'	solo saxophones
14	'SOLOWIND'	solo woodwinds/reeds including harmonica
15	'WINDSECT'	woodwind/reed/saxophone sections & small ensembles
16	'VOCALS'	vocal sounds: choirs and synthvox
17	'ACOUBASS'	acoustic basses
18	'ELECBASS'	electric basses
19	'SYNBASS'	synth basses
20	'DRUMS-E'	drum kits that use the ENSONIQ Drum Map
21	'DRUMS-GM'	drum kits that use the General MIDI Drum Map
22	'PERCUSSN'	percussion kits and solo untuned percussion (e.g. taiko)
23	'TUNEPERC'	tuned percussion: marimba, xylo, tympani
24	'SOUND-FX'	realistic (e.g. broken glass) & fantasy (e.g. spacecraft) sound FX
25	'SPLITS'	combination keyboard splits of 2 or more DIFFERENT instruments
26	'TRANS-WV'	distinctly TransWave-type sounds, a la VFX (use this selectively)
27	'HYPER-WV'	distinctly HyperWave texture sounds
28	'GROOVES'	rhythm loop grooves and pulsed performance sounds
29	'UTILITY'	utility resources: default template sounds, pitch tables, etc.
30	'OTHER'	use if no other category applies (e.g. digereedoo)
31	'CUSTOM'	reserved for end-user's special purpose sounds; not for ROM sounds

#4 — Modulation Shape Table

#5 — Envelope Velocity Curve Table (entries 00..09 only)

00	'QUIKRISE'
01	'CONVEX-1'
02	'CONVEX-2'
03	'CONVEX-3'
04	'LINEAR'
05	'CONCAVE1'
06	'CONCAVE2'
07	'CONCAVE3'
08	'CONCAVE4'
09	'LATERISE'
10	'QUANT-32'
11	'QUANT-16'
12	'QUANT-08'
13	'QUANT-04'
14	'QUANT-02'
15	'SMOOTHER'

#6 Glide Mode Table

00 'NONE '
 01 'PEDAL '
 02 'MONO '
 03 'LEGATO '
 04 'TRIGGER '
 05 'MINIMODE'

#7 LFO Waveshape Table

00 'TRIANGLE '
 01 'SINE '
 02 'SINE/TRI '
 03 'POS/SINE '
 04 'POS/TRI '
 05 'SAWTOOTH '
 06 'SQUARE '

#8 Velocity Curve Table

For TS-12:

00 'PNO-VEL1 '
 01 'PNO-VEL2 '
 02 'PNO-VEL3 '
 03 'PNO-VEL4 '
 04 'PNO-VEL5 '
 05 'PNO-VEL6 '
 06 'SYN-VEL1 '
 07 'SYN-VEL2 '
 08 'SYN-VEL3 '
 09 'SYN-VEL4 '
 10 'SYN-VEL5 '
 11 'SYN-VEL6 '
 12 'FIXED-64 '
 13 'FIXED127 '

For TS-10:

00 'VELTBL-1 '
 01 'VELTBL-2 '
 02 'VELTBL-3 '
 03 'VELTBL-4 '
 04 'VELTBL-5 '
 05 'VELTBL-6 '
 06 'VELTBL-7 '
 07 'FIXED-64 '
 08 'FIXED127 '

#9 WakeUp Mode Table

00 'SOUNDS '
 01 'PRESETS '
 02 'SEQ/SONG '
 03 'DEFAULT '
 04 'PREVIOUS '
 05 'LASTPAGE'

#10 System Pitch Tables

Note: The entry at offset 11 TURKISH-A was inserted in version 2.0.

00 'NORMAL '
 01 'CUSTOM '
 02 'U1-PROGRAMS '
 03 'PYTHAGRAN-C '
 04 'JUST INT-C '
 05 'MEANTONE-C '
 06 'WRKMEISTR-C '
 07 'VALLOTTI-C '
 08 'GRK-DIATONC '
 09 'GRK-CHROMAT '
 10 'GRK-ENHARM '
 11 'TURKISH-A '
 12 'ARABIC-1 '
 13 'ARABIC-2 '
 14 'ARABIC-3 '
 15 'ARABIC-4 '
 16 'JAVA-PELOG1 '
 17 'JAVA-PELOG2 '
 18 'JAVA-PELOG3 '
 19 'JAVA-SLNDRO '
 20 'JAVA-COMBI '
 21 'INDIAN-RAGA '
 22 'TIBETAN '
 23 'CHINESE-1 '
 24 'CHINESE-2 '
 25 'THAILAND '
 26 '24-TONE-EQU '
 27 '19-TONE-EQU '
 28 '31-TONE-EQU '
 29 '53-TONE-EQU '
 30 'HARMONIC '
 31 'CARLOSALPHA '
 32 'CARLOS-BETA '
 33 'CARLOSGAMMA '
 34 'PARTCH-43 '
 35 'REVERSE '

#11 Drum Voice Table

00 'OO PATCH '
 01 'O* PATCH '
 02 '*O PATCH '
 03 '** PATCH '
 04 'DRUM-FX1 '
 05 'DRUM-FX2 '
 06 'DRUM-DRY '
 07 'TIGHT-FX1 '
 08 'TIGHT-FX2 '
 09 'TIGHT-DRY '
 10 'NORMAL-FX1 '
 11 'NORMAL-FX2 '
 12 'NORMAL-DRY '
 13 'TOMTOM-FX1 '
 14 'TOMTOM-FX2 '
 15 'TOMTOM-DRY '

16 'KEYGRP-FX1 '
 17 'KEYGRP-FX2 '
 18 'KEYGRP-DRY '
 19 'LDECAY-FX1 '
 20 'LDECAY-FX2 '
 21 'LDECAY-DRY '
 22 'MDECAY-FX1 '
 23 'MDECAY-FX2 '
 24 'MDECAY-DRY '
 25 'SDECAY-FX1 '
 26 'SDECAY-FX2 '
 27 'SDECAY-DRY '
 28 'SYNDRM-FX1 '
 29 'SYNDRM-FX2 '
 30 'SYNDRM-DRY '
 31 'DRUM-AUX '

#12 Drum Pan Table

00 '*VOICE* '
 01 'L----- '
 02 '-L----- '
 03 '---L----- '
 04 '----C---- '
 05 '-----R-- '
 06 '-----R- '
 07 '-----R'

#13 Filter 1 Mode Table

00 'LO-PASS/2 '
 01 'LO-PASS/3 '
 02 'LO-PASS/2 '
 03 'LO-PASS/3 '

#14 Filter 2 Mode Table

00 'HI-PASS/2 '
 01 'HI-PASS/1 '
 02 'LO-PASS/2 '
 03 'LO-PASS/1 '

#15 WaveList Mode Table

00 '*--NONE--* '
 01 'START-STEP '
 02 'LOOP-START '
 03 'END-STEP '
 04 'TRAVELER '
 05 'START+LOOP '

#16 Program Option Table

00 '*-NONE-* '
 01 'PITCHTBL '
 02 'WAVELIST '
 03 'DRUM-MAP '

#17 Wave Class Table

Class Name	# waves
00 'KEYBOARD'	20
01 'STRING-SOUND'	25
02 'BRASS+HORNS'	09
03 'WIND+REEDS'	14
04 'VOCAL-SOUND'	04
05 'BASS-SOUND'	19
06 'DRUM-SOUND'	40
07 'CYMBALS'	11
08 'PERCUSSION'	32
09 'TUNED-PERCUS'	14
10 'SOUND-EFFECT'	08
11 'WAVEFORM'	38
12 'INHARMONIC'	11
13 'TRANSWAVE'	08
14 'WAVE-LIST'	01
15 'DRUM-MAP'	01
Total waves	267

#18 Wave Name Table

Class 00 KEYBOARD

00 'GND-PIANO'
01 'PNO-THUD'
02 'EL-PIANO1'
03 'EL-PIANO2'
04 'EL-PIANO3'
05 'EL-PIANO4'
06 'EL-PIANO5'
07 'WURLIE-LO'
08 'WURLIE-HI'
09 'ROCK-ORGN'
10 'JAZZ-ORGN'
11 'ROTARYORG'
12 'ORGAN-1'
13 'PIPE-ORGN'
14 'REED-ORGN'
15 'CELESTE'
16 'HARPSICRD'
17 'SYNTH-PAD'
18 'SYNTH-ANA'
19 'SYNTH-VOX'

Class 01 STRING-SOUND

00 'NYLON-GTR'
01 'STEEL-GTR'
02 'GTR-VAR'
03 'FRETNOISE'
04 'NYLON-HRM'
05 'ELEC-GTR1'
06 'ELEC-GTR2'
07 'ELEC-GTR3'
08 'DIST-GTR'
09 'MUTE-GTR'
10 'GTR-HARM'
11 'HARP'
12 'OCT-HARP'
13 'STRINGS'
14 'PIZZ-SECT'
15 'SOLOVIOLN'
16 'SOLOCELLO'
17 'SOLO-PIZZ'

18 'TECHSTRNG'
19 'GOTO'
20 'BIWA'
21 'SHAMISEN'
22 'SITAR'
23 'BANJO'
24 'DULCIMER'

Class 02 BRASS+HORNS

00 'TRUMPET'
01 'FLUGELHRN'
02 'MUTE-TRMP'
03 'PICO-TRMP'
04 'TROMBONE'
05 'TUBA'
06 'TRUMP-SEC'
07 'FRHRN-SEC'
08 'TBONE-SEC'

Class 03

WIND+REEDS

00 'SOPRN-SAX'
01 'SOPR-SAX2'
02 'ALTO-SAX'
03 'TENOR-SAX'
04 'CLARINET'
05 'OBOE'
06 'OBOE-VAR'
07 'FLUTE'
08 'FOLKFLUTE'
09 'PANFLUTE'
10 'CHIFFLUTE'
11 'SHAKU'
12 'HARMONICA'
13 'ACCORDION'

Class 04 VOCAL-SOUND

00 'CHOIR'
01 'VOCAL-OOH'
02 'VOCAL-AAH'
03 'VOCAL-SYN'

Class 05 BASS-SOUND

00 'EL-BASS-1'
01 'EL-BASS-2'
02 'EL-BASS-3'
03 'SLAP-BASS'
04 'PICK-BASS'
05 'MUTE-BASS'
06 'BASS-TAP'
07 'FRETLESS'
08 'BS-HARMS'
09 'AC-BASS'
10 'BASS-THUD'
11 'FM-BASS'
12 'SYNBASS-1'
13 'SYNBASS-2'
14 'SYNBASS-3'
15 'ANABASS-1'
16 'ANABASS-2'
17 'ANABASS-3'
18 'ANABASS-4'

Class 06 DRUM-SOUND

00 'ROOM-KICK'
01 'REAL-KICK'
02 'ROCK-KICK'
03 'JAZZ-KICK'
04 'FAT-KICK'
05 'R+B-KICK'
06 'KICK-1'
07 'SYNKICK-1'
08 'SYNKICK-2'
09 'SYNKICK-3'
10 'DANCE-KIK'
11 'LOOP-KICK'
12 'REALSNARE'
13 'ROCKSNARE'
14 'DEEPSNARE'
15 'GATESNARE'
16 'FUNKSNARE'
17 'JAZZSNARE'
18 'SNARE-ROL'
19 'RIMSHOT-1'
20 'RIMSHOT-2'
21 'SIDEKICK-1'
22 'SIDEKICK-2'
23 'BRUSH-SCR'
24 'BRUSH-TAP'
25 'BRUSH-OPN'
26 'BRUSH-HIT'
27 'DANCE-SNR'
28 'HIPHOP-SN'
29 'SYNSNAR-1'
30 'SYNSNAR-2'
31 'SYNSNAR-3'
32 'SYN-STICK'
33 'DRY-TOM'
34 'ROOM-TOM1'
35 'ROOM-TOM2'
36 'BRUSH-TOM'
37 'SYN-DRUM1'
38 'SYN-DRUM2'
39 'SYN-DRUM3'

Class 07 CYMBALS

00 'CLO-HAT-1'
01 'CLO-HAT-2'
02 'OPN-HAT-1'
03 'OPN-HAT-2'
04 'PEDAL-HAT'
05 'CRASH-CYM'
06 'CHINA-CYM'
07 'RIDE-CYM'
08 'RIDE-BELL'
09 'SYNHAT-CL'
10 'SYNHAT-OP'

Class 08 PERCUSSION

00 'CONGA-MT'
01 'CONGA-SLP'
02 'CONGA-HI'
03 'CONGA-LO'
04 'TIMBALI'
05 'BONGO'
06 'TABLA-SLP'
07 'TABLA-HI'

08 'TABLA-LO'
09 'TAIKO'
10 'SHAKER'
11 'CABASA'
12 'MARACAS'
13 'HI-BLOCK'
14 'LO-BLOCK'
15 'CLAVE'
16 'CASTANETS'
17 'GUIRO'
18 'CUICA'
19 'VIBRASLAP'
20 'COWBELL'
21 'AGOGO-BEL'
22 'TAMBORINE'
23 'TAMB-LOOP'
24 'TRIANGLE'
25 'METALPIPE'
26 'WINDCHIME'
27 'WINDCHIME2'
28 'FNGR-SNAP'
29 'SYN-CLAPS'
30 'SYN-KISS'
31 'RATTLE'

Class 09 TUNED-PERCUS

00 'VIBRAPHON'
01 'MARIMBA'
02 'XYLOPHONE'
03 'GLOCKEN'
04 'TYMPANI'
05 'TUNED-TOM'
06 'TUNED-LOG'
07 'STEEL-DRM'
08 'KALIMBA'
09 'GAM-BELL'
10 'DOORBELL'
11 'WHISTLE'
12 'DANCE-HIT'
13 'ORCH-HIT'

Class 10 SOUND-EFFECT

00 'BIRD-SONG'
01 'APPLAUSE'
02 'TELEPHONE'
03 'AN-OLD-45'
04 'MACHINE'
05 'CLICKER-1'
06 'CLICKER-2'
07 'BELL-LOOP'

Class 11 WAVEFORM

00 'SINE-WAVE'
01 'SQUARE-WV'
02 'SAW-WAVE1'
03 'SAW-WAVE2'
04 'TRI-WAVE'
05 'ORG-WAVE1'
06 'ORG-WAVE2'
07 'ORG-WAVE3'
08 'ORG-WAVE4'
09 'ORG-WAVE5'
10 'ORG-WAVE6'
11 'CH-ORG-WV'

12	'BEL-WAVE1'			58	'TABLA-SLP'
13	'BEL-WAVE2'			59	'TABLA-HI'
14	'BEL-WAVE3'			60	'TABLA-LO'
15	'BEL-WAVE4'	00	'*-MUTED-*'	61	'TAIKO'
16	'BEL-WAVE5'		Drums	62	'SHAKER'
17	'BEL-WAVE6'	01	'ROOM-KICK'	63	'CABASA'
18	'BEL-WAVE7'	02	'REAL-KICK'	64	'MARACAS'
19	'DBL-REED'	03	'ROCK-KICK'	65	'HI-BLOCK'
20	'SNGL-REED'	04	'JAZZ-KICK'	66	'LO-BLOCK'
21	'CLAV-WAVE'	05	'FAT-KICK'	67	'CLAVE'
22	'PAD-WAVE1'	06	'R+B-KICK'	68	'CASTANETS'
23	'PAD-WAVE2'	07	'KICK-1'	69	'GUIRO'
24	'PAD-WAVE3'	08	'SYNKICK-1'	70	'CUICA'
25	'PAD-WAVE4'	09	'SYNKICK-2'	71	'VIBRASLAP'
26	'PAD-WAVE5'	10	'SYNKICK-3'	72	'COWBELL'
27	'PAD-WAVE6'	11	'DANCE-KIK'	73	'AGOGO-BEL'
28	'5THS-WAVE'	12	'LOOP-KICK'	74	'TAMBORINE'
29	'VOCAL-WV'	13	'REALSNARE'	75	'TAMB-LOOP'
30	'DIGI-WAVE'	14	'ROCKSNARE'	76	'TRIANGLE'
31	'ANDROMEDA'	15	'DEEPSNARE'	77	'METALPIPE'
32	'SYNKEY-WV'	16	'GATESNARE'	78	'WINDCHIME'
33	'ANA-WAVE1'	17	'FUNKSNARE'	79	'WINDCHIME2'
34	'ANA-WAVE2'	18	'JAZZSNARE'	80	'FNGR-SNAP'
35	'ANA-WAVE3'	19	'SNARE-ROL'	81	'SYN-CLAPS'
36	'ANA-WAVE4'	20	'RIMSHOT-1'	82	'SYN-KISS'
37	'METL-WAVE'	21	'RIMSHOT-2'	83	'RATTLE'
		22	'SIDEKICK-1'	84	'VIBRAPHON'
		23	'SIDEKICK-2'		Tuned Percussion
Class 12	INHARMONIC	24	'BRUSH-SCR'	85	'MARIMBA'
00	'TUBULAR'	25	'BRUSH-TAP'	86	'XYLOPHONE'
01	'BIG-BELL'	26	'BRUSH-OPN'	87	'GLOCKEN'
02	'CRYSTAL'	27	'BRUSH-HIT'	88	'TYMPANI'
03	'SYNTHBELL'	28	'DANCE-SNR'	89	'TUNED-TOM'
04	'NOISE'	29	'HIPHOP-SN'	90	'TUNED-LOG'
05	'AIR-LOOP'	30	'SYNSNAR-1'	91	'STEEL-DRM'
06	'SPINNER-1'	31	'SYNSNAR-2'	92	'KALIMBA'
07	'SPINNER-2'	32	'SYNSNAR-3'	93	'GAM-BELL'
08	'TEXTURE-1'	33	'SYN-STICK'	94	'DOORBELL'
09	'TEXTURE-2'	34	'DRY-TOM'	95	'WHISTLE'
10	'METL-LOOP'	35	'ROOM-TOM1'	96	'DANCE-HIT'
		36	'ROOM-TOM2'	97	'ORCH-HIT'
Class 13	TRANSWAVE	37	'BRUSH-TOM'	98	'BIRD-SONG'
00	'BELL-XWV1'	38	'SYN-DRUM1'		Sound Effects
01	'BELL-XWV2'	39	'SYN-DRUM2'	99	'APPLAUSE'
02	'RESONANCE'	40	'SYN-DRUM3'	100	'TELEPHONE'
03	'XWAVE-EE'	41	'CLO-HAT-1'	101	'AN-OLD-45'
04	'XWAVE-AY'		Cymbals	102	'MACHINE'
05	'XWAVE-AA'	42	'CLO-HAT-2'	103	'CLICKER-1'
06	'XWAVE-OH'	43	'OPN-HAT-1'	104	'CLICKER-2'
07	'XWAVE-Z'	44	'OPN-HAT-2'	105	'BELL-LOOP'
Class 14	WAVE-LIST	45	'PEDAL-HAT'		
00	'WAVE-LIST'	46	'CRASH-CYM'		
Class 15	DRUM-MAP	47	'CHINA-CYM'		
00	'DRUM-MAP'	48	'RIDE-CYM'		
		49	'RIDE-BELL'		
		50	'SYNHAT-CL'		
		51	'SYNHAT-OP'		
		52	'CONGA-MT'		
			Percussion		
		53	'CONGA-SLP'		
		54	'CONGA-HI'		
		55	'CONGA-LO'		
		56	'TIMBALI'		
		57	'BONGO'		

5.4 Effect Parameter Definitions

The appearance and content of the effect parameter pages is dependent on the currently selected effect algorithm. When changing effect page parameters, be sure the algorithm is selected first; otherwise parameter values may be incompatible or invalid. When the algorithm is changed, the rest of the effect parameters assume the preset values contained in variation 01. The Variation Select is a global system parameter and is not saved as part of the effect data structure. It simply installs a predefined set of parameter values for the selected algorithm into the effect edit buffer.

The following list of effect parameters the values is ordered by the displayed value of the Algorithm Select parameter (page 36, slot 0), which reflects the order of the list shown by the system. The actual algorithm index value is also listed for each algorithm. This index is the actual value saved in the Algo Index (offset 0) in the 40 byte effect data structure, and does not correspond to the Algorithm Number used to logically group the algorithms for display. Algorithms should be referenced by this index value when imbedded in program, preset or sequence data structures.

At the top of every parameter listing page there are some column labels which describe the meaning of the parameter description fields. These are defined as follows:

Pg	Page number (36..45)
SI	Slot number (0..5)
Mi	Multi-param index (00..n or -- if not a multi-param slot)
Off	parameter Offset in 40 byte effect data structure
Name	parameter Name as displayed on TS screen
Internal	parameter range as used by the TS Internally (decimal)
Displayed	parameter range as Displayed on TS screen (see Table type notes)

Refer to the General Notes at the start of Section 5 for more details on parameter types.

A set of text tables used by the effect table type parameters follows the last algorithm parameter list.

For effect modulation parameters

Type: ? indicates that the parameter type is variable and dependent on the destination parameter selected.
 [Param Names] indicates that the displayed text is a variable length parameter name description which may differ from the parameter name which appears on the page where it is located.

Size: ? indicates variable size table text fields used for Effect Modulation Destination parameters which display a variable length text string to describe the parameter selected for modulation. These text strings are not included in this document.

Common parameters

EFFECT	Algorithm Select uses the list of algorithms based on the displayed order using the Algorithm Number. The algorithms are listed in this document in this display order.
VAR	The Variation Select is a global parameter and is not saved in the effect data structure. The variation tables are different for each effect and are not included in this document.

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
Algorithm 00 (index 53) :					DRY/BYPASSED		
4 pages with 12 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,1	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 LEVEL	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 LEVEL	0,127	00 to 99
38	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
38	02	--	035	Table Ptr	DEST	0,1	Size: ? [Param Names]
38	03	--	036	Type: ?	MIN	(depends on Destination param)	
38	05	--	038	Type: ?	MAX	(depends on Destination param)	
39	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
39	02	--	029	Table Ptr	DEST	0,1	Size: ? [Param Names]
39	03	--	030	Type: ?	MIN	(depends on Destination param)	
39	05	--	032	Type: ?	MAX	(depends on Destination param)	
Algorithm 01 (index 44) :					DDL+CHORUS+REV		
10 pages with 34 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	--	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	--	005	Pos Frac	DRY	0,127	00 to 99
39	00	--	010	Pos Frac	DDL MIX	0,127	00 to 99
39	01	--	013	Pos Frac	LEVEL	0,127	00 to 99
39	02	--	014	Signed Frac	PAN	-127,127	-99 to +99
40	01	--	011	Signed Frac	DDL REGEN L	-127,127	-99 to +99
40	02	--	012	Pos Frac	DAMPING	0,127	00 to 99
40	04	--	006	Word	DELAY TIME L	0,1000	0000 to 1000 msec
40	05	--	008	Word	DELAY TIME R	0,1000	0000 to 1000 msec
41	00	--	016	Pos Frac	CHORUS MIX	0,127	00 to 99
41	01	--	015	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	WET PAN	-128,127	-99 to +99
41	05	--	018	Signed Frac	DRY PAN	-128,127	-99 to +99
42	00	--	023	Pos Int	CHORUS CENTER	0,127	000 to 127
42	01	--	020	Pos Int	RATE	0,127	000 to 127
42	02	--	022	Pos Int	WIDTH	0,127	000 to 127
42	04	--	021	Unsigned Int	LFO SPREAD	0,128	000 to 128
42	05	--	019	Signed Frac	REGEN	-127,127	-99 to +99
43	01	--	024	Table	REVERB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	--	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	--	034	Table	MOD SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,27	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	
Algorithm 02 (index 57) :					EQ--DDL+CHORUS+REV		
10 pages with 36 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	--	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	--	005	Pos Frac	DRY	0,127	00 to 99
39	00	--	009	Pos Frac	EQDDL MIX	0,127	00 to 99
39	01	--	013	Pos Frac	LEVEL	0,127	00 to 99
39	02	--	014	Signed Frac	PAN	-127,127	-99 to +99
39	03	--	006	Table	EQ FC	0,33	Size: 3 [Log Freq Table - #25]
39	04	--	007	Table	BW	0,42	Size: 3 [Log BW Table - #26]
39	05	--	008	Signed Int	LEVEL	-99,48	-99 to +48
40	01	--	011	Signed Frac	EQDDL REGEN	-127,127	-99 to +99

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
40	02	--	012	Pos Frac	DAMPING	0,127	00 to 99
40	05	--	010	Table	TIME	0,71	Size: 3 [DDL Time Table - #27]
41	00	--	016	Pos Frac	CHORUS MIX	0,127	00 to 99
41	01	--	015	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	WET PAN	-128,127	-99 to +99
41	05	--	018	Signed Frac	DRY PAN	-128,127	-99 to +99
42	00	--	023	Pos Int	CHORUS CENTER	0,127	000 to 127
42	01	--	020	Pos Int	RATE	0,127	000 to 127
42	02	--	022	Pos Int	WIDTH	0,127	000 to 127
42	04	--	021	Unsigned Int	LFO SPREAD	0,128	000 to 128
42	05	--	019	Signed Frac	REGEN	-127,127	-99 to +99
43	01	--	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	--	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	--	034	Table	MOD SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,29	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 03 (index 63) : DELAYLFO+CHORUS+REV
 10 pages with 36 parameters

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	--	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	--	005	Pos Frac	DRY	0,127	00 to 99
39	01	--	013	Pos Frac	DELAYLFO LEVEL	0,127	00 to 99
39	02	--	014	Signed Frac	PAN	-127,127	-99 to +99
39	04	--	006	Pos Frac	WET	0,127	00 to 99
39	05	--	007	Pos Frac	DRY	0,127	00 to 99
40	00	--	010	Pos Int	DELAYLFO CENTER	0,127	000 to 127
40	01	--	008	Pos Int	RATE	0,127	000 to 127
40	02	--	009	Pos Int	WIDTH	0,127	000 to 127
40	04	--	012	Pos Frac	R LFO PHASE	0,127	00 to 99
40	05	--	011	Signed Frac	REGEN	-127,127	-99 to +99
41	00	--	016	Pos Frac	CHORUS MIX	0,127	00 to 99
41	01	--	015	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	WET PAN	-128,127	-99 to +99
41	05	--	018	Signed Frac	DRY PAN	-128,127	-99 to +99
42	00	--	023	Pos Int	CHORUS CENTER	0,127	000 to 127
42	01	--	020	Pos Int	RATE	0,127	000 to 127
42	02	--	022	Pos Int	WIDTH	0,127	000 to 127
42	04	--	021	Unsigned Int	LFO SPREAD	0,128	000 to 128
42	05	--	019	Signed Frac	REGEN	-127,127	-99 to +99
43	01	--	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	--	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	--	034	Table	MOD SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,29	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 04 (index 60) : ROTOSPKR+CHORUS+REV
 10 pages with 36 parameters

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
38	04	—	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	—	005	Pos Frac	DRY	0,127	00 to 99
39	00	—	006	Table	STEREO	0,1	Size: 4 [Off On Table - #38]
39	01	—	007	Pos Frac	LEVEL	0,127	00 to 99
39	02	—	008	Signed Frac	PAN	-127,127	-99 to +99
39	04	—	009	Pos Frac	AM DEPTH	0,127	00 to 99
39	05	—	010	Pos Frac	FM DEPTH	0,127	00 to 99
40	00	—	011	Pos Frac	ROTO SLOW	0,127	00 to 99
40	01	—	012	Pos Frac	FAST	0,127	00 to 99
40	02	—	013	Pos Frac	INERTIA	0,127	00 to 99
40	05	—	014	Table	SPEED	0,1	Size: 4 [Speed Table - #37]
41	00	—	016	Pos Frac	CHORUS MIX	0,127	00 to 99
41	01	—	015	Pos Frac	LEVEL	0,127	00 to 99
41	02	—	017	Signed Frac	WET PAN	-128,127	-99 to +99
41	05	—	018	Signed Frac	DRY PAN	-128,127	-99 to +99
42	00	—	023	Pos Int	CHORUS CENTER	0,127	000 to 127
42	01	—	020	Pos Int	RATE	0,127	000 to 127
42	02	—	022	Pos Int	WIDTH	0,127	000 to 127
42	04	—	021	Unsigned Int	LFO SPREAD	0,128	000 to 128
42	05	—	019	Signed Frac	REGEN	-127,127	-99 to +99
43	01	—	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	—	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	—	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	—	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	—	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	—	034	Table	MOD SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	—	035	Table Ptr	DEST	0,29	Size: ? [Param Names]
45	03	—	036	Type: ?	MIN	(depends on Destination param)	
45	05	—	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 05 (index 47) :
10 pages with 35 parameters

DISTORT+CHORUS+REV

36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	—	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	—	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	—	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	—	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	—	005	Pos Frac	DRY	0,127	00 to 99
39	00	—	006	Pos Frac	DIST MIX	0,127	00 to 99
39	01	—	007	Pos Frac	LEVEL	0,127	00 to 99
39	02	—	008	Signed Frac	PAN	-128,127	-99 to +99
39	03	—	009	Pos Frac	PREAMP	0,127	00 to 99
39	04	—	014	Pos Frac	MAIN	0,127	00 to 99
39	05	—	013	Signed Frac	BIAS	-127,127	-99 to +99
40	01	—	010	Word	ZONE	0,8000	0000 to 8000
40	02	—	012	Pos Frac	RESONANCE	0,127	00 to 99
41	00	—	016	Pos Frac	CHORUS MIX	0,127	00 to 99
41	01	—	015	Pos Frac	LEVEL	0,127	00 to 99
41	02	—	017	Signed Frac	WET PAN	-128,127	-99 to +99
41	05	—	018	Signed Frac	DRY PAN	-128,127	-99 to +99
42	00	—	023	Pos Int	CHORUS CENTER	0,127	000 to 127
42	01	—	020	Pos Int	RATE	0,127	000 to 127
42	02	—	022	Pos Int	WIDTH	0,127	000 to 127
42	04	—	021	Unsigned Int	LFO SPREAD	0,128	000 to 128
42	05	—	019	Signed Frac	REGEN	-127,127	-99 to +99
43	01	—	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	—	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	—	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	—	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	—	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	—	034	Table	MOD SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	—	035	Table Ptr	DEST	0,28	Size: ? [Param Names]
45	03	—	036	Type: ?	MIN	(depends on Destination param)	
45	05	—	038	Type: ?	MAX	(depends on Destination param)	

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
Algorithm 06 (index 54) :					PARAM EQ+CHORUS+REV		
10 pages with 35 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	--	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	--	005	Pos Frac	DRY	0,127	00 to 99
39	00	--	006	Pos Frac	EQ INPUT	0,127	00 to 99
39	01	--	007	Pos Frac	OUTPUT	0,127	00 to 99
39	02	--	008	Signed Frac	PAN	-128,127	-99 to +99
39	03	--	012	Word	MID FC	0,15000	00000 to 15000
39	04	--	014	Table	BW	0,42	Size: 3 [Log BW Table - #27]
39	05	--	011	Signed Int	LEVEL	-99,48	-99 to +48 dB
40	02	--	009	Signed Int	BASS LEVEL	-99,48	-99 to +48 dB
40	05	--	010	Signed Int	TREBLE LEVEL	-99,48	-99 to +48 dB
41	00	--	016	Pos Frac	CHORUS MIX	0,127	00 to 99
41	01	--	015	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	WET PAN	-128,127	-99 to +99
41	05	--	018	Signed Frac	DRY PAN	-128,127	-99 to +99
42	00	--	023	Pos Int	CHORUS CENTER	0,127	000 to 127
42	01	--	020	Pos Int	RATE	0,127	000 to 127
42	02	--	022	Pos Int	WIDTH	0,127	000 to 127
42	04	--	021	Unsigned Int	LFO SPREAD	0,128	000 to 128
42	05	--	019	Signed Frac	REGEN	-127,127	-99 to +99
43	01	--	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	--	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	--	034	Table	MOD SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,28	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	
Algorithm 07 (index 66) :					ENV VCF+CHORUS+REV		
10 pages with 38 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	--	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	--	005	Pos Frac	DRY	0,127	00 to 99
39	00	--	006	Pos Int	VCF FC	0,127	000 to 127
39	01	--	013	Pos Frac	LEVEL	0,127	00 to 99
39	02	--	014	Signed Frac	PAN	-127,127	-99 to +99
39	03	--	007	Pos Frac	BW	0,127	00 to 99
39	04	--	012	Table Lo	ENV AMT	0,15	Size: 2 [00 to 15]
39	05	--	012	Table Hi	KBD AMT	0,15	Size: 2 [00 to 15]
40	00	--	008	Table	ATTACK	0,58	Size: 8 [Env Time Table 1 - #28]
40	02	--	009	Table	DECAY	0,58	Size: 8 [Env Time Table 1 - #28]
40	03	--	010	Pos Int	SUSTIN	0,63	00 to 63
40	04	--	011	Table	RELEASE	0,58	Size: 8 [Env Time Table 1 - #28]
40	05	--	007	Bit Table (7)	TRIG	0,1	Size: 6 [SINGLE or MULTI]
41	00	--	016	Pos Frac	CHORUS MIX	0,127	00 to 99
41	01	--	015	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	WET PAN	-128,127	-99 to +99
41	05	--	018	Signed Frac	DRY PAN	-128,127	-99 to +99
42	00	--	023	Pos Int	CHORUS CENTER	0,127	000 to 127
42	01	--	020	Pos Int	RATE	0,127	000 to 127
42	02	--	022	Pos Int	WIDTH	0,127	000 to 127
42	04	--	021	Unsigned Int	LFO SPREAD	0,128	000 to 128
42	05	--	019	Signed Frac	REGEN	-127,127	-99 to +99
43	01	--	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	--	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	--	034	Table	MOD SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,31	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 08 (index 45) : DDL+PHLANGR+REV
10 pages with 34 parameters

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	--	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	--	005	Pos Frac	DRY	0,127	00 to 99
39	00	--	010	Pos Frac	DDL MIX	0,127	00 to 99
39	01	--	013	Pos Frac	LEVEL	0,127	00 to 99
39	02	--	014	Signed Frac	PAN	-127,127	-99 to +99
40	01	--	011	Signed Frac	REGEN	-127,127	-99 to +99
40	02	--	012	Pos Frac	DAMPING	0,127	00 to 99
40	04	--	006	Word	DELAY TIME L	0,1000	0000 to 1000
40	05	--	008	Word	TIME R	0,1000	0000 to 1000
41	00	--	015	Signed Frac	PHLANGR MIX	-127,127	-99 to +99
41	01	--	016	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	PAN	-127,127	-99 to +99
41	04	--	018	Pos Int	RATE	0,127	000 to 127
41	05	--	019	Signed Frac	REGEN	-127,127	-99 to +99
42	01	--	021	Signed Int	PHASE CENTER	-127,127	-127 to +127
42	02	--	020	Pos Int	WIDTH	0,127	000 to 127
42	04	--	023	Pos Int	FLANGE CENTER	0,127	000 to 127
42	05	--	022	Pos Int	WIDTH	0,127	000 to 127
43	01	--	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	--	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	--	034	Table	MOD SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,27	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 09 (index 58) : EQ--DDL+PHLANGR+REV
10 pages with 36 parameters

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	--	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	--	005	Pos Frac	DRY	0,127	00 to 99
39	00	--	009	Pos Frac	EQDDL MIX	0,127	00 to 99
39	01	--	013	Pos Frac	LEVEL	0,127	00 to 99
39	02	--	014	Signed Frac	PAN	-127,127	-99 to +99
39	03	--	006	Table	EQ FC	0,33	Size: 3 [Log Freq Table - #25]
39	04	--	007	Table	BW	0,42	Size: 3 [Log BW Table - #26]
39	05	--	008	Signed Int	LEVEL	-99,48	-99 to +48
40	01	--	011	Signed Frac	EQDDL REGEN	-127,127	-99 to +99
40	02	--	012	Pos Frac	DAMPING	0,127	00 to 99
40	05	--	010	Table	TIME	0,71	Size: 3 [DDL Time Table - #27]
41	00	--	015	Signed Frac	PHLANGR MIX	-127,127	-99 to +99
41	01	--	016	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	PAN	-127,127	-99 to +99
41	04	--	018	Pos Int	RATE	0,127	000 to 127

pg	Sl	Mi	Off	Type	Label	Internal	Displayed
11	05	—	019	Signed Frac	REGEN	-127,127	-99 to +99
12	01	—	021	Signed Int	PHASE CENTER	-127,127	-127 to +127
12	02	—	020	Pos Int	WIDTH	0,127	000 to 127
12	04	—	023	Pos Int	FLANGE CENTER	0,127	000 to 127
12	05	—	022	Pos Int	WIDTH	0,127	000 to 127
13	01	—	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
13	02	—	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
13	04	—	025	Pos Frac	HF - DAMPING	0,127	00 to 99
13	05	—	028	Pos Frac	BANDWIDTH	0,127	00 to 99
14	04	—	031	Pos Int	DEFINITION	0,99	00 to 99
14	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
14	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
15	00	—	034	Table	MOD SRC	0,13	Size: 5 [FX Mod Src Table - #20]
15	02	—	035	Table Ptr	DEST	0,29	Size: ? [Param Names]
15	03	—	036	Type: ?	MIN	(depends on Destination param)	
15	05	—	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 10 (index 64) : DELAYLFO+PHLANGR+REV
 10 pages with 36 parameters

36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	—	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	—	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	—	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	—	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	—	005	Pos Frac	DRY	0,127	00 to 99
39	01	—	013	Pos Frac	DELAYLFO LEVEL	0,127	00 to 99
39	02	—	014	Signed Frac	PAN	-127,127	-99 to +99
39	04	—	006	Pos Frac	WET	0,127	00 to 99
39	05	—	007	Pos Frac	DRY	0,127	00 to 99
40	00	—	010	Pos Int	DELAYLFO CENTER	0,127	000 to 127
40	01	—	008	Pos Int	RATE	0,127	000 to 127
40	02	—	009	Pos Int	WIDTH	0,127	000 to 127
40	04	—	012	Pos Frac	R LFO PHASE	0,127	00 to 99
40	05	—	011	Signed Frac	REGEN	-127,127	-99 to +99
41	00	—	015	Signed Frac	PHLANGR MIX	-127,127	-99 to +99
41	01	—	016	Pos Frac	LEVEL	0,127	00 to 99
41	02	—	017	Signed Frac	PAN	-127,127	-99 to +99
41	04	—	018	Pos Int	RATE	0,127	000 to 127
41	05	—	019	Signed Frac	REGEN	-127,127	-99 to +99
42	01	—	021	Signed Int	PHASE CENTER	-127,127	-127 to +127
42	02	—	020	Pos Int	WIDTH	0,127	000 to 127
42	04	—	023	Pos Int	FLANGE CENTER	0,127	000 to 127
42	05	—	022	Pos Int	WIDTH	0,127	000 to 127
43	01	—	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	—	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	—	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	—	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	—	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	—	034	Table	MOD SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	—	035	Table Ptr	DEST	0,29	Size: ? [Param Names]
45	03	—	036	Type: ?	MIN	(depends on Destination param)	
45	05	—	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 11 (index 61) : ROTOSPKR+PHLANGR+REV
 10 pages with 36 parameters

36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	—	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	—	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	—	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	—	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	—	005	Pos Frac	DRY	0,127	00 to 99
39	00	—	006	Table	STEREO	0,1	Size: 4 [Off On Table - #38]
39	01	—	007	Pos Frac	LEVEL	0,127	00 to 99
39	02	—	008	Signed Frac	PAN	-127,127	-99 to +99
39	04	—	009	Pos Frac	AM DEPTH	0,127	00 to 99

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
39	05	--	010	Pos Frac	FM DEPTH	0,127	00 to 99
40	00	--	011	Pos Frac	ROTO SLOW	0,127	00 to 99
40	01	--	012	Pos Frac	FAST	0,127	00 to 99
40	02	--	013	Pos Frac	INERTIA	0,127	00 to 99
40	05	--	014	Table	SPEED	0,1	Size: 4 [Speed Table - #37]
41	00	--	015	Signed Frac	PHLANGR MIX	-127,127	-99 to +99
41	01	--	016	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	PAN	-127,127	-99 to +99
41	04	--	018	Pos Int	RATE	0,127	000 to 127
41	05	--	019	Signed Frac	REGEN	-127,127	-99 to +99
42	01	--	021	Signed Int	PHASE CENTER	-127,127	-127 to +127
42	02	--	020	Pos Int	WIDTH	0,127	000 to 127
42	04	--	023	Pos Int	FLANGE CENTER	0,127	000 to 127
42	05	--	022	Pos Int	WIDTH	0,127	000 to 127
43	01	--	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	--	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	--	034	Table	MOD SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,29	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 12 (index 48) :
10 pages with 35 parameters

DISTORT+PHLANGR+REV

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	--	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	--	005	Pos Frac	DRY	0,127	00 to 99
39	00	--	006	Pos Frac	DIST MIX	0,127	00 to 99
39	01	--	007	Pos Frac	LEVEL	0,127	00 to 99
39	02	--	008	Signed Frac	PAN	-128,127	-99 to +99
39	03	--	009	Pos Frac	PREAMP	0,127	00 to 99
39	04	--	014	Pos Frac	MAIN	0,127	00 to 99
39	05	--	013	Signed Frac	BIAS	-127,127	-99 to +99
40	01	--	010	Word	TONE	0,8000	0000 to 8000
40	02	--	012	Pos Frac	RESONANCE	0,127	00 to 99
41	00	--	015	Signed Frac	PHLANGR MIX	-127,127	-99 to +99
41	01	--	016	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	PAN	-127,127	-99 to +99
41	04	--	018	Pos Int	RATE	0,127	000 to 127
41	05	--	019	Signed Frac	REGEN	-127,127	-99 to +99
42	01	--	021	Signed Int	PHASE CENTER	-127,127	-127 to +127
42	02	--	020	Pos Int	WIDTH	0,127	000 to 127
42	04	--	023	Pos Int	FLANGE CENTER	0,127	000 to 127
42	05	--	022	Pos Int	WIDTH	0,127	000 to 127
43	01	--	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	--	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	--	034	Table	MOD SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,28	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 13 (index 55) :
10 pages with 35 parameters

PARAM EQ+PHLANGR+REV

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
38	02	-	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	-	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	-	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	-	005	Pos Frac	DRY	0,127	00 to 99
39	00	-	006	Pos Frac	EQ INPUT	0,127	00 to 99
39	01	-	007	Pos Frac	OUTPUT	0,127	00 to 99
39	02	-	008	Signed Frac	PAN	-128,127	-99 to +99
39	03	-	012	Word	MID FC	0,15000	00000 to 15000
39	04	-	014	Table	BW	0,42	Size: 3 [Log BW Table - #27]
39	05	-	011	Signed Int	LEVEL	-99,48	-99 to +48 dB
40	02	-	009	Signed Int	BASS LEVEL	-99,48	-99 to +48 dB
40	05	-	010	Signed Int	TREBLE LEVEL	-99,48	-99 to +48 dB
41	00	-	015	Signed Frac	PHLANGR MIX	-127,127	-99 to +99
41	01	-	016	Pos Frac	LEVEL	0,127	00 to 99
41	02	-	017	Signed Frac	PAN	-127,127	-99 to +99
41	04	-	018	Pos Int	RATE	0,127	000 to 127
41	05	-	019	Signed Frac	REGEN	-127,127	-99 to +99
42	01	-	021	Signed Int	PHASE CENTER	-127,127	-127 to +127
42	02	-	020	Pos Int	WIDTH	0,127	000 to 127
42	04	-	023	Pos Int	FLANGE CENTER	0,127	000 to 127
42	05	-	022	Pos Int	WIDTH	0,127	000 to 127
43	01	-	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	-	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	-	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	-	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	-	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	-	034	Table	MOD SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	-	035	Table Ptr	DEST	0,28	Size: ? [Param Names]
45	03	-	036	Type: ?	MIN	(depends on Destination param)	
45	05	-	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 14 (index 67) : ENV VCF+PHLANGR+REV
 10 pages with 38 parameters

36	02	-	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	-	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	-	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	-	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	-	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	-	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	-	005	Pos Frac	DRY	0,127	00 to 99
39	00	-	006	Pos Int	VCF FC	0,127	000 to 127
39	01	-	013	Pos Frac	LEVEL	0,127	00 to 99
39	02	-	014	Signed Frac	PAN	-127,127	-99 to +99
39	03	-	007	Pos Frac	BW	0,127	00 to 99
39	04	-	012	Table Lo	ENV AMT	0,15	Size: 2 [00 to 15]
39	05	-	012	Table Hi	KBD AMT	0,15	Size: 2 [00 to 15]
40	00	-	008	Table	ATTACK	0,58	Size: 8 [Env Time Table 1 - #28]
40	02	-	009	Table	DECAY	0,58	Size: 8 [Env Time Table 1 - #28]
40	03	-	010	Pos Int	SUSTN	0,63	00 to 63
40	04	-	011	Table	RELEASE	0,58	Size: 8 [Env Time Table 1 - #28]
40	05	-	007	Bit Table (7)	TRIG	0,1	Size: 6 [SINGLE or MULTI]
41	00	-	015	Signed Frac	PHLANGR MIX	-127,127	-99 to +99
41	01	-	016	Pos Frac	LEVEL	0,127	00 to 99
41	02	-	017	Signed Frac	PAN	-127,127	-99 to +99
41	04	-	018	Pos Int	RATE	0,127	000 to 127
41	05	-	019	Signed Frac	REGEN	-127,127	-99 to +99
42	01	-	021	Signed Int	PHASE CENTER	-127,127	-127 to +127
42	02	-	020	Pos Int	WIDTH	0,127	000 to 127
42	04	-	023	Pos Int	FLANGE CENTER	0,127	000 to 127
42	05	-	022	Pos Int	WIDTH	0,127	000 to 127
43	01	-	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	-	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	-	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	-	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	-	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	-	034	Table	MOD SRC	0,13	Size: 5 [FX Mod Src Table - #20]

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
45	02	--	035	Table Ptr	DEST	0,31	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	
Algorithm 15 (index 46) :						DDL+ROTOSPKR+REV	
10 pages with 34 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	---	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	--	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	--	005	Pos Frac	DRY	0,127	00 to 99
39	00	--	010	Pos Frac	DDL MIX	0,127	00 to 99
39	01	--	013	Pos Frac	LEVEL	0,127	00 to 99
39	02	--	014	Signed Frac	PAN	-127,127	-99 to +99
40	01	--	011	Signed Frac	DDL REGEN L	-127,127	-99 to +99
40	02	--	012	Pos Frac	DAMPING	0,127	00 to 99
40	04	--	006	Word	DELAY TIME L	0,1000	0000 to 1000 msec
40	05	--	008	Word	DELAY TIME R	0,1000	0000 to 1000 msec
41	00	--	015	Table	ROTO STEREO	0,1	Size: 4 [Off On Table - #38]
41	01	--	016	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	PAN	-127,127	-99 to +99
41	04	--	018	Pos Frac	AM DEPTH	0,127	00 to 99
41	05	--	019	Pos Frac	FM DEPTH	0,127	00 to 99
42	00	--	020	Pos Frac	ROTO SLOW	0,127	00 to 99
42	01	--	021	Pos Frac	FAST	0,127	00 to 99
42	02	--	022	Pos Frac	INERTIA	0,127	00 to 99
42	05	--	023	Table	SPEED	0,1	Size: 4 [Speed Table - #37]
43	01	--	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	--	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,27	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	
Algorithm 16 (index 59) :						EQ--DDL+ROTOSPKR+REV	
10 pages with 36 parameters							
36	02	--	000	Unsigned Int	0,73	0,73	Algorithm Select
36	05	---	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	--	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	--	005	Pos Frac	DRY	0,127	00 to 99
39	00	--	009	Pos Frac	EQDDL MIX	0,127	00 to 99
39	01	--	013	Pos Frac	LEVEL	0,127	00 to 99
39	02	--	014	Signed Frac	PAN	-127,127	-99 to +99
39	03	--	006	Table	EQ FC	0,33	Size: 3 [Log Freq Table - #25]
39	04	--	007	Table	BW	0,42	Size: 3 [Log BW Table - #26]
39	05	--	008	Signed Int	LEVEL	-99,48	-99 to +48
40	01	--	011	Signed Frac	EQDDL REGEN	-127,127	-99 to +99
40	02	--	012	Pos Frac	DAMPING	0,127	00 to 99
40	05	--	010	Table	TIME	0,71	Size: 3 [DDL Time Table - #27]
41	00	--	015	Table	ROTO STEREO	0,1	Size: 4 [Off On Table - #38]
41	01	--	016	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	PAN	-127,127	-99 to +99
41	04	--	018	Pos Frac	AM DEPTH	0,127	00 to 99
41	05	--	019	Pos Frac	FM DEPTH	0,127	00 to 99
42	00	--	020	Pos Frac	ROTO SLOW	0,127	00 to 99
42	01	--	021	Pos Frac	FAST	0,127	00 to 99
42	02	--	022	Pos Frac	INERTIA	0,127	00 to 99
42	05	--	023	Table	SPEED	0,1	Size: 4 [Speed Table - #37]
43	01	--	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	--	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,29	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	
Algorithm 17 (index 65) :					DELAYLFO+ROTOSPKR+REV		
10 pages with 36 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	--	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	--	005	Pos Frac	DRY	0,127	00 to 99
39	01	--	013	Pos Frac	DELAYLFO LEVEL	0,127	00 to 99
39	02	--	014	Signed Frac	PAN	-127,127	-99 to +99
39	04	--	006	Pos Frac	WET	0,127	00 to 99
39	05	--	007	Pos Frac	DRY	0,127	00 to 99
40	00	--	010	Pos Int	DELAYLFO CENTER	0,127	000 to 127
40	01	--	008	Pos Int	RATE	0,127	000 to 127
40	02	--	009	Pos Int	WIDTH	0,127	000 to 127
40	04	--	012	Pos Frac	R LFO PHASE	0,127	00 to 99
40	05	--	011	Signed Frac	REGEN	-127,127	-99 to +99
41	00	--	015	Table	ROTO STEREO	0,1	Size: 4 [Off On Table - #38]
41	01	--	016	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	PAN	-127,127	-99 to +99
41	04	--	018	Pos Frac	AM DEPTH	0,127	00 to 99
41	05	--	019	Pos Frac	FM DEPTH	0,127	00 to 99
42	00	--	020	Pos Frac	ROTO SLOW	0,127	00 to 99
42	01	--	021	Pos Frac	FAST	0,127	00 to 99
42	02	--	022	Pos Frac	INERTIA	0,127	00 to 99
42	05	--	023	Table	SPEED	0,1	Size: 4 [Speed Table - #37]
43	01	--	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	--	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,29	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	
Algorithm 18 (index 62) :					ROTOSPKR+ROTOSPKR+REV		
10 pages with 36 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	--	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	--	005	Pos Frac	DRY	0,127	00 to 99
39	00	--	006	Table	ROTO A STEREO	0,1	Size: 4 [Off On Table - #38]
39	01	--	007	Pos Frac	LEVEL	0,127	00 to 99
39	02	--	008	Signed Frac	PAN	-127,127	-99 to +99
39	04	--	009	Pos Frac	AM DEPTH	0,127	00 to 99
39	05	--	010	Pos Frac	FM DEPTH	0,127	00 to 99
40	00	--	011	Pos Frac	ROTO SLOW	0,127	00 to 99
40	01	--	012	Pos Frac	FAST	0,127	00 to 99
40	02	--	013	Pos Frac	INERTIA	0,127	00 to 99
40	05	--	014	Table	SPEED	0,1	Size: 4 [Speed Table - #37]
41	00	--	015	Table	ROTO B STEREO	0,1	Size: 4 [Off On Table - #38]
41	01	--	016	Pos Frac	LEVEL	0,127	00 to 99

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
41	02	—	017	Signed Frac	PAN	-127,127	-99 to +99
41	04	—	018	Pos Frac	AM DEPTH	0,127	00 to 99
41	05	—	019	Pos Frac	FM DEPTH	0,127	00 to 99
42	00	—	020	Pos Frac	ROTO SLOW	0,127	00 to 99
42	01	—	021	Pos Frac	FAST	0,127	00 to 99
42	02	—	022	Pos Frac	INERTIA	0,127	00 to 99
42	05	—	023	Table	SPEED	0,1	Size: 4 [Speed Table - #37]
43	01	—	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	—	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	—	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	—	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	—	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	—	035	Table Ptr	DEST	0,29	Size: ? [Param Names]
45	03	—	036	Type: ?	MIN	(depends on Destination param)	
45	05	—	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 19 (index 49) :
10 pages with 35 parameters

DISTORT+ROTOSPKR+REV

36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	—	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	—	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	—	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	—	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	—	005	Pos Frac	DRY	0,127	00 to 99
39	00	—	006	Pos Frac	DIST MIX	0,127	00 to 99
39	01	—	007	Pos Frac	LEVEL	0,127	00 to 99
39	02	—	008	Signed Frac	PAN	-128,127	-99 to +99
39	03	—	009	Pos Frac	PREAMP	0,127	00 to 99
39	04	—	014	Pos Frac	MAIN	0,127	00 to 99
39	05	—	013	Signed Frac	BIAS	-127,127	-99 to +99
40	01	—	010	Word	TOPE	0,8000	0000 to 8000
40	02	—	012	Pos Frac	RESONANCE	0,127	00 to 99
41	00	—	015	Table	ROTO STEREO	0,1	Size: 4 [Off On Table - #38]
41	01	—	016	Pos Frac	LEVEL	0,127	00 to 99
41	02	—	017	Signed Frac	PAN	-127,127	-99 to +99
41	04	—	018	Pos Frac	AM DEPTH	0,127	00 to 99
41	05	—	019	Pos Frac	FM DEPTH	0,127	00 to 99
42	00	—	020	Pos Frac	ROTO SLOW	0,127	00 to 99
42	01	—	021	Pos Frac	FAST	0,127	00 to 99
42	02	—	022	Pos Frac	INERTIA	0,127	00 to 99
42	05	—	023	Table	SPEED	0,1	Size: 4 [Speed Table - #37]
43	01	—	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	—	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	—	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	—	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	—	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	—	035	Table Ptr	DEST	0,28	Size: ? [Param Names]
45	03	—	036	Type: ?	MIN	(depends on Destination param)	
45	05	—	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 20 (index 56) :
10 pages with 35 parameters

PARAM EQ+ROTOSPKR+REV

36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	—	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	—	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	—	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	—	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	—	005	Pos Frac	DRY	0,127	00 to 99
39	00	—	006	Pos Frac	EQ INPUT	0,127	00 to 99
39	01	—	007	Pos Frac	OUTPUT	0,127	00 to 99
39	02	—	008	Signed Frac	PAN	-128,127	-99 to +99

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
39	03	--	012	Word	MID FC	0,15000	00000 to 15000
39	04	--	014	Table	BW	0,42	Size: 3 [Log BW Table - #27]
39	05	--	011	Signed Int	LEVEL	-99,48	-99 to +48 dB
40	02	--	009	Signed Int	BASS LEVEL	-99,48	-99 to +48 dB
40	05	--	010	Signed Int	TREBLE LEVEL	-99,48	-99 to +48 dB
41	00	--	015	Table	ROTO STEREO	0,1	Size: 4 [Off On Table - #38]
41	01	--	016	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	PAN	-127,127	-99 to +99
41	04	--	018	Pos Frac	AM DEPTH	0,127	00 to 99
41	05	--	019	Pos Frac	FM DEPTH	0,127	00 to 99
42	00	--	020	Pos Frac	ROTO SLOW	0,127	00 to 99
42	01	--	021	Pos Frac	FAST	0,127	00 to 99
42	02	--	022	Pos Frac	INERTIA	0,127	00 to 99
42	05	--	023	Table	SPEED	0,1	Size: 4 [Speed Table - #37]
43	01	--	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	--	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,28	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 21 (index 68) : ENV VCF+ROTOSPKR+REV
 10 pages with 38 parameters

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,19	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	--	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	--	005	Pos Frac	DRY	0,127	00 to 99
39	00	--	006	Pos Int	VCF FC	0,127	000 to 127
39	01	--	013	Pos Frac	LEVEL	0,127	00 to 99
39	02	--	014	Signed Frac	PAN	-127,127	-99 to +99
39	03	--	007	Pos Frac	BW	0,127	00 to 99
39	04	--	012	Table Lo	ENV AMT	0,15	Size: 2 [00 to 15]
39	05	--	012	Table Hi	KBD AMT	0,15	Size: 2 [00 to 15]
40	00	--	008	Table	ATTACK	0,58	Size: 8 [Env Time Table 1 - #28]
40	02	--	009	Table	DECAY	0,58	Size: 8 [Env Time Table 1 - #28]
40	03	--	010	Pos Int	SUSTN	0,63	00 to 63
40	04	--	011	Table	RELEASE	0,58	Size: 8 [Env Time Table 1 - #28]
40	05	--	007	Bit Table (7)	TRIG	0,1	Size: 6 [SINGLE or MULTI]
41	00	--	015	Table	ROTO STEREO	0,1	Size: 4 [Off On Table - #38]
41	01	--	016	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	PAN	-127,127	-99 to +99
41	04	--	018	Pos Frac	AM DEPTH	0,127	00 to 99
41	05	--	019	Pos Frac	FM DEPTH	0,127	00 to 99
42	00	--	020	Pos Frac	ROTO SLOW	0,127	00 to 99
42	01	--	021	Pos Frac	FAST	0,127	00 to 99
42	02	--	022	Pos Frac	INERTIA	0,127	00 to 99
42	05	--	023	Table	SPEED	0,1	Size: 4 [Speed Table - #37]
43	01	--	024	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	--	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,31	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
Algorithm 22 (index 51) :					PLATE + PLATE REVERBS		
8 pages with 32 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,9	Size: 18 [FX Variations]
37	01	--	001	Pos Frac	FX1--PLATE REVERB1	0,127	00 to 99
37	02	--	002	Pos Frac	FX1 DRY	0,127	00 to 99
37	04	--	003	Pos Frac	FX2--PLATE REVERB2	0,127	00 to 99
37	05	--	004	Pos Frac	FX2 DRY	0,127	00 to 99
38	01	--	005	Table	REVB1 - DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
38	02	--	006	Word	PRE-DLY TIME	0,300	0000 to 0300 ms
38	04	--	008	Pos Frac	HF - DAMPING	0,127	00 to 99
38	05	--	009	Pos Frac	BANDWIDTH	0,127	00 to 99
39	01	--	013	Unsigned Int	DETUNE - RATE	0,99	00 to 99
39	02	--	014	Pos Frac	DEPTH	0,127	00 to 99
39	04	--	012	Pos Int	DEFINITION	0,99	00 to 99
39	05	00	010	Pos Frac	DIFFUSION .1	0,127	00 to 99
39	05	01	011	Pos Frac	DIFFUSION .2	0,127	00 to 99
40	01	--	015	Table	REVB2 - DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
40	02	--	016	Word	PRE-DLY TIME	0,300	0000 to 0300 ms
40	04	--	018	Pos Frac	HF - DAMPING	0,127	00 to 99
40	05	--	019	Pos Frac	BANDWIDTH	0,127	00 to 99
41	01	--	023	Unsigned Int	DETUNE - RATE	0,99	00 to 99
41	02	--	024	Pos Frac	DEPTH	0,127	00 to 99
41	04	--	022	Pos Int	DEFINITION	0,99	00 to 99
41	05	00	020	Pos Frac	DIFFUSION .1	0,127	00 to 99
41	05	01	021	Pos Frac	DIFFUSION .2	0,127	00 to 99
42	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	--	035	Table Ptr	DEST	0,21	Size: ? [Param Names]
42	03	--	036	Type: ?	MIN	(depends on Destination param)	
42	05	--	038	Type: ?	MAX	(depends on Destination param)	
43	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	--	029	Table Ptr	DEST	0,21	Size: ? [Param Names]
43	03	--	030	Type: ?	MIN	(depends on Destination param)	
43	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 23 (index 43) :
8 pages with 32 parameters

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
Algorithm 23 (index 43) :					PARAMETRIC EQ + PLATE		
8 pages with 32 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,10	Size: 18 [FX Variations]
37	01	--	001	Pos Frac	FX1--EQ	0,127	00 to 99
37	02	--	002	Pos Frac	EQ--REVRB	0,127	00 to 99
37	04	--	003	Pos Frac	FX2--REVRB	0,127	00 to 99
37	05	--	004	Pos Frac	FX2 DRY	0,127	00 to 99
38	00	--	005	Pos Frac	EQ INPUT	0,127	00 to 99
38	02	--	017	Pos Frac	OUTPUT	0,127	00 to 99
38	03	--	012	Word	MID FC	0,15000	00000 to 15000 Hz
38	04	--	014	Word	BW	0,15000	00000 to 15000 Hz
38	05	--	016	Signed Int	LEVEL	-99,48	-99 to +48 dB
39	01	--	006	Word	BASS FC	0,15000	00000 to 15000 Hz
39	02	--	010	Signed Int	LEVEL	-99,48	-99 to +48 dB
39	04	--	008	Word	TREBLE FC	0,15000	00000 to 15000 Hz
39	05	--	011	Signed Int	LEVEL	-99,48	-99 to +48 dB
40	01	--	018	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
40	02	--	020	Word	PRE-DLY TIME	0,300	0000 to 0300 ms
40	04	--	019	Pos Frac	HF - DAMPING	0,127	00 to 99
40	05	--	022	Pos Frac	BANDWIDTH	0,127	00 to 99
41	01	--	026	Unsigned Int	DETUNE - RATE	0,99	00 to 99
41	02	--	027	Pos Frac	DEPTH	0,127	00 to 99
41	04	--	025	Pos Int	DEFINITION	0,99	00 to 99
41	05	00	023	Pos Frac	DIFFUSION .1	0,127	00 to 99
41	05	01	024	Pos Frac	DIFFUSION .2	0,127	00 to 99
42	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	--	035	Table Ptr	DEST	0,21	Size: ? [Param Names]
42	03	--	036	Type: ?	MIN	(depends on Destination param)	
42	05	--	038	Type: ?	MAX	(depends on Destination param)	
43	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	--	029	Table Ptr	DEST	0,21	Size: ? [Param Names]
43	03	--	030	Type: ?	MIN	(depends on Destination param)	
43	05	--	032	Type: ?	MAX	(depends on Destination param)	

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
Algorithm 24 (index 05) :					SMALL PLATE REVERB		
7 pages with 24 parameters							
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,9	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX1 REVERB	0,127	00 to 99
37	05	—	002	Pos Frac	FX2 REVERB	0,127	00 to 99
38	01	—	003	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 2 - #22]
38	02	—	004	Word	PRE-DLY TIME	0,500	0000 to 0500 msec
38	04	—	006	Pos Frac	HF - DAMPING	0,127	00 to 99
38	05	—	007	Pos Frac	BANDWIDTH	0,127	00 to 99
39	01	—	015	Signed Frac	L/R BALANCE	-128,127	-99 to +99
39	02	—	008	Pos Int	DIFFUSION-1	0,99	00 to 99
39	04	—	010	Pos Frac	DEFINITION	0,127	00 to 99
39	05	—	009	Pos Int	DIFFUSION-2	0,99	00 to 99
Note: Early Reflection Levels							
40	02	—	011	Signed Frac	LEV-1	-128,127	-99 to +99
40	03	—	012	Signed Frac	LEV-2	-128,127	-99 to +99
40	04	—	013	Signed Frac	LEV-3	-128,127	-99 to +99
40	05	—	014	Signed Frac	LEV-4	-128,127	-99 to +99

Algorithm 25 (index 06) :					LARGE PLATE REVERB 1		
7 pages with 24 parameters							
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,9	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX1 REVERB	0,127	00 to 99
37	05	—	002	Pos Frac	FX2 REVERB	0,127	00 to 99
38	01	—	003	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
38	02	—	004	Word	PRE-DLY TIME	0,500	0000 to 0500 msec
38	04	—	006	Pos Frac	HF - DAMPING	0,127	00 to 99
38	05	—	007	Pos Frac	BANDWIDTH	0,127	00 to 99
39	01	—	015	Signed Frac	L/R BALANCE	-128,127	-99 to +99
39	02	—	008	Pos Int	DIFFUSION-1	0,99	00 to 99
39	04	—	010	Pos Frac	DEFINITION	0,127	00 to 99
39	05	—	009	Pos Int	DIFFUSION-2	0,99	00 to 99
Note: Early Reflection Levels							
40	02	—	011	Signed Frac	LEV-1	-128,127	-99 to +99
40	03	—	012	Signed Frac	LEV-2	-128,127	-99 to +99
40	04	—	013	Signed Frac	LEV-3	-128,127	-99 to +99
40	05	—	014	Signed Frac	LEV-4	-128,127	-99 to +99
41	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	—	035	Table Ptr	DEST	0,13	Size: ? [Param Names]
41	03	—	036	Type: ?	MIN	(depends on Destination param)	
41	05	—	038	Type: ?	MAX	(depends on Destination param)	
42	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	—	029	Table Ptr	DEST	0,13	Size: ? [Param Names]
42	03	—	030	Type: ?	MIN	(depends on Destination param)	
42	05	—	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 26 (index 82) :					LARGE PLATE REVERB 2		
8 pages with 28 parameters							
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,9	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	01	—	003	Table	DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
38	02	—	006	Word	PRE-DLY TIME	0,300	0000 to 0300 ms
38	04	—	005	Pos Frac	HF - DAMPING	0,127	00 to 99
38	05	—	008	Pos Frac	BANDWIDTH	0,127	00 to 99
39	01	—	004	Signed Frac	LF DECAY TIME	-128,127	-99 to +99
39	02	—	011	Pos Int	DEFINITION	0,99	00 to 99
39	05	00	009	Pos Frac	DIFFUSION .1	0,127	00 to 99
39	05	01	010	Pos Frac	DIFFUSION .2	0,127	00 to 99
40	01	—	014	Word	SPREAD	0,31129	00000 to 31129
40	02	—	016	Signed Frac	SHAPE	-127,127	-99 to +99
40	05	00	017	Signed Frac	FRONT-TO-BACK .1	-128,127	-99 to +99
40	05	01	018	Signed Frac	FRONT-TO-BACK .2	-128,127	-99 to +99
40	05	02	019	Signed Frac	FRONT-TO-BACK .3	-128,127	-99 to +99

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
41	01	--	012	Pos Int	DETUNE - RATE	0,99	00 to 99
41	02	--	013	Pos Frac	DEPTH	0,127	00 to 99
41	05	--	020	Signed Frac	L/R BALANCE	-128,127	-99 to +99
42	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	--	035	Table Ptr	DEST	0,17	Size: ? [Param Names]
42	03	--	036	Type: ?	MIN	(depends on Destination param)	
42	05	--	038	Type: ?	MAX	(depends on Destination param)	
43	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	--	029	Table Ptr	DEST	0,17	Size: ? [Param Names]
43	03	--	030	Type: ?	MIN	(depends on Destination param)	
43	05	--	032	Type: ?	MAX	(depends on Destination param)	
Algorithm 27 (index 03) :					HALL REVERB 1		
6 pages with 20 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,4	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	01	--	003	Table	DECAY TIME	0,127	Size: 4 [Decay Time Table 2 - #22]
38	02	--	012	Word	PRE-DLY TIME	0,500	0000 to 0500 msec
38	04	--	006	Pos Frac	HF - DAMPING	0,127	00 to 99
38	05	--	007	Pos Frac	BANDWIDTH	0,127	00 to 99
39	01	--	004	Signed Frac	LF DECAY	-128,127	-99 to +99
39	02	--	005	Pos Frac	DIFFUSION	0,127	00 to 99
39	04	--	008	Pos Int	DETUNE - RATE	0,99	00 to 99
39	05	--	009	Pos Frac	DEPTH	0,127	00 to 99
40	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
40	02	--	035	Table Ptr	DEST	0,9	Size: ? [Param Names]
40	03	--	036	Type: ?	MIN	(depends on Destination param)	
40	05	--	038	Type: ?	MAX	(depends on Destination param)	
41	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	--	029	Table Ptr	DEST	0,9	Size: ? [Param Names]
41	03	--	030	Type: ?	MIN	(depends on Destination param)	
41	05	--	032	Type: ?	MAX	(depends on Destination param)	
Algorithm 28 (index 04) :					HALL REVERB 2		
9 pages with 32 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,6	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	01	--	003	Table	DECAY TIME	0,127	Size: 4 [Decay Time Table 3 - #23]
38	02	--	006	Word	PRE-DLY TIME	0,500	0000 to 0500 ms
38	04	--	008	Pos Frac	HF - DAMPING	0,127	00 to 99
38	05	--	009	Pos Frac	BANDWIDTH	2,127	01 to 99
39	01	--	004	Signed Frac	LF DECAY TIME	-128,127	-99 to +99
39	02	--	010	Pos Int	DEFINITION	0,99	00 to 99
39	04	--	012	Pos Frac	DIFFUSION-1	0,127	00 to 99
39	05	--	011	Pos Int	DIFFUSION-2	0,99	00 to 99
40	00	--	016	Word	REFL-1 TIME	0,120	0000 to 0120 ms
40	01	--	018	Pos Frac	LEVEL	0,127	00 to 99
40	02	--	019	Pos Frac	SEND	0,127	00 to 99
40	03	--	020	Word	REFL-2 TIME	0,120	0000 to 0120 ms
40	04	--	022	Pos Frac	LEVEL	0,127	00 to 99
40	05	--	023	Pos Frac	SEND	0,127	00 to 99
41	01	--	013	Pos Int	DETUNE - RATE	0,99	00 to 99
41	02	--	014	Pos Frac	DEPTH	0,127	00 to 99
41	05	--	015	Signed Frac	PRIMARY SEND	-128,127	-99 to +99
42	03	--	024	Signed Frac	REVB POS BAL-1	-128,127	-99 to +99
42	04	--	025	Signed Frac	BAL-2	-128,127	-99 to +99
42	05	--	026	Signed Frac	BAL-3	-128,127	-99 to +99
43	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	--	035	Table Ptr	DEST	0,21	Size: ? [Param Names]
43	03	--	036	Type: ?	MIN	(depends on Destination param)	
43	05	--	038	Type: ?	MAX	(depends on Destination param)	
44	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
44	02	--	029	Table Ptr	DEST	0,21	Size: ? [Param Names]
44	03	--	030	Type: ?	MIN	(depends on Destination param)	
44	05	--	032	Type: ?	MAX	(depends on Destination param)	

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
Algorithm 29 (index 50) :					HALL REVERB 3		
9 pages with 36 parameters							
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,9	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	01	—	003	Table	DECAY TIME	0,127	Size: 4 [Decay Time Table 3 - #23]
38	02	—	006	Unsigned Int	PRE-DLY TIME	0,255	0000 to 0750 ms
38	04	—	007	Pos Frac	HF - DAMPING	0,127	00 to 99
38	05	—	008	Pos Frac	BANDWIDTH	0,127	00 to 99
39	01	—	004	Signed Frac	LF DECAY	-128,127	-99 to +99
39	02	—	011	Pos Frac	DEFINITION	0,127	00 to 99
39	04	—	005	Pos Frac	DECAY DIFFUSION	0,127	00 to 99
39	05	00	009	Pos Frac	INPUT DIFFUS .1	0,127	00 to 99
39	05	01	010	Pos Frac	INPUT DIFFUS .2	0,127	00 to 99
40	00	—	014	Unsigned Int	REFL-1 TIME	0,150	0000 to 0150 msec
40	01	—	015	Pos Frac	REFL-1 LEVEL	0,127	00 to 99
40	02	—	016	Pos Frac	REFL-1 SEND	0,127	00 to 99
40	03	—	017	Unsigned Int	REFL-2 TIME	0,150	0000 to 0150 msec
40	04	—	018	Pos Frac	REFL-2 LEVEL	0,127	00 to 99
40	05	—	019	Pos Frac	REF-2 SEND	0,127	00 to 99
41	01	—	022	Word	SPREAD	0,31129	00000 to 31129
41	02	—	024	Signed Frac	SHAPE	-127,127	-99 to +99
41	05	00	025	Signed Frac	FRONT-TO-BACK .1	-128,127	-99 to +99
41	05	01	026	Signed Frac	FRONT-TO-BACK .2	-128,127	-99 to +99
41	05	02	027	Signed Frac	FRONT-TO-BACK .3	-128,127	-99 to +99
42	01	—	012	Pos Int	DETUNE - RATE	0,99	00 to 99
42	02	—	013	Pos Frac	DEPTH	0,127	00 to 99
42	04	—	021	Signed Frac	L/R BALANCE	-128,127	-99 to +99
42	05	—	020	Signed Frac	PRIMARY SEND	-128,127	-99 to +99
43	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	—	035	Table Ptr	DEST	0,25	Size: ? [Param Names]
43	03	—	036	Type: ?	MIN	(depends on Destination param)	
43	05	—	038	Type: ?	MAX	(depends on Destination param)	
44	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
44	02	—	029	Table Ptr	DEST	0,25	Size: ? [Param Names]
44	03	—	030	Type: ?	MIN	(depends on Destination param)	
44	05	—	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 30 (index 00) :
6 pages with 20 parameters

Algorithm 30 (index 00) :					SMALL ROOM REVERB		
6 pages with 20 parameters							
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	01	—	003	Table	DECAY TIME	0,127	Size: 4 [Decay Time Table 2 - #22]
38	02	—	012	Word	PRE-DLY TIME	0,500	0000 to 0500
38	04	—	006	Pos Frac	HF - DAMPING	0,127	00 to 99
38	05	—	007	Pos Frac	BANDWIDTH	0,127	00 to 99
39	01	—	004	Signed Frac	LF DECAY	-128,127	-99 to +99
39	02	—	005	Pos Frac	DIFFUSION	0,127	00 to 99
39	04	—	008	Pos Int	DETUNE - RATE	0,99	00 to 99
39	05	—	009	Pos Frac	DEPTH	0,127	00 to 99
40	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
40	02	—	035	Table Ptr	DEST	0,9	Size: ? [Param Names]
40	03	—	036	Type: ?	MIN	(depends on Destination param)	
40	05	—	038	Type: ?	MAX	(depends on Destination param)	
41	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	—	029	Table Ptr	DEST	0,9	Size: ? [Param Names]
41	03	—	030	Type: ?	MIN	(depends on Destination param)	
41	05	—	032	Type: ?	MAX	(depends on Destination param)	

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
Algorithm 31 (index 52) :					MEDIUM ROOM REVERB		
8 pages with 32 parameters							
36	02	---	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	---	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	---	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	---	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	01	---	003	Table	DECAY TIME	0,63	Size: 4 [Decay Time Table 2 - #22]
38	02	---	006	Word	PRE-DLY TIME	0,750	0000 to 0750 msec
38	04	---	005	Pos Frac	HF - DAMPING	0,127	00 to 99
38	05	---	008	Pos Frac	BANDWIDTH	0,127	00 to 99
39	01	---	004	Signed Frac	LF DECAY TIME	-128,127	-99 to +99
39	02	---	013	Pos Frac	DEFINITION	0,127	00 to 99
39	05	00	009	Pos Frac	INPUT DIFFUSION 1	0,127	00 to 99
39	05	01	010	Pos Frac	INPUT DIFFUSION 2	0,127	00 to 99
39	05	02	011	Pos Frac	INPUT DIFFUSION 3	0,127	00 to 99
39	05	03	012	Pos Frac	INPUT DIFFUSION 4	0,127	00 to 99
40	00	---	016	Word	REFL-1 TIME	0,150	0000 to 0150 msec
40	01	---	018	Pos Frac	REFL-1 LEVEL	0,127	00 to 99
40	02	---	019	Pos Frac	REFL-1 SEND	0,127	00 to 99
40	03	---	020	Word	REFL-2 TIME	0,150	0000 to 0150 msec
40	04	---	022	Pos Frac	REFL-2 LEVEL	0,127	00 to 99
40	05	---	023	Pos Frac	REF-2 SEND	0,127	00 to 99
41	01	---	014	Pos Int	DETUNE - RATE	0,99	00 to 99
41	02	---	015	Pos Frac	DEPTH	0,127	00 to 99
41	04	---	025	Signed Frac	L/R BALANCE	-128,127	-99 to +99
41	05	---	024	Signed Frac	PRIMARY SEND	-128,127	-99 to +99
42	00	---	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	---	035	Table Ptr	DEST	0,21	Size: ? [Param Names]
42	03	---	036	Type: ?	MIN	(depends on Destination param)	
42	05	---	038	Type: ?	MAX	(depends on Destination param)	
43	00	---	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	---	029	Table Ptr	DEST	0,21	Size: ? [Param Names]
43	03	---	030	Type: ?	MIN	(depends on Destination param)	
43	05	---	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 32 (index 80) :
8 pages with 32 parameters

Algorithm 32 (index 80) :					LARGE ROOM REVERB		
8 pages with 32 parameters							
36	02	---	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	---	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	---	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	---	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	01	---	003	Table	DECAY TIME	0,63	Size: 4 [Decay Time Table 4 - #24]
38	02	---	006	Word	PRE-DLY TIME	0,750	0000 to 0750 msec
38	04	---	005	Pos Frac	HF - DAMPING	0,127	00 to 99
38	05	---	008	Pos Frac	BANDWIDTH	0,127	00 to 99
39	01	---	004	Signed Frac	LF DECAY TIME	-128,127	-99 to +99
39	02	---	013	Pos Frac	DEFINITION	0,127	00 to 99
39	05	00	009	Pos Frac	INPUT DIFFUSION 1	0,127	00 to 99
39	05	01	010	Pos Frac	INPUT DIFFUSION 2	0,127	00 to 99
39	05	02	011	Pos Frac	INPUT DIFFUSION 3	0,127	00 to 99
39	05	03	012	Pos Frac	INPUT DIFFUSION 4	0,127	00 to 99
40	00	---	016	Word	REFL-1 TIME	0,150	0000 to 0150 msec
40	01	---	018	Pos Frac	REFL-1 LEVEL	0,127	00 to 99
40	02	---	019	Pos Frac	REFL-1 SEND	0,127	00 to 99
40	03	---	020	Word	REFL-2 TIME	0,150	0000 to 0150 msec
40	04	---	022	Pos Frac	REFL-2 LEVEL	0,127	00 to 99
40	05	---	023	Pos Frac	REF-2 SEND	0,127	00 to 99
41	01	---	014	Pos Int	DETUNE - RATE	0,99	00 to 99
41	02	---	015	Pos Frac	DEPTH	0,127	00 to 99
41	04	---	025	Signed Frac	L/R BALANCE	-128,127	-99 to +99
41	05	---	024	Signed Frac	PRIMARY SEND	-128,127	-99 to +99
42	00	---	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	---	035	Table Ptr	DEST	0,21	Size: ? [Param Names]
42	03	---	036	Type: ?	MIN	(depends on Destination param)	
42	05	---	038	Type: ?	MAX	(depends on Destination param)	
43	00	---	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	---	029	Table Ptr	DEST	0,21	Size: ? [Param Names]
43	03	---	030	Type: ?	MIN	(depends on Destination param)	
43	05	---	032	Type: ?	MAX	(depends on Destination param)	

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
Algorithm 33 (index 01) :					TIGHT AMBIENCE		
9 pages with 32 parameters							
36	02	---	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	---	---	Table	VAR	0,9	Size: 18 [FX Variations]
37	02	---	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	---	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	01	---	003	Table	DECAY TIME	0,127	Size: 4 [Decay Time Table 2 - #22]
38	02	---	006	Word	PRE-DLY TIME	0,500	0000 to 0500 msec
38	04	---	008	Pos Frac	HF - DAMPING	0,127	00 to 99
38	05	---	009	Pos Frac	BANDWIDTH	0,127	00 to 99
39	01	---	004	Signed Frac	LF DECAY TIME	-128,127	-99 to +99
39	02	---	010	Pos Int	DEFINITION	0,99	00 to 99
39	04	---	012	Pos Frac	DIFFUSION-1	0,127	00 to 99
39	05	---	011	Pos Int	DIFFUSION-2	0,99	00 to 99
40	00	---	016	Word	REFL-1 TIME	0,120	0000 to 0120 msec
40	01	---	018	Pos Frac	REFL-1 LEVEL	0,127	00 to 99
40	02	---	019	Pos Frac	REFL-1 SEND	0,127	00 to 99
40	03	---	020	Word	REFL-2 TIME	0,120	0000 to 0120 msec
40	04	---	022	Pos Frac	REFL-2 LEVEL	0,127	00 to 99
40	05	---	023	Pos Frac	REF-2 SEND	0,127	00 to 99
41	01	---	013	Pos Int	DETUNE - RATE	0,99	00 to 99
41	02	---	014	Pos Frac	DEPTH	0,127	00 to 99
41	05	---	015	Signed Frac	PRIMARY SEND	-128,127	-99 to +99
42	03	---	024	Signed Frac	POSITION BAL-1	-128,127	-99 to +99
42	04	---	025	Signed Frac	POSITION BAL-2	-128,127	-99 to +99
42	05	---	026	Signed Frac	POSITION BAL-3	-128,127	-99 to +99
43	00	---	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	---	035	Table Ptr	DEST	0,21	Size: ? [Param Names]
43	03	---	036	Type: ?	MIN	(depends on Destination param)	
43	05	---	038	Type: ?	MAX	(depends on Destination param)	
44	00	---	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
44	02	---	029	Table Ptr	DEST	0,21	Size: ? [Param Names]
44	03	---	030	Type: ?	MIN	(depends on Destination param)	
44	05	---	032	Type: ?	MAX	(depends on Destination param)	
Algorithm 34 (index 02) :					WIDE AMBIENCE		
9 pages with 32 parameters							
36	02	---	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	---	---	Table	VAR	0,9	Size: 18 [FX Variations]
37	02	---	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	---	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	01	---	003	Table	DECAY TIME	0,127	Size: 4 [Decay Time Table 4 - #24]
38	02	---	006	Word	PRE-DLY TIME	0,500	0000 to 0500 msec
38	04	---	008	Pos Frac	HF - DAMPING	0,127	00 to 99
38	05	---	009	Pos Frac	BANDWIDTH	0,127	00 to 99
39	01	---	004	Signed Frac	LF DECAY TIME	-128,127	-99 to +99
39	02	---	010	Pos Int	DEFINITION	0,99	00 to 99
39	04	---	012	Pos Frac	DIFFUSION-1	0,127	00 to 99
39	05	---	011	Pos Int	DIFFUSION-2	0,99	00 to 99
40	00	---	016	Word	REFL-1 TIME	0,120	0000 to 0120 msec
40	01	---	018	Pos Frac	REFL-1 LEVEL	0,127	00 to 99
40	02	---	019	Pos Frac	REFL-1 SEND	0,127	00 to 99
40	03	---	020	Word	REFL-2 TIME	0,120	0000 to 0120 msec
40	04	---	022	Pos Frac	REFL-2 LEVEL	0,127	00 to 99
40	05	---	023	Pos Frac	REF-2 SEND	0,127	00 to 99
41	01	---	013	Pos Int	DETUNE - RATE	0,99	00 to 99
41	02	---	014	Pos Frac	DEPTH	0,127	00 to 99
41	05	---	015	Signed Frac	PRIMARY SEND	-128,127	-99 to +99
42	03	---	024	Signed Frac	POSITION BAL-1	-128,127	-99 to +99
42	04	---	025	Signed Frac	POSITION BAL-2	-128,127	-99 to +99
42	05	---	026	Signed Frac	POSITION BAL-3	-128,127	-99 to +99
43	00	---	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	---	035	Table Ptr	DEST	0,21	Size: ? [Param Names]
43	03	---	036	Type: ?	MIN	(depends on Destination param)	
43	05	---	038	Type: ?	MAX	(depends on Destination param)	
44	00	---	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
44	02	---	029	Table Ptr	DEST	0,21	Size: ? [Param Names]
44	03	---	030	Type: ?	MIN	(depends on Destination param)	

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
44	05	—	032	Type: ?	MAX		(depends on Destination param)
Algorithm 35 (index 10) :					NONLINEAR REVERB 1		
8 pages with 33 parameters							
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	03	00	003	Pos Frac	ENVELOPE LEVEL .1	0,127	00 to 99
38	03	01	004	Pos Frac	ENVELOPE LEVEL .2	0,127	00 to 99
38	03	02	005	Pos Frac	ENVELOPE LEVEL .3	0,127	00 to 99
38	04	00	006	Pos Frac	ENVELOPE LEVEL .4	0,127	00 to 99
38	04	01	007	Pos Frac	ENVELOPE LEVEL .5	0,127	00 to 99
38	04	02	008	Pos Frac	ENVELOPE LEVEL .6	0,127	00 to 99
38	05	00	009	Pos Frac	ENVELOPE LEVEL .7	0,127	00 to 99
38	05	01	010	Pos Frac	ENVELOPE LEVEL .8	0,127	00 to 99
38	05	02	011	Pos Frac	ENVELOPE LEVEL .9	0,127	00 to 99
39	01	—	016	Pos Int	DENSITY-1	0,99	00 to 99
39	02	—	014	Pos Int	DENSITY-2	0,99	00 to 99
39	04	—	017	Pos Int	DIFFUSION-1	0,99	00 to 99
39	05	—	015	Pos Int	DIFFUSION-2	0,99	00 to 99
40	01	—	018	Signed Frac	PRIMARY SEND	-128,127	-99 to +99
40	02	—	027	Signed Frac	L/R BALANCE	-128,127	-99 to +99
40	04	—	012	Pos Frac	HF - DAMPING	0,127	00 to 99
40	05	—	013	Pos Frac	BANDWIDTH	0,127	00 to 99
41	01	—	020	Word	REFL-1 TIME	0,600	0000 to 0600 msec
41	02	—	022	Signed Frac	REFL-1 SEND	-128,127	-99 to +99
41	04	—	024	Word	REFL-2 TIME	0,600	0000 to 0600 msec
41	05	—	026	Signed Frac	REFL-2 SEND	-128,127	-99 to +99
42	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	—	035	Table Ptr	DEST	0,22	Size: ? [Param Names]
42	03	—	036	Type: ?	MIN		(depends on Destination param)
42	05	—	038	Type: ?	MAX		(depends on Destination param)
43	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	—	029	Table Ptr	DEST	0,22	Size: ? [Param Names]
43	03	—	030	Type: ?	MIN		(depends on Destination param)
43	05	—	032	Type: ?	MAX		(depends on Destination param)

Algorithm 36 (index 11) :
8 pages with 33 parameters

36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,4	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	03	00	003	Pos Frac	ENVELOPE LEVEL .1	0,127	00 to 99
38	03	01	004	Pos Frac	ENVELOPE LEVEL .2	0,127	00 to 99
38	03	02	005	Pos Frac	ENVELOPE LEVEL .3	0,127	00 to 99
38	04	00	006	Pos Frac	ENVELOPE LEVEL .4	0,127	00 to 99
38	04	01	007	Pos Frac	ENVELOPE LEVEL .5	0,127	00 to 99
38	04	02	008	Pos Frac	ENVELOPE LEVEL .6	0,127	00 to 99
38	05	00	009	Pos Frac	ENVELOPE LEVEL .7	0,127	00 to 99
38	05	01	010	Pos Frac	ENVELOPE LEVEL .8	0,127	00 to 99
38	05	02	011	Pos Frac	ENVELOPE LEVEL .9	0,127	00 to 99
39	01	—	016	Pos Int	DENSITY-1	0,99	00 to 99
39	02	—	014	Pos Int	DENSITY-2	0,99	00 to 99
39	04	—	017	Pos Int	DIFFUSION-1	0,99	00 to 99
39	05	—	015	Pos Int	DIFFUSION-2	0,99	00 to 99
40	01	—	018	Signed Frac	PRIMARY SEND	-128,127	-99 to +99
40	02	—	027	Signed Frac	L/R BALANCE	-128,127	-99 to +99
40	04	—	012	Pos Frac	HF - DAMPING	0,127	00 to 99
40	05	—	013	Pos Frac	BANDWIDTH	0,127	00 to 99
41	01	—	020	Word	REFL-1 TIME	0,85	0000 to 0085 msec
41	02	—	022	Signed Frac	REFL-1 SEND	-128,127	-99 to +99
41	04	—	024	Word	REFL-2 TIME	0,85	0000 to 0085 msec
41	05	—	026	Signed Frac	REFL-2 SEND	-128,127	-99 to +99
42	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	—	035	Table Ptr	DEST	0,22	Size: ? [Param Names]
42	03	—	036	Type: ?	MIN		(depends on Destination param)
42	05	—	038	Type: ?	MAX		(depends on Destination param)

pg	sl	Mi	Off	Type	Label	Internal	Displayed
43	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	--	029	Table Ptr	DEST	0,22	Size: ? [Param Names]
43	03	--	030	Type: ?	MIN	(depends on Destination param)	
43	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 37 (index 12) :
8 pages with 33 parameters

pg	sl	Mi	Off	Type	Label	Internal	Displayed
					NONLINEAR REVERB 3		
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,4	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	03	00	003	Pos Frac	ENVELOPE LEVEL .1	0,127	00 to 99
38	03	01	004	Pos Frac	ENVELOPE LEVEL .2	0,127	00 to 99
38	03	02	005	Pos Frac	ENVELOPE LEVEL .3	0,127	00 to 99
38	04	00	006	Pos Frac	ENVELOPE LEVEL .4	0,127	00 to 99
38	04	01	007	Pos Frac	ENVELOPE LEVEL .5	0,127	00 to 99
38	04	02	008	Pos Frac	ENVELOPE LEVEL .6	0,127	00 to 99
38	05	00	009	Pos Frac	ENVELOPE LEVEL .7	0,127	00 to 99
38	05	01	010	Pos Frac	ENVELOPE LEVEL .8	0,127	00 to 99
38	05	02	011	Pos Frac	ENVELOPE LEVEL .9	0,127	00 to 99
39	01	--	016	Pos Int	DENSITY-1	0,99	00 to 99
39	02	--	014	Pos Int	DENSITY-2	0,99	00 to 99
39	04	--	017	Pos Int	DIFFUSION-1	0,99	00 to 99
39	05	--	015	Pos Int	DIFFUSION-2	0,99	00 to 99
40	01	--	018	Signed Frac	PRIMARY SEND	-128,127	-99 to +99
40	02	--	027	Signed Frac	L/R BALANCE	-128,127	-99 to +99
40	04	--	012	Pos Frac	HF - DAMPING	0,127	00 to 99
40	05	--	013	Pos Frac	BANDWIDTH	0,127	00 to 99
41	01	--	020	Word	REFL-1 TIME	0,600	0000 to 0600 msec
41	02	--	022	Signed Frac	REFL-1 SEND	-128,127	-99 to +99
41	04	--	024	Word	REFL-2 TIME	0,600	0000 to 0600 msec
41	05	--	026	Signed Frac	REFL-2 SEND	-128,127	-99 to +99
42	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	--	035	Table Ptr	DEST	0,22	Size: ? [Param Names]
42	03	--	036	Type: ?	MIN	(depends on Destination param)	
42	05	--	038	Type: ?	MAX	(depends on Destination param)	
43	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	--	029	Table Ptr	DEST	0,22	Size: ? [Param Names]
43	03	--	030	Type: ?	MIN	(depends on Destination param)	
43	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 38 (index 09) :
9 pages with 29 parameters

pg	sl	Mi	Off	Type	Label	Internal	Displayed
					GATED REVERB		
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	01	--	009	Pos Frac	HF DAMPING	0,127	00 to 99
38	02	--	010	Pos Int	DEFINITION	0,99	00 to 99
38	04	--	012	Pos Frac	DIFFUSION-1	0,127	00 to 99
38	05	--	011	Pos Int	DIFFUSION-2	0,99	00 to 99
39	01	--	003	Table	ATTACK	0,62	Size: 8 [Env Time Table 3 - #33]
39	02	--	005	Table	DECAY	0,127	Size: 8 [Env Time Table 4 - #34]
39	04	--	004	Table	HOLD	0,62	Size: 8 [Env Time Table 3 - #33]
39	05	--	006	Table	RELEASE	0,62	Size: 8 [Env Time Table 3 - #33]
40	01	--	014	Word	SLAPBACK - TIME	0,500	0000 to 0500 msec
40	02	--	016	Pos Frac	LEVEL	0,127	00 to 99
40	04	--	008	Signed Int	RETRIG THRESH	-96,0	-96 to +00 dB
40	05	--	007	Signed Int	TRIG THRESH	-96,0	-96 to +00 dB
Note: Early Reflection Levels							
41	02	--	017	Signed Frac	LEV-1	-128,127	-99 to +99
41	03	--	018	Signed Frac	LEV-2	-128,127	-99 to +99
41	04	--	019	Signed Frac	LEV-3	-128,127	-99 to +99
41	05	--	020	Signed Frac	LEV-4	-128,127	-99 to +99
42	02	--	021	Signed Frac	L/R BALANCE	-128,127	-99 to +99
43	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	--	035	Table Ptr	DEST	0,18	Size: ? [Param Names]
43	03	--	036	Type: ?	MIN	(depends on Destination param)	
43	05	--	038	Type: ?	MAX	(depends on Destination param)	

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
44	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
44	02	—	029	Table Ptr	DEST	0,18	Size: ? [Param Names]
44	03	—	030	Type: ?	MIN		(depends on Destination param)
44	05	—	032	Type: ?	MAX		(depends on Destination param)

Algorithm 39 (index 07) : REVERSE REVERB 1
7 pages with 22 parameters

36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	01	—	007	Pos Frac	HF DAMPING	0,127	00 to 99
38	02	—	008	Pos Int	DEFINITION	0,99	00 to 99
38	04	—	010	Pos Frac	DIFFUSION-1	0,127	00 to 99
38	05	—	009	Pos Int	DIFFUSION-2	0,99	00 to 99
39	01	—	004	Table	ATTACK	0,62	Size: 8 [Env Time Table 3 - #33]
39	04	—	003	Table	HOLD	0,62	Size: 8 [Env Time Table 3 - #33]
39	05	—	005	Table	RELEASE	0,62	Size: 8 [Env Time Table 3 - #33]
40	01	—	012	Word	SLAPBACK - TIME	0,500	0000 to 0500 msec
40	02	—	014	Pos Frac	LEVEL	0,127	00 to 99
40	05	—	006	Signed Int	TRIG THRESH	-96,0	-96 to +00 dB
41	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	—	035	Table Ptr	DEST	0,11	Size: ? [Param Names]
41	03	—	036	Type: ?	MIN		(depends on Destination param)
41	05	—	038	Type: ?	MAX		(depends on Destination param)
42	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	—	029	Table Ptr	DEST	0,11	Size: ? [Param Names]
42	03	—	030	Type: ?	MIN		(depends on Destination param)
42	05	—	032	Type: ?	MAX		(depends on Destination param)

Algorithm 40 (index 08) : REVERSE REVERB 2
7 pages with 21 parameters

36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 REVERB	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	01	—	010	Pos Frac	HF DAMPING	0,127	00 to 99
38	02	—	011	Pos Int	DEFINITION	0,99	00 to 99
38	04	—	013	Pos Frac	DIFFUSION-1	0,127	00 to 99
38	05	—	012	Pos Int	DIFFUSION-2	0,99	00 to 99
39	01	—	004	Table	ATTACK	0,62	Size: 8 [Env Time Table 3 - #33]
39	04	—	003	Table	HOLD	0,62	Size: 8 [Env Time Table 3 - #33]
39	05	—	005	Table	RELEASE	0,62	Size: 8 [Env Time Table 3 - #33]
40	02	—	008	Word	PRE-TRIG TIME	0,530	0000 to 0530 msec
40	05	—	006	Signed Int	TRIG THRESH	-96,0	-96 to +00 dB
41	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	—	035	Table Ptr	DEST	0,10	Size: ? [Param Names]
41	03	—	036	Type: ?	MIN		(depends on Destination param)
41	05	—	038	Type: ?	MAX		(depends on Destination param)
42	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	—	029	Table Ptr	DEST	0,10	Size: ? [Param Names]
42	03	—	030	Type: ?	MIN		(depends on Destination param)
42	05	—	032	Type: ?	MAX		(depends on Destination param)

Algorithm 41 (index 18) : STEREO DELAY + DELAY
5 pages with 18 parameters

36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	MIX FX-1 DDL	0,127	00 to 99
37	05	—	003	Pos Frac	MIX FX-2 DDL	0,127	00 to 99
38	00	—	002	Pos Frac	D-1 REGEN	0,127	00 to 99
38	01	—	006	Word	D-1 TIME L	0,2000	0000 to 2000
38	02	—	008	Word	D-1 TIME R	0,2000	0000 to 2000
38	03	—	004	Pos Frac	D-2 REGEN	0,127	00 to 99
38	04	—	010	Word	D-2 TIME L	0,150	0000 to 0150
38	05	—	012	Word	D-2 TIME R	0,150	0000 to 0150
39	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
39	02	—	035	Table Ptr	DEST	0,7	Size: ? [Param Names]

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
39	03	—	036	Type: ?	MIN		(depends on Destination param)
39	05	—	038	Type: ?	MAX		(depends on Destination param)
40	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
40	02	—	029	Table Ptr	DEST	0,7	Size: ? [Param Names]
40	03	—	030	Type: ?	MIN		(depends on Destination param)
40	05	—	032	Type: ?	MAX		(depends on Destination param)

Algorithm 42 (index 19) :
9 pages with 29 parameters

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	MIX FX-1 DDL	0,127	00 to 99
37	05	—	002	Pos Frac	MIX FX-2 DDL	0,127	00 to 99
38	00	—	004	Word	DELAY-1 TIME	0,2184	0000 to 2184 msec
38	01	—	006	Pos Frac	LEVEL	0,127	00 to 99
38	02	—	007	Pos Frac	REGEN	0,127	00 to 99
38	05	—	008	Signed Frac	PAN	-128,127	-99 to +99
39	00	—	010	Word	DELAY-2 TIME	0,2184	0000 to 2184 msec
39	01	—	012	Pos Frac	LEVEL	0,127	00 to 99
39	02	—	013	Pos Frac	REGEN	0,127	00 to 99
39	05	—	014	Signed Frac	PAN	-128,127	-99 to +99
40	00	—	016	Word	DELAY-3 TIME	0,2184	0000 to 2184 msec
40	01	—	018	Pos Frac	LEVEL	0,127	00 to 99
40	02	—	019	Pos Frac	REGEN	0,127	00 to 99
40	05	—	020	Signed Frac	PAN	-128,127	-99 to +99
41	00	—	022	Word	DELAY-4 TIME	0,2184	0000 to 2184 msec
41	01	—	024	Pos Frac	LEVEL	0,127	00 to 99
41	02	—	025	Pos Frac	REGEN	0,127	00 to 99
41	05	—	026	Signed Frac	PAN	-128,127	-99 to +99
42	02	—	027	Pos Frac	REGEN DAMPING	0,127	00 to 99
43	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	—	035	Table Ptr	DEST	0,18	Size: ? [Param Names]
43	03	—	036	Type: ?	MIN		(depends on Destination param)
43	05	—	038	Type: ?	MAX		(depends on Destination param)
44	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
44	02	—	029	Table Ptr	DEST	0,18	Size: ? [Param Names]
44	03	—	030	Type: ?	MIN		(depends on Destination param)
44	05	—	032	Type: ?	MAX		(depends on Destination param)

Algorithm 43 (index 20) :
8 pages with 27 parameters

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,4	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 DELAYLFO	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 DELAYLFO	0,127	00 to 99
38	01	—	008	Pos Int	LFO RATE	0,99	00 to 99
38	02	—	009	Pos Int	WIDTH	0,99	00 to 99
38	05	—	010	Table	L/R LFO	0,1	Size: 12 [Phase Table - #39]
39	00	—	014	Table	DELAY INPUT R	0,1	Size: 4 [Off On Table - #38]
39	02	—	015	Pos Frac	OUTPUT LEVEL R	0,127	00 to 99
40	00	—	011	Signed Frac	DELAY - REGEN	-128,127	-99 to +99
40	01	—	004	Word	TIME L	0,845	0000 to 0845 msec
40	02	—	006	Word	TIME R	0,845	0000 to 0845 msec
40	04	—	012	Signed Frac	CROSS REGEN	-128,127	-99 to +99
40	05	—	013	Pos Frac	REGEN DAMPING	0,127	00 to 99
41	00	—	021	Signed Int	EQ TRIM	-24,0	-24 to +00 dB
41	01	—	016	Word	BASS FC	0,1000	0000 to 1000 Hz
41	02	—	018	Signed Int	LEVEL	-48,24	-48 to +24 dB
41	04	—	019	Pos Int	TREBLE FC	1,15	01KHz to 15KHz
41	05	—	020	Signed Int	LEVEL	-48,24	-48 to +24 dB
42	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	—	035	Table Ptr	DEST	0,16	Size: ? [Param Names]
42	03	—	036	Type: ?	MIN		(depends on Destination param)
42	05	—	038	Type: ?	MAX		(depends on Destination param)
43	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	—	029	Table Ptr	DEST	0,16	Size: ? [Param Names]
43	03	—	030	Type: ?	MIN		(depends on Destination param)
43	05	—	032	Type: ?	MAX		(depends on Destination param)

Pg	S1	Mi	Off	Type	Label	Internal	Displayed
Algorithm 44 (index 34) :					EIGHT VOICE CHORUS		
6 pages with 19 parameters							
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 CHORUS	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 CHORUS	0,127	00 to 99
38	01	—	003	Pos Int	CHORUS RATE	0,99	00 to 99
38	02	—	004	Pos Frac	WIDTH	0,127	00 to 99
38	04	—	006	Pos Frac	REGEN	0,127	00 to 99
38	05	—	005	Pos Frac	STEREO SPREAD	0,127	00 to 99
39	00	—	012	Pos Frac	DELAY REGEN	0,127	00 to 99
39	01	—	008	Word	TIME L	0,800	0000 to 0800 ms
39	02	—	010	Word	TIME R	0,800	0000 to 0800 ms
40	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
40	02	—	035	Table Ptr	DEST	0,8	Size: ? [Param Names]
40	03	—	036	Type: ?	MIN	(depends on Destination param)	
40	05	—	038	Type: ?	MAX	(depends on Destination param)	
41	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	—	029	Table Ptr	DEST	0,8	Size: ? [Param Names]
41	03	—	030	Type: ?	MIN	(depends on Destination param)	
41	05	—	032	Type: ?	MAX	(depends on Destination param)	
Algorithm 45 (index 14) :					CHORUS + REVERB 1		
7 pages with 24 parameters							
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 REVERB AFTER CHORUS	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	00	—	010	Pos Frac	CHORUS MIX	0,127	00 to 99
38	01	—	008	Pos Int	RATE	0,99	00 to 99
38	02	—	009	Pos Frac	WIDTH	0,127	00 to 99
38	05	—	011	Signed Frac	REGEN	-127,127	-99 to +99
39	01	—	003	Table	DECAY TIME	0,127	Size: 4 [Decay Time Table 2 - #22]
39	02	—	015	Pos Frac	EARLY REF LEV	0,127	00 to 99
39	04	—	005	Pos Frac	HF - DAMPING	0,127	00 to 99
39	05	—	014	Pos Frac	BANDWIDTH	0,127	00 to 99
40	01	—	004	Signed Frac	LF DECAY	-128,127	-99 to +99
40	02	—	016	Pos Frac	DIFFUSION	0,127	00 to 99
40	04	—	006	Pos Int	DETUNE - RATE	0,99	00 to 99
40	05	—	007	Pos Frac	DEPTH	0,127	00 to 99
41	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	—	035	Table Ptr	DEST	0,13	Size: ? [Param Names]
41	03	—	036	Type: ?	MIN	(depends on Destination param)	
41	05	—	038	Type: ?	MAX	(depends on Destination param)	
42	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	—	029	Table Ptr	DEST	0,13	Size: ? [Param Names]
42	03	—	030	Type: ?	MIN	(depends on Destination param)	
42	05	—	032	Type: ?	MAX	(depends on Destination param)	
Algorithm 46 (index 81) :					CHORUS + REVERB 2		
7 pages with 26 parameters							
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,10	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 REVERB AFTER CHORUS	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	00	—	005	Pos Frac	CHORUS MIX	0,127	00 to 99
38	01	—	003	Pos Int	RATE	0,99	00 to 99
38	02	—	004	Pos Frac	WIDTH	0,127	00 to 99
38	04	—	007	Signed Frac	STEREO SPREAD	-128,127	-99 to +99
38	05	—	006	Signed Frac	REGEN	-127,127	-99 to +99
39	01	—	008	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
39	02	—	010	Word	PRE-DLY TIME	0,300	0000 to 0300
39	04	—	009	Pos Frac	HF - DAMPING	0,127	00 to 99
39	05	—	012	Pos Frac	BANDWIDTH	0,127	00 to 99
40	01	—	016	Pos Int	DETUNE - RATE	0,99	00 to 99
40	02	—	017	Pos Frac	DEPTH	0,127	00 to 99
40	03	—	015	Pos Int	DEFINITION	0,99	00 to 99
40	05	00	013	Pos Frac	DIFFUSION 1	0,127	00 to 99

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
40	05	01	014	Pos Frac	DIFFUSION 2	0,127	00 to 99
41	00	---	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	---	035	Table Ptr	DEST	0,15	Size: ? [Param Names]
41	03	---	036	Type: ?	MIN	(depends on Destination param)	
41	05	---	038	Type: ?	MAX	(depends on Destination param)	
42	00	---	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	---	029	Table Ptr	DEST	0,15	Size: ? [Param Names]
42	03	---	030	Type: ?	MIN	(depends on Destination param)	
42	05	---	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 47 (index 83) :
10 pages with 34 parameters

DDL--CHORUS + REVRB 1

36	02	---	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	---	---	Table	VAR	0,9	Size: 18 [FX Variations]
38	01	---	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	---	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	---	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	---	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	---	005	Pos Frac	DRY	0,127	00 to 99
39	00	---	010	Pos Frac	DDL MIX	0,127	00 to 99
39	01	---	013	Pos Frac	LEVEL	0,127	00 to 99
39	02	---	014	Signed Frac	PAN	-127,127	-99 to +99
40	01	---	011	Signed Frac	DDL REGEN L	-127,127	-99 to +99
40	02	---	012	Pos Frac	DAMPING	0,127	00 to 99
40	04	---	006	Word	DELAY TIME L	0,1000	0000 to 1000 msec
40	05	---	008	Word	DELAY TIME R	0,1000	0000 to 1000 msec
41	00	---	016	Pos Frac	CHORUS MIX	0,127	00 to 99
41	01	---	015	Pos Frac	LEVEL	0,127	00 to 99
41	02	---	017	Signed Frac	WET PAN	-128,127	-99 to +99
41	05	---	018	Signed Frac	DRY PAN	-128,127	-99 to +99
42	00	---	023	Pos Int	CHORUS CENTER	0,127	000 to 127
42	01	---	020	Pos Int	RATE	0,127	000 to 127
42	02	---	022	Pos Int	WIDTH	0,127	000 to 127
42	04	---	021	Unsigned Int	LFO SPREAD	0,128	000 to 128
42	05	---	019	Signed Frac	REGEN	-127,127	-99 to +99
43	01	---	024	Table	REVERB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	---	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	---	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	---	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	---	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	---	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	---	035	Table Ptr	DEST	0,27	Size: ? [Param Names]
45	03	---	036	Type: ?	MIN	(depends on Destination param)	
45	05	---	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 48 (index 86) :
10 pages with 36 parameters

DDL--CHORUS + REVRB 2

36	02	---	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	---	---	Table	VAR	0,9	Size: 18 [FX Variations]
38	01	---	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	---	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	---	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	---	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	---	005	Pos Frac	DRY	0,127	00 to 99
39	00	---	010	Pos Frac	DDL MIX	0,127	00 to 99
39	01	---	013	Pos Frac	LEVEL	0,127	00 to 99
39	02	---	014	Signed Frac	PAN	-127,127	-99 to +99
40	01	---	011	Signed Frac	DDL REGEN L	-127,127	-99 to +99
40	02	---	012	Pos Frac	DAMPING	0,127	00 to 99
40	04	---	006	Word	DELAY TIME L	0,1000	0000 to 1000 msec
40	05	---	008	Word	DELAY TIME R	0,1000	0000 to 1000 msec
41	00	---	016	Pos Frac	CHORUS MIX	0,127	00 to 99
41	01	---	015	Pos Frac	LEVEL	0,127	00 to 99
41	02	---	017	Signed Frac	WET PAN	-128,127	-99 to +99
41	05	---	018	Signed Frac	DRY PAN	-128,127	-99 to +99
42	00	---	023	Pos Int	CHORUS CENTER	0,127	000 to 127
42	01	---	020	Pos Int	RATE	0,127	000 to 127

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
42	02	--	022	Pos Int	WIDTH	0,127	000 to 127
42	04	--	021	Unsigned Int	LFO SPREAD	0,128	000 to 128
42	05	--	019	Signed Frac	REGEN	-127,127	-99 to +99
43	01	--	024	Table	REVERB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,150	0000 to 0150 msec
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	02	00	031	Signed Frac	FRONT-TO-BACK .1	-128,127	-99 to +99
44	02	01	032	Signed Frac	FRONT-TO-BACK .2	-128,127	-99 to +99
44	02	02	033	Signed Frac	FRONT-TO-BACK .3	-128,127	-99 to +99
44	04	--	030	Pos Int	DEFINITION	0,99	00 to 99
44	05	--	029	Pos Frac	DIFFUSION	0,127	00 to 99
45	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,29	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 49 (index 84) :
10 pages with 35 parameters

EQ--CHORUS + REVERB

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,10	Size: 18 [FX Variations]
38	01	--	001	Pos Frac	SENDS A--B	0,127	00 to 99
38	02	--	003	Pos Frac	B--REVRB	0,127	00 to 99
38	03	--	002	Pos Frac	A--REVRB	0,127	00 to 99
38	04	--	004	Pos Frac	FX2--REVRB	0,127	00 to 99
38	05	--	005	Pos Frac	DRY	0,127	00 to 99
39	00	--	006	Pos Frac	INPUT	0,127	00 to 99
39	01	--	007	Pos Frac	OUTPUT	0,127	00 to 99
39	02	--	008	Signed Frac	PAN	-128,127	-99 to +99
39	03	--	012	Word	MID FC	0,15000	00000 to 15000
39	04	--	014	Table	BW	0,42	Size: 3 [Log BW Table - #27]
39	05	--	011	Signed Int	LEVEL	-99,48	-99 to +48 dB
40	02	--	009	Signed Int	BASS LEVEL	-99,48	-99 to +48 dB
40	05	--	010	Signed Int	TREBLE LEVEL	-99,48	-99 to +48 dB
41	00	--	016	Pos Frac	CHORUS MIX	0,127	00 to 99
41	01	--	015	Pos Frac	LEVEL	0,127	00 to 99
41	02	--	017	Signed Frac	WET PAN	-128,127	-99 to +99
41	05	--	018	Signed Frac	DRY PAN	-128,127	-99 to +99
42	00	--	023	Pos Int	CHORUS CENTER	0,127	000 to 127
42	01	--	020	Pos Int	RATE	0,127	000 to 127
42	02	--	022	Pos Int	WIDTH	0,127	000 to 127
42	04	--	021	Unsigned Int	LFO SPREAD	0,128	000 to 128
42	05	--	019	Signed Frac	REGEN	-127,127	-99 to +99
43	01	--	024	Table	REVERB DECAY TIME	0,127	Size: 4 [Decay Time Table 1 - #21]
43	02	--	026	Word	PRE-DLY TIME	0,300	0000 to 0300 msec
43	04	--	025	Pos Frac	HF - DAMPING	0,127	00 to 99
43	05	--	028	Pos Frac	BANDWIDTH	0,127	00 to 99
44	04	--	031	Pos Int	DEFINITION	0,99	00 to 99
44	05	00	029	Pos Frac	DIFFUSION .1	0,127	00 to 99
44	05	01	030	Pos Frac	DIFFUSION .2	0,127	00 to 99
45	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
45	02	--	035	Table Ptr	DEST	0,28	Size: ? [Param Names]
45	03	--	036	Type: ?	MIN	(depends on Destination param)	
45	05	--	038	Type: ?	MAX	(depends on Destination param)	

Algorithm 50 (index 29) :
7 pages with 27 parameters

EQ--CHORUS + EQ--DDL

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 CHORUS	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 CHORUS	0,127	00 to 99
38	00	--	005	Pos Frac	CHORUS CENTER	0,127	00 to 99
38	01	--	003	Pos Int	RATE	0,99	00 to 99
38	02	--	004	Pos Frac	WIDTH	0,127	00 to 99
38	05	--	006	Table	L/R LFO	0,1	Size: 12 [Phase Table - #39]
39	00	--	012	Signed Frac	DELAY - REGEN	-128,127	-99 to +99
39	01	--	008	Word	TIME L	0,1500	0000 to 1500 msec
39	02	--	010	Word	TIME R	0,1500	0000 to 1500 msec
39	03	--	018	Pos Frac	ECHO - LEVEL	0,127	00 to 99

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
39	04	--	014	Word	TIME L	0,1500	0000 to 1500 msec
39	05	--	016	Word	TIME R	0,1500	0000 to 1500 msec
40	00	--	025	Signed Int	EQ TRIM	-24,0	-24 to +00 dB
40	01	--	020	Word	BASS FC	0,1000	0000 to 1000 Hz
40	02	--	022	Signed Int	LEVEL	-48,24	-48 to +24 dB
40	04	--	023	Pos Int	TREBLE FC	1,15	01KHz to 15KHz
40	05	--	024	Signed Int	LEVEL	-48,24	-48 to +24 dB
41	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	--	035	Table Ptr	DEST	0,16	Size: ? [Param Names]
41	03	--	036	Type: ?	MIN	(depends on Destination param)	
41	05	--	038	Type: ?	MAX	(depends on Destination param)	
42	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	--	029	Table Ptr	DEST	0,16	Size: ? [Param Names]
42	03	--	030	Type: ?	MIN	(depends on Destination param)	
42	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 51 (index 15) : FLANGER + REVERB
7 pages with 25 parameters

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 REVERB AFTER FLANGE	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	00	--	011	Pos Frac	FLANGER CENTER	0,127	00 to 99
38	01	--	012	Pos Int	RATE	0,99	00 to 99
38	02	--	010	Pos Frac	WIDTH	0,127	00 to 99
38	04	--	013	Signed Frac	REGEN	-127,127	-99 to +99
38	05	--	014	Pos Frac	DEPTH	0,127	00 to 99
39	01	--	003	Table	DECAY TIME	0,127	Size: 4 [Decay Time Table 2 - #22]
39	02	--	009	Pos Frac	EARLY REF LEV	0,127	00 to 99
39	04	--	005	Pos Frac	HF - DAMPING	0,127	00 to 99
39	05	--	006	Pos Frac	BANDWIDTH	0,127	00 to 99
40	01	--	004	Signed Frac	LF DECAY	-128,127	-99 to +99
40	02	--	017	Pos Frac	DIFFUSION	0,127	00 to 99
40	04	--	007	Pos Int	DETUNE - RATE	0,99	00 to 99
40	05	--	008	Pos Frac	DEPTH	0,127	00 to 99
41	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	--	035	Table Ptr	DEST	0,14	Size: ? [Param Names]
41	03	--	036	Type: ?	MIN	(depends on Destination param)	
41	05	--	038	Type: ?	MAX	(depends on Destination param)	
42	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	--	029	Table Ptr	DEST	0,14	Size: ? [Param Names]
42	03	--	030	Type: ?	MIN	(depends on Destination param)	
42	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 52 (index 31) : EQ--FLANGER + DELAY
8 pages with 30 parameters

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 FLANGER	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 FLANGER	0,127	00 to 99
38	00	--	005	Pos Frac	FLANGE CENTER	0,127	00 to 99
38	01	--	003	Pos Int	RATE	0,99	00 to 99
38	02	--	004	Pos Frac	WIDTH	0,127	00 to 99
38	04	--	006	Signed Frac	REGEN	-127,127	-99 to +99
38	05	--	007	Signed Frac	NOTCH DEPTH	-128,127	-99 to +99
39	03	--	009	Pos Int	S/H RATE	0,100	000 to 100
39	05	--	008	Table	L/R LFO	0,1	Size: 12 [Phase Table - #39]
40	00	--	014	Signed Frac	DELAY - REGEN	-128,127	-99 to +99
40	01	--	010	Word	TIME L	0,1500	0000 to 1500 msec
40	02	--	012	Word	TIME R	0,1500	0000 to 1500 msec
40	03	--	020	Pos Frac	ECHO - LEVEL	0,127	00 to 99
40	04	--	016	Word	TIME L	0,1500	0000 to 1500 msec
40	05	--	018	Word	TIME R	0,1500	0000 to 1500 msec
41	00	--	027	Signed Int	EQ TRIM	-24,0	-24 to +00 dB
41	01	--	022	Word	BASS FC	0,1000	0000 to 1000 Hz
41	02	--	024	Signed Int	LEVEL	-48,24	-48 to +24 dB
41	04	--	025	Pos Int	TREBLE FC	1,15	01KHz to 15KHz
41	05	--	026	Signed Int	LEVEL	-48,24	-48 to +24 dB
42	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
42	02	--	035	Table Ptr	DEST	0,19	Size: ? [Param Names]
42	03	--	036	Type: ?	MIN	(depends on Destination param)	
42	05	--	038	Type: ?	MAX	(depends on Destination param)	
43	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	--	029	Table Ptr	DEST	0,19	Size: ? [Param Names]
43	03	--	030	Type: ?	MIN	(depends on Destination param)	
43	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 53 (index 16) : PHASER + REVERB
7 pages with 25 parameters

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 REVERB AFTER PHASE	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	00	--	010	Pos Frac	PHASER CENTER	0,127	00 to 99
38	01	--	011	Pos Int	RATE	0,99	00 to 99
38	02	--	012	Pos Frac	WIDTH	0,127	00 to 99
38	04	--	013	Signed Frac	REGEN	-127,127	-99 to +99
38	05	--	014	Pos Frac	DEPTH	0,127	00 to 99
39	01	--	003	Table	DECAY TIME	0,127	Size: 4 [Decay Time Table 2 - #22]
39	02	--	009	Pos Frac	EARLY REF LEV	0,127	00 to 99
39	04	--	005	Pos Frac	HF - DAMPING	0,127	00 to 99
39	05	--	006	Pos Frac	BANDWIDTH	0,127	00 to 99
40	00	--	004	Signed Frac	LF DECAY	-128,127	-99 to +99
40	02	--	017	Pos Frac	DIFFUSION	0,127	00 to 99
40	04	--	007	Pos Int	DETUNE - RATE	0,99	00 to 99
40	05	--	008	Pos Frac	DEPTH	0,127	00 to 99
41	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	--	035	Table Ptr	DEST	0,14	Size: ? [Param Names]
41	03	--	036	Type: ?	MIN	(depends on Destination param)	
41	05	--	038	Type: ?	MAX	(depends on Destination param)	
42	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	--	029	Table Ptr	DEST	0,14	Size: ? [Param Names]
42	03	--	030	Type: ?	MIN	(depends on Destination param)	
42	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 54 (index 33) : PHASER + DELAY
7 pages with 22 parameters

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 PHASER	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 PHASER	0,127	00 to 99
38	00	--	005	Signed Frac	PHASER CENTER	-128,127	-99 to +99
38	01	--	003	Pos Int	RATE	0,99	00 to 99
38	02	--	004	Pos Frac	WIDTH	0,127	00 to 99
38	04	--	006	Signed Frac	REGEN	-127,127	-99 to +99
38	05	--	007	Signed Frac	NOTCH DEPTH	-128,127	-99 to +99
39	03	--	009	Pos Int	S/H RATE	0,100	000 to 100
39	05	--	008	Table	L/R LFO	0,1	Size: 12 [Phase Table - #39]
40	00	--	014	Signed Frac	DELAY REGEN	-128,127	-99 to +99
40	01	--	010	Word	TIME L	0,1600	0000 to 1600 msec
40	02	--	012	Word	TIME R	0,1600	0000 to 1600 msec
41	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	--	035	Table Ptr	DEST	0,11	Size: ? [Param Names]
41	03	--	036	Type: ?	MIN	(depends on Destination param)	
41	05	--	038	Type: ?	MAX	(depends on Destination param)	
42	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	--	029	Table Ptr	DEST	0,11	Size: ? [Param Names]
42	03	--	030	Type: ?	MIN	(depends on Destination param)	
42	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 55 (index 32) : EQ--TREMOLLO + DELAY
7 pages with 27 parameters

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 POST-DDL	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 DDL	0,127	00 to 99
38	01	--	003	Unsigned Int	TREMOLLO RATE	0,130	000 to 130

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
38	02	--	004	Pos Frac	DEPTH	0,127	00 to 99
38	03	--	006	Pos Int	S/H RATE	0,100	000 to 100
38	05	--	005	Table	L/R LFO	0,1	Size: 12 [Phase Table - #39]
39	00	--	012	Signed Frac	DELAY - REGEN	-128,127	-99 to +99
39	01	--	008	Word	TIME L	0,1500	0000 to 1500 msec
39	02	--	010	Word	TIME R	0,1500	0000 to 1500 msec
39	03	--	018	Pos Frac	ECHO - LEVEL	0,127	00 to 99
39	04	--	014	Word	TIME L	0,1500	0000 to 1500 msec
39	05	--	016	Word	TIME R	0,1500	0000 to 1500 msec
40	00	--	025	Signed Int	EQ TRIM	-24,0	-24 to +0 dB
40	01	--	020	Word	BASS FC	0,1000	0000 to 1000 Hz
40	02	--	022	Signed Int	LEVEL	-48,24	-48 to +24 dB
40	04	--	023	Pos Int	TREBLE FC	1,15	01KHz to 15KHz
40	05	--	024	Signed Int	LEVEL	-48,24	-48 to +24 dB
41	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	--	035	Table Ptr	DEST	0,16	Size: ? [Param Names]
41	03	--	036	Type: ?	MIN	(depends on Destination param)	
41	05	--	038	Type: ?	MAX	(depends on Destination param)	
42	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	--	029	Table Ptr	DEST	0,16	Size: ? [Param Names]
42	03	--	030	Type: ?	MIN	(depends on Destination param)	
42	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 56 (index 30) :
7 pages with 27 parameters

EQ--VIBRATO + DELAY

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 VIBRATO	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 VIBRATO	0,127	00 to 99
38	01	--	003	Pos Int	VIBRATO RATE	0,99	00 to 99
38	02	--	004	Pos Frac	WIDTH	0,127	00 to 99
38	03	--	006	Pos Int	S/H RATE	0,100	000 to 100
38	05	--	005	Table	L/R LFO	0,1	Size: 12 [Phase Table - #39]
39	00	--	012	Signed Frac	DELAY - REGEN	-128,127	-99 to +99
39	01	--	008	Word	TIME L	0,1500	0000 to 1500 msec
39	02	--	010	Word	TIME R	0,1500	0000 to 1500 msec
39	03	--	018	Pos Frac	ECHO - LEVEL	0,127	00 to 99
39	04	--	014	Word	TIME L	0,1500	0000 to 1500 msec
39	05	--	016	Word	TIME R	0,1500	0000 to 1500 msec
40	00	--	025	Signed Int	EQ TRIM	-24,0	-24 to +0 dB
40	01	--	020	Word	BASS FC	0,1000	0000 to 1000 Hz
40	02	--	022	Signed Int	LEVEL	-48,24	-48 to +24 dB
40	04	--	023	Pos Int	TREBLE FC	1,15	01KHz to 15KHz
40	05	--	024	Signed Int	LEVEL	-48,24	-48 to +24 dB
41	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	--	035	Table Ptr	DEST	0,16	Size: ? [Param Names]
41	03	--	036	Type: ?	MIN	(depends on Destination param)	
41	05	--	038	Type: ?	MAX	(depends on Destination param)	
42	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	--	029	Table Ptr	DEST	0,16	Size: ? [Param Names]
42	03	--	030	Type: ?	MIN	(depends on Destination param)	
42	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 57 (index 35) :
7 pages with 23 parameters

PITCH SHIFTER

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 PITCHSH	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 PITCHSH	0,127	00 to 99
38	00	--	003	Signed Int	VOICE-1 SEMI	-12,12	-12 to +12
38	01	--	004	Signed Frac	FINE	-127,127	-99 to +99
38	02	--	005	Pos Frac	LEVEL	0,127	00 to 99
38	05	--	006	Signed Frac	PAN	-128,127	-99 to +99
39	00	--	007	Signed Int	VOICE-2 SEMI	-12,12	-12 to +12
39	01	--	008	Signed Frac	FINE	-127,127	-99 to +99
39	02	--	009	Pos Frac	LEVEL	0,127	00 to 99
39	05	--	010	Signed Frac	PAN	-128,127	-99 to +99
40	02	--	011	Table	QUALITY	0,1	Size: 12 [Quality Table - #40]
40	04	--	012	Pos Int	LFO - RATE	0,99	00 to 99

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
40	05	—	013	Pos Int	WIDTH	0,99	00 to 99
41	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	—	035	Table Ptr	DEST	0,12	Size: ? [Param Names]
41	03	—	036	Type: ?	MIN		(depends on Destination param)
41	05	—	038	Type: ?	MAX		(depends on Destination param)
42	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	—	029	Table Ptr	DEST	0,12	Size: ? [Param Names]
42	03	—	030	Type: ?	MIN		(depends on Destination param)
42	05	—	032	Type: ?	MAX		(depends on Destination param)

Algorithm 58 (index 37) : FAST PITCH SHIFTER
6 pages with 20 parameters

36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 PITCHSH	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 PITCHSH	0,127	00 to 99
38	00	—	004	Signed Frac	VC-1 FINE	-127,127	-99 to +99
38	01	—	005	Pos Frac	LEVEL	0,127	00 to 99
38	02	—	006	Signed Frac	PAN	-128,127	-99 to +99
38	03	—	008	Signed Frac	VC-2 FINE	-127,127	-99 to +99
38	04	—	009	Pos Frac	LEVEL	0,127	00 to 99
38	05	—	010	Signed Frac	PAN	-128,127	-99 to +99
39	01	—	011	Pos Int	LFO RATE	0,99	00 to 99
39	02	—	012	Pos Int	WIDTH	0,99	00 to 99
40	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
40	02	—	035	Table Ptr	DEST	0,9	Size: ? [Param Names]
40	03	—	036	Type: ?	MIN		(depends on Destination param)
40	05	—	038	Type: ?	MAX		(depends on Destination param)
41	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	—	029	Table Ptr	DEST	0,9	Size: ? [Param Names]
41	03	—	030	Type: ?	MIN		(depends on Destination param)
41	05	—	032	Type: ?	MAX		(depends on Destination param)

Algorithm 59 (index 36) : PITCH SHIFTER + DELAY
7 pages with 25 parameters

36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,8	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 PITCHDDL	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 PITCHDDL	0,127	00 to 99
38	00	—	003	Signed Int	VOICE-1 SEMI	-12,12	-12 to +12
38	01	—	004	Signed Frac	FINE	-127,127	-99 to +99
38	02	—	005	Pos Frac	LEVEL	0,127	00 to 99
38	05	—	006	Signed Frac	PAN	-128,127	-99 to +99
39	00	—	007	Signed Int	VOICE-2 SEMI	-12,12	-12 to +12
39	01	—	008	Signed Frac	FINE	-127,127	-99 to +99
39	02	—	009	Pos Frac	LEVEL	0,127	00 to 99
39	05	—	010	Signed Frac	PAN	-128,127	-99 to +99
40	00	—	017	Signed Int	DELAY REGEN	-99,99	-99 to +99
40	01	—	012	Word	TIME L	0,1500	0000 to 1500 msec
40	02	—	014	Word	TIME R	0,1500	0000 to 1500 msec
40	04	—	016	Pos Frac	MIX	0,127	00 to 99
40	05	—	011	Pos Frac	DRY LEVEL	0,127	00 to 99
41	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	—	035	Table Ptr	DEST	0,14	Size: ? [Param Names]
41	03	—	036	Type: ?	MIN		(depends on Destination param)
41	05	—	038	Type: ?	MAX		(depends on Destination param)
42	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	—	029	Table Ptr	DEST	0,14	Size: ? [Param Names]
42	03	—	030	Type: ?	MIN		(depends on Destination param)
42	05	—	032	Type: ?	MAX		(depends on Destination param)

Algorithm 60 (index 42) : ROTARY SPEAKER + REV
7 pages with 23 parameters

36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,4	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 REVERB AFTER ROTO	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	01	—	010	Pos Frac	DIST INPUT	0,127	00 to 99

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
38	02	--	011	Pos Frac	DIST OUTPUT	0,127	00 to 99
38	04	--	012	Pos Frac	FILTER	0,127	00 to 99
38	05	--	013	Pos Frac	SPKR GAIN	0,127	00 to 99
39	00	--	007	Pos Frac	ROTOR SLOW	0,127	00 to 99
39	01	--	006	Pos Frac	FAST	0,127	00 to 99
39	02	--	008	Pos Frac	INERTIA	0,127	00 to 99
39	05	--	009	Table	SPEED	0,1	Size: 4 [Speed Table - #37]
40	01	--	003	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 2 - #22]
40	02	--	004	Pos Frac	HF - DAMPING	0,127	00 to 99
40	05	--	005	Pos Frac	DIFFUSION	0,127	00 to 99
41	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	--	035	Table Ptr	DEST	0,12	Size: ? [Param Names]
41	03	--	036	Type: ?	MIN	(depends on Destination param)	
41	05	--	038	Type: ?	MAX	(depends on Destination param)	
42	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	--	029	Table Ptr	DEST	0,12	Size: ? [Param Names]
42	03	--	030	Type: ?	MIN	(depends on Destination param)	
42	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 61 (index 27) :
5 pages with 13 parameters

SPEAKER CABINET

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 SPKR	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 SPKR	0,127	00 to 99
38	02	--	003	Signed Int	OUTPUT GAIN	-48,24	-48 to +24 dB
39	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
39	02	--	035	Table Ptr	DEST	0,2	Size: ? [Param Names]
39	03	--	036	Type: ?	MIN	(depends on Destination param)	
39	05	--	038	Type: ?	MAX	(depends on Destination param)	
40	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
40	02	--	029	Table Ptr	DEST	0,2	Size: ? [Param Names]
40	03	--	030	Type: ?	MIN	(depends on Destination param)	
40	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 62 (index 28) :
6 pages with 23 parameters

TUNABLE SPEAKER

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 SPKR	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 SPKR	0,127	00 to 99
38	00	--	004	Word	MID-1 FC	0,9999	0000 to 9999 Hz
38	01	--	007	Pos Int	Q	1,18	01 to 18
38	02	--	006	Signed Int	LEVEL	-48,24	-48 to +24 dB
38	03	--	008	Word	MID-2 FC	0,9999	0000 to 9999 Hz
38	04	--	011	Pos Int	Q	1,18	01 to 18
38	05	--	010	Signed Int	LEVEL	-48,24	-48 to +24 dB
39	00	--	012	Word	MID-3 FC	0,9999	0000 to 9999 Hz
39	01	--	015	Pos Int	Q	1,18	01 to 18
39	02	--	014	Signed Int	LEVEL	-48,24	-48 to +24 dB
39	04	--	016	Signed Int	INPUT LEVEL	-24,0	-24 to +00 dB
39	05	--	017	Signed Int	OUTPUT LEVEL	-48,24	-48 to +24 dB
40	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
40	02	--	035	Table Ptr	DEST	0,12	Size: ? [Param Names]
40	03	--	036	Type: ?	MIN	(depends on Destination param)	
40	05	--	038	Type: ?	MAX	(depends on Destination param)	
41	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	--	029	Table Ptr	DEST	0,12	Size: ? [Param Names]
41	03	--	030	Type: ?	MIN	(depends on Destination param)	
41	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 63 (index 22) :
8 pages with 31 parameters

GUITAR AMP 1

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 GUITAMP	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 GUITAMP	0,127	00 to 99
38	01	--	003	Signed Int	PREAMP GAIN	-48,48	-48 to +48 dB

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
38	02	—	004	Pos Frac	MAIN LEVEL	0,127	00 to 99
38	05	—	005	Pos Frac	TUBE BIAS	0,127	00 to 99
39	01	—	006	Signed Int	PREAMP EQ TRIM	-24,0	-24 to +00 dB
39	02	—	007	Table	HIGH FC	0,31	Size: 4 [Hi Fc Table - #30]
39	03	—	008	Word	MID FC	0,9999	0000 to 9999 Hz
39	04	—	011	Pos Int	Q	1,18	01 to 18
39	05	—	010	Signed Int	LEVEL	-48,24	-48 to +24 dB
40	00	—	012	Signed Int	GATE - OFF	-96,0	-96 to +00 dB
40	01	—	013	Signed Int	ON	-96,0	-96 to +00 dB
40	02	—	014	Table	RELEASE	0,58	Size: 8 [Env Time Table 2 - #29]
40	04	—	015	Table	HIGH FC	0,31	Size: 4 [Hi Fc Table - #30]
40	05	—	024	Table	LOW FC	0,9	Size: 4 [Lo Fc Table 2 - #32]
41	00	—	016	Word	MAIN EQ MID-1 FC	0,9999	0000 to 9999 Hz
41	01	—	019	Pos Int	Q	1,18	01 to 18
41	02	—	018	Signed Int	LEVEL	-48,24	-48 to +24 dB
41	03	—	020	Word	MID-2 FC	0,9999	0000 to 9999 Hz
41	04	—	023	Pos Int	Q	1,18	01 to 18
41	05	—	022	Signed Int	LEVEL	-48,24	-48 to +24 dB
42	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	—	035	Table Ptr	DEST	0,20	Size: ? [Param Names]
42	03	—	036	Type: ?	MIN	(depends on Destination param)	
42	05	—	038	Type: ?	MAX	(depends on Destination param)	
43	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	—	029	Table Ptr	DEST	0,20	Size: ? [Param Names]
43	03	—	030	Type: ?	MIN	(depends on Destination param)	
43	05	—	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 64 (index 23) :
8 pages with 31 parameters

GUITAR AMP 2

36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 GUITAMP	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 GUITAMP	0,127	00 to 99
38	01	—	003	Signed Int	PREAMP GAIN	-48,48	-48 to +48 dB
38	02	—	004	Pos Frac	MAIN LEVEL	0,127	00 to 99
38	05	—	005	Pos Frac	TUBE BIAS	0,127	00 to 99
39	01	—	006	Signed Int	PREAMP EQ TRIM	-24,0	-24 to +00 dB
39	02	—	007	Table	HIGH FC	0,31	Size: 4 [Hi Fc Table - #30]
39	03	—	008	Word	MID FC	0,9999	0000 to 9999 Hz
39	04	—	011	Pos Int	Q	1,18	01 to 18
39	05	—	010	Signed Int	LEVEL	-48,24	-48 to +24 dB
40	00	—	012	Signed Int	GATE - OFF	-96,0	-96 to +00 dB
40	01	—	013	Signed Int	ON	-96,0	-96 to +00 dB
40	02	—	014	Table	RELEASE	0,58	Size: 8 [Env Time Table 2 - #29]
40	04	—	015	Table	HIGH FC	0,31	Size: 4 [Hi Fc Table - #30]
40	05	—	024	Table	LOW FC	0,9	Size: 4 [Lo Fc Table 2 - #32]
41	00	—	016	Word	MAIN EQ MID-1 FC	0,9999	0000 to 9999 Hz
41	01	—	019	Pos Int	Q	1,18	01 to 18
41	02	—	018	Signed Int	LEVEL	-48,24	-48 to +24 dB
41	03	—	020	Word	MID-2 FC	0,9999	0000 to 9999 Hz
41	04	—	023	Pos Int	Q	1,18	01 to 18
41	05	—	022	Signed Int	LEVEL	-48,24	-48 to +24 dB
42	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	—	035	Table Ptr	DEST	0,20	Size: ? [Param Names]
42	03	—	036	Type: ?	MIN	(depends on Destination param)	
42	05	—	038	Type: ?	MAX	(depends on Destination param)	
43	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	—	029	Table Ptr	DEST	0,20	Size: ? [Param Names]
43	03	—	030	Type: ?	MIN	(depends on Destination param)	
43	05	—	032	Type: ?	MAX	(depends on Destination param)	

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
Algorithm 65 (index 24) :					GUITAR AMP 3		
8 pages with 31 parameters							
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,4	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 GUITAMP	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 GUITAMP	0,127	00 to 99
38	01	—	003	Signed Int	PREAMP GAIN	-48,48	-48 to +48 dB
38	02	—	004	Pos Frac	MAIN LEVEL	0,127	00 to 99
38	04	—	010	Table	EXPANDER - RATIO	0,34	Size: 8 [Exp Ratio Table - #35]
38	05	—	011	Signed Int	THRESH	-96,0	-96 to +00 dB
39	01	—	005	Signed Int	PREAMP EQ TRIM	-24,0	-24 to +00 dB
39	03	—	006	Word	MID FC	0,9999	0000 to 9999 Hz
39	04	—	009	Pos Int	Q	1,18	01 to 18
39	05	—	008	Signed Int	LEVEL	-48,24	-48 to +24 dB
40	00	—	012	Signed Int	GATE - OFF	-96,0	-96 to +00 dB
40	01	—	013	Signed Int	QN	-96,0	-96 to +00 dB
40	02	—	014	Table	RELEASE	0,58	Size: 8 [Env Time Table 2 - #29]
40	04	—	015	Table	HIGH FC	0,31	Size: 4 [Hi Fc Table - #30]
40	05	—	024	Table	LOW FC	0,9	Size: 4 [Lo Fc Table 2 - #32]
41	00	—	016	Word	MAIN EQ MID-1 FC	0,9999	0000 to 9999 Hz
41	01	—	019	Pos Int	Q	1,18	1 to 18
41	02	—	018	Signed Int	LEVEL	-48,24	-48 to +24 dB
41	03	—	020	Word	MID-2 FC	0,9999	0000 to 9999 Hz
41	04	—	023	Pos Int	Q	1,18	01 to 18
41	05	—	022	Signed Int	LEVEL	-48,24	-48 to +24 dB
42	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	—	035	Table Ptr	DEST	0,20	Size: ? [Param Names]
42	03	—	036	Type: ?	MIN	(depends on Destination param)	
42	05	—	038	Type: ?	MAX	(depends on Destination param)	
43	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	—	029	Table Ptr	DEST	0,20	Size: ? [Param Names]
43	03	—	030	Type: ?	MIN	(depends on Destination param)	
43	05	—	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 66 (index 21) :
8 pages with 24 parameters

Algorithm 66 (index 21) :					VCF--DISTORTION--VCF		
8 pages with 24 parameters							
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 VCFDIST	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 VCFDIST	0,127	00 to 99
38	01	—	003	Pos Frac	DIST LEVEL - IN	0,127	00 to 99
38	02	—	004	Pos Frac	OUT	0,127	00 to 99
38	03	—	013	Table	BYPASS	0,1	Size: 4 [Off On Table - #38]
38	05	—	014	Word	PRE-EQ HIGH FC	0,1000	0000 to 1000 Hz
39	03	—	005	Pos Int	PRE-DIST VCF FC	1,99	01 to 99
39	04	—	006	Pos Int	Q	1,25	01 to 25
39	05	—	007	Signed Frac	ENV AMT	-128,127	-99 to +99
40	03	—	008	Pos Int	POST-DIST VCF FC	1,99	01 to 99
40	04	—	009	Pos Int	Q	1,25	01 to 25
40	05	—	010	Signed Frac	ENV AMT	-128,127	-99 to +99
41	01	—	011	Table	ATTACK	0,58	Size: 8 [Env Time Table 1 - #28]
41	02	—	012	Table	RELEASE	0,58	Size: 8 [Env Time Table 2 - #29]
42	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	—	035	Table Ptr	DEST	0,13	Size: ? [Param Names]
42	03	—	036	Type: ?	MIN	(depends on Destination param)	
42	05	—	038	Type: ?	MAX	(depends on Destination param)	
43	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	—	029	Table Ptr	DEST	0,13	Size: ? [Param Names]
43	03	—	030	Type: ?	MIN	(depends on Destination param)	
43	05	—	032	Type: ?	MAX	(depends on Destination param)	

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
Algorithm 67 (index 26) :						WAH--DISTORTION + REV	
6 pages with 20 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 REVERB AFTER DIST	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	01	--	005	Pos Frac	DIST INPUT	0,127	00 to 99
38	02	--	006	Pos Frac	DIST OUTPUT	0,127	00 to 99
38	04	--	007	Pos Frac	WAH - CENTER	0,127	00 to 99
38	05	--	008	Signed Frac	RANGE	-127,127	-99 to +99
39	01	--	003	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 2 - #22]
39	02	--	004	Pos Frac	HF DAMPING	0,127	00 to 99
39	03	--	010	Signed Frac	FEEDBACK	-127,127	-99 to +99
39	05	--	009	Pos Frac	COMPRESSOR THRESH	0,127	00 to 99
40	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
40	02	--	035	Table Ptr	DEST	0,9	Size: ? [Param Names]
40	03	--	036	Type: ?	MIN	(depends on Destination param)	
40	05	--	038	Type: ?	MAX	(depends on Destination param)	
41	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	--	029	Table Ptr	DEST	0,9	Size: ? [Param Names]
41	03	--	030	Type: ?	MIN	(depends on Destination param)	
41	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 68 (index 25) :						FLNG--CMP--DIST + REV	
7 pages with 21 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 REVERB AFETER DIST	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 REVERB	0,127	00 to 99
38	02	--	009	Pos Frac	COMPRESSOR THRESH	0,127	00 to 99
38	05	--	010	Pos Int	FLANGE RATE	0,99	00 to 99
39	00	--	005	Pos Frac	DIST INPUT	0,127	00 to 99
39	02	--	006	Pos Frac	DIST OUTPUT	0,127	00 to 99
39	04	--	007	Pos Frac	FILTER - LOW FC	0,127	00 to 99
39	05	--	008	Pos Frac	HIGH FC	0,127	00 to 99
40	01	--	003	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 2 - #22]
40	02	--	004	Pos Frac	HF DAMPING	0,127	00 to 99
40	05	--	011	Signed Frac	FEEDBACK	-127,127	-99 to +99
41	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	--	035	Table Ptr	DEST	0,10	Size: ? [Param Names]
41	03	--	036	Type: ?	MIN	(depends on Destination param)	
41	05	--	038	Type: ?	MAX	(depends on Destination param)	
42	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	--	029	Table Ptr	DEST	0,10	Size: ? [Param Names]
42	03	--	030	Type: ?	MIN	(depends on Destination param)	
42	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 69 (index 17) :						DISTORT + CHORUS--REV	
8 pages with 27 parameters							
36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	--	001	Pos Frac	FX-1 DIST INTO CHORUS	0,127	00 to 99
37	05	--	002	Pos Frac	FX-2 CHORUS INTO REVERB	0,127	00 to 99
38	00	--	007	Pos Frac	DIST MIX	0,127	00 to 99
38	01	--	003	Pos Frac	INPUT	0,127	00 to 99
38	02	--	004	Pos Frac	OUTPUT	0,127	00 to 99
38	04	--	005	Pos Frac	FILTER - FC	0,127	00 to 99
38	05	--	006	Pos Int	Q	1,25	01 to 25
39	00	--	017	Pos Frac	CHORUS MIX	0,127	00 to 99
39	01	--	015	Pos Int	RATE	0,99	00 to 99
39	02	--	016	Pos Frac	WIDTH	0,127	00 to 99
40	01	--	008	Table	REVB DECAY TIME	0,127	Size: 4 [Decay Time Table 2 - #22]
40	02	--	014	Pos Frac	EARLY REF LEV	0,127	00 to 99
40	04	--	010	Pos Frac	HF - DAMPING	0,127	00 to 99
40	05	--	011	Pos Frac	BANDWIDTH	0,127	00 to 99
41	02	--	009	Signed Frac	LF DECAY	-128,127	-99 to +99
41	04	--	012	Pos Int	DETUNE - RATE	0,99	00 to 99
41	05	--	013	Pos Frac	DEPTH	0,127	00 to 99

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
42	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	--	035	Table Ptr	DEST	0,16	Size: ? [Param Names]
42	03	--	036	Type: ?	MIN	(depends on Destination param)	
42	05	--	038	Type: ?	MAX	(depends on Destination param)	
43	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
43	02	--	029	Table Ptr	DEST	0,16	Size: ? [Param Names]
43	03	--	030	Type: ?	MIN	(depends on Destination param)	
43	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 70 (index 41) : PARAMETRIC EQ
6 pages with 21 parameters

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,6	Size: 18 [FX Variations]
38	00	--	016	Signed Int	EQ TRIM	-24,0	-24 to +00 dB
38	01	--	002	Word	BASS FC	0,1000	0000 to 1000 Hz
38	02	--	004	Signed Int	LEVEL	-48,24	-48 to +24 dB
38	04	--	014	Pos Int	TREBLE FC	1,15	01 to 15 KHz
38	05	--	015	Signed Int	LEVEL	-48,24	-48 to +24 dB
39	00	--	006	Word	MID-1 FC	0,9999	0000 to 9999 Hz
39	01	--	009	Pos Int	Q	1,18	01 to 18
39	02	--	008	Signed Int	LEVEL	-48,24	-48 to +24 dB
39	03	--	010	Word	MID-1 FC	0,9999	0000 to 9999 Hz
39	04	--	013	Pos Int	Q	1,18	01 to 18
39	05	--	012	Signed Int	LEVEL	-48,24	-48 to +24 dB
40	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
40	02	--	035	Table Ptr	DEST	0,10	Size: ? [Param Names]
40	03	--	036	Type: ?	MIN	(depends on Destination param)	
40	05	--	038	Type: ?	MAX	(depends on Destination param)	
41	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	--	029	Table Ptr	DEST	0,10	Size: ? [Param Names]
41	03	--	030	Type: ?	MIN	(depends on Destination param)	
41	05	--	032	Type: ?	MAX	(depends on Destination param)	

Algorithm 71 (index 38) : EQ--COMPRESSOR
7 pages with 23 parameters

36	02	--	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	--	---	Table	VAR	0,3	Size: 18 [FX Variations]
38	01	--	002	Table	COMPRESSOR RATIO	0,34	Size: 8 [Comp Ratio Table - #36]
38	02	--	003	Signed Int	THRESH	-96,0	-96 to +00 dB
38	04	--	004	Table	ATTACK	0,28	Size: 8 [Env Time Table 1 - #28]
38	05	--	005	Table	RELEASE	0,53	Size: 8 [Env Time Table 2 - #29]
39	00	--	006	Signed Int	GATE - OFF	-96,0	-96 to +00 dB
39	01	--	007	Signed Int	ON	-96,0	-96 to +00 dB
39	02	--	008	Table	RELEASE	0,58	Size: 8 [Env Time Table 2 - #29]
39	05	--	001	Signed Int	COMPRESSOR - OUTPUT GAIN	-48,48	-48 to +48 dB
40	00	--	015	Signed Int	EQ TRIM	-24,0	-24 to +00 dB
40	01	--	010	Word	BASS FC	0,1000	0000 to 1000 Hz
40	02	--	012	Signed Int	LEVEL	-48,24	-48 to +24 dB
40	04	--	013	Pos Int	TREBLE FC	1,15	01KHz to 15KHz
40	05	--	014	Signed Int	LEVEL	-48,24	-48 to +24 dB
41	00	--	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
41	02	--	035	Table Ptr	DEST	0,12	Size: ? [Param Names]
41	03	--	036	Type: ?	MIN	(depends on Destination param)	
41	05	--	038	Type: ?	MAX	(depends on Destination param)	
42	00	--	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
42	02	--	029	Table Ptr	DEST	0,12	Size: ? [Param Names]
42	03	--	030	Type: ?	MIN	(depends on Destination param)	
42	05	--	032	Type: ?	MAX	(depends on Destination param)	

Pg	Sl	Mi	Off	Type	Label	Internal	Displayed
Algorithm 72 (index 39) :					RUMBLE FILTER		
5 pages with 15 parameters							
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,4	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 FILTER	0,127	00 to 99
37	05	—	002	Pos Frac	FX-2 FILTER	0,127	00 to 99
38	01	—	003	Table	HIGH FC	0,43	Size: 4 [Hi Fc Table - #30]
38	02	—	004	Table	LOW FC	0,29	Size: 4 [Lo Fc Table 1 - #31]
38	05	—	005	Signed Int	GAIN	-48,48	-48 to +48 dB
39	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
39	02	—	035	Table Ptr	DEST	0,4	Size: ? [Param Names]
39	03	—	036	Type: ?	MIN	(depends on Destination param)	
39	05	—	038	Type: ?	MAX	(depends on Destination param)	
40	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
40	02	—	029	Table Ptr	DEST	0,4	Size: ? [Param Names]
40	03	—	030	Type: ?	MIN	(depends on Destination param)	
40	05	—	032	Type: ?	MAX	(depends on Destination param)	
Algorithm 73 (index 40) :					VAN DER POL FILTER		
5 pages with 14 parameters							
36	02	—	000	Unsigned Int	EFFECT	0,73	[Algorithms]
36	05	—	---	Table	VAR	0,3	Size: 18 [FX Variations]
37	02	—	001	Pos Frac	FX-1 FILTER	0,127	00 to 99
38	01	—	002	Table	HIGH FC	0,43	Size: 4 [Hi Fc Table - #30]
38	02	—	003	Table	LOW FC	0,29	Size: 4 [Lo Fc Table 1 - #31]
38	05	—	004	Signed Int	GAIN	-48,48	-48 to +48 dB
39	00	—	034	Table	MOD-1 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
39	02	—	035	Table Ptr	DEST	0,3	Size: ? [Param Names]
39	03	—	036	Type: ?	MIN	(depends on Destination param)	
39	05	—	038	Type: ?	MAX	(depends on Destination param)	
40	00	—	028	Table	MOD-2 SRC	0,13	Size: 5 [FX Mod Src Table - #20]
40	02	—	029	Table Ptr	DEST	0,3	Size: ? [Param Names]
40	03	—	030	Type: ?	MIN	(depends on Destination param)	
40	05	—	032	Type: ?	MAX	(depends on Destination param)	

Text tables used by Table type effect parameters

Some of the Table type effect parameters refer to table definitions by number, as listed here:

- 20 FX Mod Src Table
- 21 Decay Time Table 1
- 22 Decay Time Table 2
- 23 Decay Time Table 3
- 24 Decay Time Table 4
- 25 Log Freq Table
- 26 Log BW Table
- 27 DDL Time Table
- 28 Env Time Table 1
- 29 Env Time Table 2
- 30 Hi Fc Table
- 31 Lo Fc Table 1
- 32 Lo Fc Table 2
- 33 Env Time Table 3
- 34 Env Time Table 4
- 35 Exp Ratio Table
- 36 Comp Ratio Table
- 37 Speed Table
- 38 Off On Table
- 39 Phase Table
- 40 Quality Table

#20 FX Mod Src Table

0	'WHEEL'	45	'1.25'
1	'PBEND'	46	'1.27'
2	'PEDAL'	47	'1.30'
3	'TIMBR'	48	'1.32'
4	'XCTRL'	49	'1.35'
5	'PRESS'	50	'1.37'
6	'KEYBD'	51	'1.40'
7	'VELOC'	52	'1.42'
8	'KEYDN'	53	'1.45'
9	'PATCH'	54	'1.47'
10	'SUSTN'	55	'1.50'
11	'SOSTU'	56	'1.53'
12	'FX-SW'	57	'1.56'
13	'*OFF*'	58	'1.59'
		59	'1.62'
		60	'1.65'
		61	'1.68'
		62	'1.72'
		63	'1.75'
		64	'1.79'
		65	'1.82'
		66	'1.86'
		67	'1.90'
		68	'1.94'
		69	'1.98'
		70	'2.02'
		71	'2.07'
		72	'2.11'
		73	'2.16'
		74	'2.21'
		75	'2.26'
		76	'2.31'
		77	'2.36'
		78	'2.42'
		79	'2.48'
		80	'2.54'
		81	'2.60'
		82	'2.67'
		83	'2.74'
		84	'2.81'
		85	'2.89'
		86	'2.97'
		87	'3.05'
		88	'3.14'
		89	'3.23'
		90	'3.32'
		91	'3.42'
		92	'3.53'
		93	'3.64'
		94	'3.76'
		95	'3.89'
		96	'4.02'
		97	'4.17'
		98	'4.32'
		99	'4.48'
		100	'4.66'
		101	'4.84'
		102	'5.04'
		103	'5.26'
		104	'5.50'
		105	'5.75'
		106	'6.03'
		107	'6.34'
		108	'6.67'

109	'7.05'
110	'7.46'
111	'7.92'
112	'8.44'
113	'9.03'
114	'9.70'
115	'10.5'
116	'11.4'
117	'12.4'
118	'13.7'
119	'15.3'
120	'17.2'
121	'19.8'
122	'23.1'
123	'27.8'
124	'34.8'
125	'46.6'
126	'70.0'
127	'140.'

42	'0.92'
43	'0.93'
44	'0.95'
45	'0.97'
46	'0.98'
47	'1.00'
48	'1.02'
49	'1.03'
50	'1.05'
51	'1.07'
52	'1.09'
53	'1.11'
54	'1.13'
55	'1.15'
56	'1.17'
57	'1.19'
58	'1.21'
59	'1.23'
60	'1.26'
61	'1.28'
62	'1.30'
63	'1.33'
64	'1.35'
65	'1.38'
66	'1.41'
67	'1.44'
68	'1.46'
69	'1.49'
70	'1.53'
71	'1.56'
72	'1.59'
73	'1.62'
74	'1.66'
75	'1.70'
76	'1.73'
77	'1.77'
78	'1.82'
79	'1.86'
80	'1.90'
81	'1.95'
82	'2.00'
83	'2.05'
84	'2.10'
85	'2.15'
86	'2.21'
87	'2.27'
88	'2.34'
89	'2.40'
90	'2.47'
91	'2.54'
92	'2.62'
93	'2.70'
94	'2.79'
95	'2.88'
96	'2.98'
97	'3.08'
98	'3.20'
99	'3.31'
100	'3.44'
101	'3.58'
102	'3.72'
103	'3.88'
104	'4.05'
105	'4.24'
106	'4.44'

#21 Decay Time Table 1

0	'0.40'
1	'0.43'
2	'0.46'
3	'0.49'
4	'0.52'
5	'0.54'
6	'0.56'
7	'0.58'
8	'0.60'
9	'0.61'
10	'0.63'
11	'0.65'
12	'0.66'
13	'0.68'
14	'0.70'
15	'0.71'
16	'0.73'
17	'0.74'
18	'0.76'
19	'0.78'
20	'0.79'
21	'0.81'
22	'0.82'
23	'0.84'
24	'0.86'
25	'0.87'
26	'0.89'
27	'0.91'
28	'0.92'
29	'0.94'
30	'0.96'
31	'0.98'
32	'0.99'
33	'1.01'
34	'1.03'
35	'1.05'
36	'1.07'
37	'1.09'
38	'1.11'
39	'1.13'
40	'1.15'
41	'1.17'
42	'1.19'
43	'1.21'
44	'1.23'

#22 Decay Time Table 2

0	'0.20'
1	'0.36'
2	'0.39'
3	'0.41'
4	'0.43'
5	'0.45'
6	'0.46'
7	'0.48'
8	'0.49'
9	'0.50'
10	'0.51'
11	'0.53'
12	'0.54'
13	'0.55'
14	'0.56'
15	'0.57'
16	'0.58'
17	'0.60'
18	'0.61'
19	'0.62'
20	'0.63'
21	'0.64'
22	'0.65'
23	'0.67'
24	'0.68'
25	'0.69'
26	'0.70'
27	'0.71'
28	'0.73'
29	'0.74'
30	'0.75'
31	'0.76'
32	'0.78'
33	'0.79'
34	'0.80'
35	'0.82'
36	'0.83'
37	'0.84'
38	'0.86'
39	'0.87'
40	'0.89'
41	'0.90'

62	'1.30'
63	'1.33'
64	'1.35'
65	'1.38'
66	'1.41'
67	'1.44'
68	'1.46'
69	'1.49'
70	'1.53'
71	'1.56'
72	'1.59'
73	'1.62'
74	'1.66'
75	'1.70'
76	'1.73'
77	'1.77'
78	'1.82'
79	'1.86'
80	'1.90'
81	'1.95'
82	'2.00'
83	'2.05'
84	'2.10'
85	'2.15'
86	'2.21'
87	'2.27'
88	'2.34'
89	'2.40'
90	'2.47'
91	'2.54'
92	'2.62'
93	'2.70'
94	'2.79'
95	'2.88'
96	'2.98'
97	'3.08'
98	'3.20'
99	'3.31'
100	'3.44'
101	'3.58'
102	'3.72'
103	'3.88'
104	'4.05'
105	'4.24'
106	'4.44'

107	'4.66'	40	'2.11'	105	'10.4'	38	'1.07'
108	'4.91'	41	'2.15'	106	'11.0'	39	'1.09'
109	'5.18'	42	'2.19'	107	'11.5'	40	'1.12'
110	'5.48'	43	'2.22'	108	'12.1'	41	'1.14'
111	'5.81'	44	'2.26'	109	'12.8'	42	'1.17'
112	'6.19'	45	'2.30'	110	'13.5'	43	'1.19'
113	'6.62'	46	'2.34'	111	'14.4'	44	'1.22'
114	'7.11'	47	'2.39'	112	'15.3'	45	'1.24'
115	'7.67'	48	'2.43'	113	'16.4'	46	'1.27'
116	'8.33'	49	'2.47'	114	'17.6'	47	'1.30'
117	'9.10'	50	'2.52'	115	'19.0'	48	'1.33'
118	'10.0'	51	'2.56'	116	'20.6'	49	'1.35'
119	'11.2'	52	'2.61'	117	'22.5'	50	'1.38'
120	'12.6'	53	'2.66'	118	'24.9'	51	'1.41'
121	'14.4'	54	'2.71'	119	'27.7'	52	'1.44'
122	'16.9'	55	'2.76'	120	'31.2'	53	'1.47'
123	'20.3'	56	'2.81'	121	'35.8'	54	'1.51'
124	'25.4'	57	'2.86'	122	'41.9'	55	'1.54'
125	'33.9'	58	'2.91'	123	'50.3'	56	'1.57'
126	'51.0'	59	'2.97'	124	'63.1'	57	'1.61'
127	'100.'	60	'3.03'	125	'84.3'	58	'1.64'
		61	'3.08'	126	'120.'	59	'1.68'
		62	'3.15'	127	'250.'	60	'1.72'
		63	'3.21'			61	'1.75'
		64	'3.27'			62	'1.79'
		65	'3.34'			63	'1.83'
		66	'3.40'			64	'1.88'
		67	'3.47'			65	'1.92'
		68	'3.55'			66	'1.96'
		69	'3.62'			67	'2.01'
		70	'3.70'			68	'2.06'
		71	'3.78'			69	'2.10'
		72	'3.86'			70	'2.15'
		73	'3.94'			71	'2.21'
		74	'4.03'			72	'2.26'
		75	'4.12'			73	'2.31'
		76	'4.22'			74	'2.37'
		77	'4.32'			75	'2.43'
		78	'4.42'			76	'2.49'
		79	'4.52'			77	'2.56'
		80	'4.63'			78	'2.62'
		81	'4.75'			79	'2.69'
		82	'4.87'			80	'2.77'
		83	'4.99'			81	'2.84'
		84	'5.12'			82	'2.92'
		85	'5.26'			83	'3.00'
		86	'5.40'			84	'3.09'
		87	'5.55'			85	'3.18'
		88	'5.71'			86	'3.27'
		89	'5.88'			87	'3.37'
		90	'6.05'			88	'3.47'
		91	'6.23'			89	'3.58'
		92	'6.43'			90	'3.69'
		93	'6.63'			91	'3.81'
		94	'6.85'			92	'3.94'
		95	'7.07'			93	'4.07'
		96	'7.32'			94	'4.21'
		97	'7.58'			95	'4.36'
		98	'7.85'			96	'4.52'
		99	'8.15'			97	'4.69'
		100	'8.46'			98	'4.87'
		101	'8.80'			99	'5.06'
		102	'9.16'			100	'5.27'
		103	'9.56'			101	'5.49'
		104	'9.98'				

#23 Decay Time Table 3

0	'0.70'
1	'0.81'
2	'0.88'
3	'0.93'
4	'0.97'
5	'1.01'
6	'1.05'
7	'1.08'
8	'1.12'
9	'1.15'
10	'1.18'
11	'1.21'
12	'1.24'
13	'1.27'
14	'1.30'
15	'1.33'
16	'1.36'
17	'1.39'
18	'1.41'
19	'1.44'
20	'1.47'
21	'1.50'
22	'1.53'
23	'1.56'
24	'1.59'
25	'1.62'
26	'1.65'
27	'1.68'
28	'1.71'
29	'1.74'
30	'1.77'
31	'1.80'
32	'1.84'
33	'1.87'
34	'1.90'
35	'1.93'
36	'1.97'
37	'2.00'
38	'2.04'
39	'2.07'

#24 Decay Time Table 4

0	'0.20'
1	'0.27'
2	'0.31'
3	'0.35'
4	'0.38'
5	'0.40'
6	'0.42'
7	'0.45'
8	'0.47'
9	'0.49'
10	'0.51'
11	'0.53'
12	'0.55'
13	'0.57'
14	'0.59'
15	'0.61'
16	'0.63'
17	'0.64'
18	'0.66'
19	'0.68'
20	'0.70'
21	'0.72'
22	'0.74'
23	'0.76'
24	'0.78'
25	'0.80'
26	'0.82'
27	'0.84'
28	'0.86'
29	'0.88'
30	'0.90'
31	'0.92'
32	'0.94'
33	'0.96'
34	'0.98'
35	'1.00'
36	'1.02'
37	'1.05'

102	'5.73'
103	'5.98'
104	'6.26'
105	'6.56'
106	'6.89'
107	'7.25'
108	'7.65'
109	'8.09'
110	'8.58'
111	'9.12'
112	'9.74'
113	'10.4'
114	'11.2'
115	'12.1'
116	'13.2'
117	'14.5'
118	'16.0'
119	'17.8'
120	'20.1'
121	'23.1'
122	'27.1'
123	'32.6'
124	'40.9'
125	'54.8'
126	'82.5'
127	'150.'

#25 Log Freq Table

0	'0'
1	'10'
2	'20'
3	'30'
4	'40'
5	'50'
6	'60'
7	'70'
8	'80'
9	'90'
10	'100'
11	'200'
12	'300'
13	'400'
14	'500'
15	'600'
16	'700'
17	'800'
18	'900'
19	'1K'
20	'2K'
21	'3K'
22	'4K'
23	'5K'
24	'6K'
25	'7K'
26	'8K'
27	'9K'
28	'10K'
29	'11K'
30	'12K'
31	'13K'
32	'14K'
33	'15K'

#26 Log BW Table

0	'0'
1	'1'
2	'2'
3	'3'
4	'4'
5	'5'
6	'6'
7	'7'
8	'8'
9	'9'
10	'10'
11	'20'
12	'30'
13	'40'
14	'50'
15	'60'
16	'70'
17	'80'
18	'90'
19	'100'
20	'200'
21	'300'
22	'400'
23	'500'
24	'600'
25	'700'
26	'800'
27	'900'
28	'1K'
29	'2K'
30	'3K'
31	'4K'
32	'5K'
33	'6K'
34	'7K'
35	'8K'
36	'9K'
37	'10K'
38	'11K'
39	'12K'
40	'13K'
41	'14K'
42	'15K'

#27 DDL Time Table

0	'1'
1	'2'
2	'3'
3	'4'
4	'5'
5	'6'
6	'7'
7	'8'
8	'9'
9	'10'
10	'11'
11	'12'
12	'13'
13	'14'
14	'15'
15	'16'
16	'17'

17	'18'
18	'19'
19	'20'
20	'25'
21	'30'
22	'35'
23	'40'
24	'45'
25	'50'
26	'55'
27	'60'
28	'65'
29	'70'
30	'75'
31	'80'
32	'85'
33	'90'
34	'95'
35	'100'
36	'125'
37	'150'
38	'175'
39	'200'
40	'225'
41	'250'
42	'275'
43	'300'
44	'325'
45	'350'
46	'375'
47	'400'
48	'425'
49	'450'
50	'475'
51	'500'
52	'525'
53	'550'
54	'575'
55	'600'
56	'625'
57	'650'
58	'675'
59	'700'
60	'725'
61	'750'
62	'775'
63	'800'
64	'825'
65	'850'
66	'875'
67	'900'
68	'925'
69	'950'
70	'975'
71	'1K'

#28 Env Time Table 1

0	'50 USEC'
1	'100 USEC'
2	'200 USEC'
3	'400 USEC'
4	'800 USEC'
5	'1 MSEC'

6	'2 MSEC'
7	'3 MSEC'
8	'4 MSEC'
9	'5 MSEC'
10	'6 MSEC'
11	'7 MSEC'
12	'8 MSEC'
13	'9 MSEC'
14	'10 MSEC'
15	'11 MSEC'
16	'12 MSEC'
17	'13 MSEC'
18	'14 MSEC'
19	'15 MSEC'
20	'20 MSEC'
21	'30 MSEC'
22	'40 MSEC'
23	'50 MSEC'
24	'60 MSEC'
25	'70 MSEC'
26	'80 MSEC'
27	'90 MSEC'
28	'100 MSEC'
29	'200 MSEC'
30	'300 MSEC'
31	'400 MSEC'
32	'500 MSEC'
33	'600 MSEC'
34	'700 MSEC'
35	'800 MSEC'
36	'900 MSEC'
37	'1.0 SEC'
38	'1.1 SEC'
39	'1.2 SEC'
40	'1.3 SEC'
41	'1.4 SEC'
42	'1.5 SEC'
43	'1.6 SEC'
44	'1.7 SEC'
45	'1.8 SEC'
46	'1.9 SEC'
47	'2.0 SEC'
48	'2.5 SEC'
49	'3.0 SEC'
50	'3.5 SEC'
51	'4.0 SEC'
52	'4.5 SEC'
53	'5.0 SEC'
54	'6.0 SEC'
55	'7.0 SEC'
56	'8.0 SEC'
57	'9.0 SEC'
58	'10.0 SEC'

#29 Env Time Table 2

0	'1 MSEC'
1	'2 MSEC'
2	'3 MSEC'
3	'4 MSEC'
4	'5 MSEC'
5	'6 MSEC'
6	'7 MSEC'
7	'8 MSEC'

8	' 9 MSEC'	16	' 74'
9	' 10 MSEC'	17	' 88'
10	' 11 MSEC'	18	' 100'
11	' 12 MSEC'	19	' 125'
12	' 13 MSEC'	20	' 150'
13	' 14 MSEC'	21	' 175'
14	' 15 MSEC'	22	' 210'
15	' 20 MSEC'	23	' 250'
16	' 30 MSEC'	24	' 300'
17	' 40 MSEC'	25	' 350'
18	' 50 MSEC'	26	' 420'
19	' 60 MSEC'	27	' 500'
20	' 70 MSEC'	28	' 600'
21	' 80 MSEC'	29	' 700'
22	' 90 MSEC'	30	' 850'
23	'100 MSEC'	31	'1000'
24	'200 MSEC'	32	'1200'
25	'300 MSEC'	33	'1400'
26	'400 MSEC'	34	'1700'
27	'500 MSEC'	35	'2000'
28	'600 MSEC'	36	'2375'
29	'700 MSEC'	37	'2825'
30	'800 MSEC'	38	'3350'
31	'900 MSEC'	39	'4000'
32	' 1.0 SEC'	40	'4750'
33	' 1.1 SEC'	41	'5650'
34	' 1.2 SEC'	42	'6725'
35	' 1.3 SEC'	43	'8000'
36	' 1.4 SEC'		
37	' 1.5 SEC'		
38	' 1.6 SEC'		
39	' 1.7 SEC'		
40	' 1.8 SEC'		
41	' 1.9 SEC'		
42	' 2.0 SEC'		
43	' 2.5 SEC'		
44	' 3.0 SEC'		
45	' 3.5 SEC'		
46	' 4.0 SEC'		
47	' 4.5 SEC'		
48	' 5.0 SEC'		
49	' 6.0 SEC'		
50	' 7.0 SEC'		
51	' 8.0 SEC'		
52	' 9.0 SEC'		
53	'10.0 SEC'		

#31 Lo Fc Table 1

0	' 100'
1	' 125'
2	' 150'
3	' 175'
4	' 210'
5	' 250'
6	' 300'
7	' 350'
8	' 420'
9	' 500'
10	' 600'
11	' 700'
12	' 850'
13	'1000'
14	'1200'
15	'1400'
16	'1700'
17	'2000'
18	'2375'
19	'2825'
20	'3350'
21	'4000'
22	'4750'
23	'5650'
24	'6725'
25	'8000'
26	'9500'
27	'11 K'
28	'13 K'
29	'15 K'

#30 Hi Fc Table

0	' 4'
1	' 5'
2	' 6'
3	' 7'
4	' 9'
5	' 11'
6	' 13'
7	' 15'
8	' 18'
9	' 22'
10	' 26'
11	' 31'
12	' 37'
13	' 44'
14	' 52'
15	' 62'

#32 Lo Fc Table 2

0	'2.0 '
1	'2.5 '
2	'3.0 '
3	'3.5 '
4	'4.0 '
5	'4.5 '
6	'5.0 '
7	'6.0 '
8	'8.0 '
9	'15.0'

#33 Env Time Table 3

0	' 1 MSEC'
1	' 2 MSEC'
2	' 4 MSEC'
3	' 8 MSEC'
4	' 10 MSEC'
5	' 20 MSEC'
6	' 30 MSEC'
7	' 40 MSEC'
8	' 50 MSEC'
9	' 75 MSEC'
10	'100 MSEC'
11	'125 MSEC'
12	'150 MSEC'
13	'175 MSEC'
14	'200 MSEC'
15	'225 MSEC'
16	'250 MSEC'
17	'275 MSEC'
18	'300 MSEC'
19	'325 MSEC'
20	'350 MSEC'
21	'375 MSEC'
22	'400 MSEC'
23	'425 MSEC'
24	'450 MSEC'
25	'475 MSEC'
26	'500 MSEC'
27	'533 MSEC'
28	'566 MSEC'
29	'600 MSEC'
30	'633 MSEC'
31	'666 MSEC'
32	'700 MSEC'
33	'750 MSEC'
34	'800 MSEC'
35	'850 MSEC'
36	'900 MSEC'
37	'950 MSEC'
38	'1.00 SEC'
39	'1.05 SEC'
40	'1.10 SEC'
41	'1.15 SEC'
42	'1.20 SEC'
43	'1.25 SEC'
44	' 1.3 SEC'
45	' 1.4 SEC'
46	' 1.5 SEC'
47	' 1.6 SEC'
48	' 1.7 SEC'

#34 Env Time Table 4

0	'0.20 SEC'
1	'0.36 SEC'
2	'0.39 SEC'
3	'0.41 SEC'
4	'0.43 SEC'
5	'0.45 SEC'
6	'0.46 SEC'
7	'0.48 SEC'
8	'0.49 SEC'
9	'0.50 SEC'
10	'0.51 SEC'
11	'0.53 SEC'
12	'0.54 SEC'
13	'0.55 SEC'
14	'0.56 SEC'
15	'0.57 SEC'
16	'0.58 SEC'
17	'0.60 SEC'
18	'0.61 SEC'
19	'0.62 SEC'
20	'0.63 SEC'
21	'0.64 SEC'
22	'0.65 SEC'
23	'0.67 SEC'
24	'0.68 SEC'
25	'0.69 SEC'
26	'0.70 SEC'
27	'0.71 SEC'
28	'0.73 SEC'
29	'0.74 SEC'
30	'0.75 SEC'
31	'0.76 SEC'
32	'0.78 SEC'
33	'0.79 SEC'
34	'0.80 SEC'
35	'0.82 SEC'
36	'0.83 SEC'
37	'0.84 SEC'
38	'0.86 SEC'
39	'0.87 SEC'
40	'0.89 SEC'
41	'0.90 SEC'
42	'0.92 SEC'
43	'0.93 SEC'
44	'0.95 SEC'
45	'0.97 SEC'
46	'0.98 SEC'

47	'1.00 SEC'	111	'5.81 SEC'
48	'1.02 SEC'	112	'6.19 SEC'
49	'1.03 SEC'	113	'6.62 SEC'
50	'1.05 SEC'	114	'7.11 SEC'
51	'1.07 SEC'	115	'7.67 SEC'
52	'1.09 SEC'	116	'8.33 SEC'
53	'1.11 SEC'	117	'9.10 SEC'
54	'1.13 SEC'	118	'10.0 SEC'
55	'1.15 SEC'	119	'11.2 SEC'
56	'1.17 SEC'	120	'12.6 SEC'
57	'1.19 SEC'	121	'14.4 SEC'
58	'1.21 SEC'	122	'16.9 SEC'
59	'1.23 SEC'	123	'20.3 SEC'
60	'1.26 SEC'	124	'25.4 SEC'
61	'1.28 SEC'	125	'33.9 SEC'
62	'1.30 SEC'	126	'51.0 SEC'
63	'1.33 SEC'	127	'100. SEC'
64	'1.35 SEC'		
65	'1.38 SEC'		
66	'1.41 SEC'		
67	'1.44 SEC'		
68	'1.46 SEC'		
69	'1.49 SEC'		
70	'1.53 SEC'		
71	'1.56 SEC'		
72	'1.59 SEC'		
73	'1.62 SEC'		
74	'1.66 SEC'		
75	'1.70 SEC'		
76	'1.73 SEC'		
77	'1.77 SEC'		
78	'1.82 SEC'		
79	'1.86 SEC'		
80	'1.90 SEC'		
81	'1.95 SEC'		
82	'2.00 SEC'		
83	'2.05 SEC'		
84	'2.10 SEC'		
85	'2.15 SEC'		
86	'2.21 SEC'		
87	'2.27 SEC'		
88	'2.34 SEC'		
89	'2.40 SEC'		
90	'2.47 SEC'		
91	'2.54 SEC'		
92	'2.62 SEC'		
93	'2.70 SEC'		
94	'2.79 SEC'		
95	'2.88 SEC'		
96	'2.98 SEC'		
97	'3.08 SEC'		
98	'3.20 SEC'		
99	'3.31 SEC'		
100	'3.44 SEC'		
101	'3.58 SEC'		
102	'3.72 SEC'		
103	'3.88 SEC'		
104	'4.05 SEC'		
105	'4.24 SEC'		
106	'4.44 SEC'		
107	'4.66 SEC'		
108	'4.91 SEC'		
109	'5.18 SEC'		
110	'5.48 SEC'		

#35 Exp Ratio Table

0	'1/1 '
1	'1/1.1'
2	'1/1.2'
3	'1/1.3'
4	'1/1.4'
5	'1/1.5'
6	'1/1.6'
7	'1/1.7'
8	'1/1.8'
9	'1/1.9'
10	'1/2 '
11	'1/2.1'
12	'1/2.2'
13	'1/2.3'
14	'1/2.4'
15	'1/2.5'
16	'1/2.6'
17	'1/2.7'
18	'1/2.8'
19	'1/2.9'
20	'1/3 '
21	'1/4 '
22	'1/5 '
23	'1/6 '
24	'1/7 '
25	'1/8 '
26	'1/9 '
27	'1/10 '
28	'1/15 '
29	'1/20 '
30	'1/25 '
31	'1/30 '
32	'1/35 '
33	'1/40 '
34	'1/INF'

#36 Comp Ratio Table

0	' 1/1'
1	'1.1/1'
2	'1.2/1'
3	'1.3/1'
4	'1.4/1'
5	'1.5/1'
6	'1.6/1'
7	'1.7/1'
8	'1.8/1'
9	'1.9/1'
10	' 2/1'
11	'2.1/1'
12	'2.2/1'
13	'2.3/1'
14	'2.4/1'
15	'2.5/1'
16	'2.6/1'
17	'2.7/1'
18	'2.8/1'
19	'2.9/1'
20	' 3/1'
21	' 4/1'
22	' 5/1'
23	' 6/1'
24	' 7/1'
25	' 8/1'
26	' 9/1'
27	'10/1'
28	'15/1'
29	'20/1'
30	'25/1'
31	'30/1'
32	'35/1'
33	'40/1'
34	'INF/1'

#37 Speed Table

0	'SLOW'
1	'FAST'

#38 Off On Table

0	'OFF'
1	'ON'

#39 Phase Table

0	'OUT-OF-PHASE'
1	'IN-PHASE'

#40 Quality Table

0	'LONG/SMOOTH'
1	'SHORT/COARSE'