YAMAHA

# Clavinova®

## MIDI Reference

MIDI-Referenz

Référence MIDI

Referencia MIDI

CLP-685
CLP-675
CLP-645
CLP-635
CLP-695GP
CLP-665GP



EN
DE
FR
ES

# Effect Type List / Liste der Effekttypen / Liste des types d'effets / Lista de tipos de efectos

## Reverb Block

**Reverb types that can be selected by Voice Menu.**

| Effect Name | MSB | LSB |
|---|---|---|
| Off | 0 | 0 |
| Recital Hall | 1 | 24 |
| Concert Hall | 1 | 4 |
| Chamber | 2 | 24 |
| Cathedral | 1 | 5 |
| Club | 3 | 24 |
| Plate | 4 | 24 |

**All reverb types (CLP-685, CLP-695GP)**

| XG Effect Name | MSB | LSB |
|---|---|---|
| MODERN HALL | 1 | 24 |
| CONCERT HALL | 1 | 4 |
| CATHEDRAL | 1 | 5 |
| BASIC HALL | 1 | 21 |
| LIGHT HALL | 1 | 22 |
| BALLAD HALL | 1 | 19 |
| PIANO HALL | 1 | 20 |
| HALL1 | 1 | 0 |
| HALL2 | 1 | 16 |
| HALL3 | 1 | 17 |
| HALL4 | 1 | 18 |
| HALL5 | 1 | 1 |
| HALL M | 1 | 6 |
| HALL L | 1 | 7 |
| ATMO HALL | 1 | 23 |
| VOCAL HALL1 | 1 | 27 |
| VOCAL HALL2 | 1 | 28 |
| CHAMBER | 2 | 24 |
| CLUB | 3 | 24 |
| ACOUSTIC ROOM | 2 | 20 |
| DRUMS ROOM | 2 | 21 |
| PERC ROOM | 2 | 22 |
| ROOM1 | 2 | 16 |
| ROOM2 | 2 | 17 |
| ROOM3 | 2 | 18 |
| ROOM4 | 2 | 19 |
| ROOM5 | 2 | 0 |
| ROOM6 | 2 | 1 |
| ROOM7 | 2 | 2 |
| ROOM S | 2 | 5 |
| ROOM M | 2 | 6 |
| ROOM L | 2 | 7 |
| STAGE1 | 3 | 16 |
| STAGE2 | 3 | 17 |
| STAGE3 | 3 | 0 |
| STAGE4 | 3 | 1 |
| PLATE | 4 | 24 |
| PLATE1 | 4 | 16 |
| PLATE2 | 4 | 17 |
| PLATE3 | 4 | 0 |
| GM PLATE | 4 | 7 |
| TUNNEL | 17 | 0 |
| CANYON | 18 | 0 |
| BASEMENT | 19 | 0 |
| LARGE HALL | 1 | 2 |
| MEDIUM HALL | 1 | 3 |
| WARM ROOM | 2 | 3 |
| WHITE ROOM | 16 | 0 |
| WOODY ROOM | 2 | 4 |
| RICH PLATE | 4 | 1 |
| NO EFFECT | 0 | 0 |

## Chorus Block

**Chorus types that can be selected by Voice Menu.**

| Effect Name | MSB | LSB |
|---|---|---|
| Off | 0 | 0 |
| Chorus | 65 | 8 |
| Celeste | 66 | 8 |
| Flanger | 67 | 1 |

**All chorus types (CLP-685, CLP-695GP)**

| XG Effect Name | MSB | LSB |
|---|---|---|
| HALL1 | 1 | 0 |
| HALL2 | 1 | 16 |
| HALL3 | 1 | 17 |
| HALL4 | 1 | 18 |
| HALL5 | 1 | 1 |
| HALL M | 1 | 6 |
| HALL L | 1 | 7 |
| ATMO HALL | 1 | 23 |
| ACOUSTIC ROOM | 2 | 20 |
| DRUMS ROOM | 2 | 21 |
| PERC ROOM | 2 | 22 |
| ROOM1 | 2 | 16 |
| ROOM2 | 2 | 17 |
| ROOM3 | 2 | 18 |
| ROOM4 | 2 | 19 |
| ROOM5 | 2 | 0 |
| ROOM6 | 2 | 1 |
| ROOM7 | 2 | 2 |
| ROOM S | 2 | 5 |
| ROOM M | 2 | 6 |
| ROOM L | 2 | 7 |
| STAGE1 | 3 | 16 |
| STAGE2 | 3 | 17 |
| STAGE3 | 3 | 0 |
| STAGE4 | 3 | 1 |
| PLATE1 | 4 | 16 |
| PLATE2 | 4 | 17 |
| PLATE3 | 4 | 0 |
| GM PLATE | 4 | 7 |
| CHORUS1 | 66 | 17 |
| CHORUS2 | 66 | 8 |
| CHORUS3 | 66 | 16 |
| CHORUS4 | 66 | 1 |
| CHORUS5 | 65 | 2 |
| CHORUS6 | 65 | 0 |
| CHORUS7 | 65 | 1 |
| CHORUS8 | 65 | 8 |
| CHORUS FAST | 65 | 16 |
| CHORUS LITE | 65 | 17 |
| GM CHORUS1 | 65 | 3 |
| GM CHORUS2 | 65 | 4 |
| GM CHORUS3 | 65 | 5 |
| GM CHORUS4 | 65 | 6 |
| FB CHORUS | 65 | 7 |
| CELESTE1 | 66 | 0 |
| CELESTE2 | 66 | 2 |
| SYMPHONIC1 | 68 | 16 |
| SYMPHONIC2 | 68 | 0 |
| ENS DETUNE1 | 87 | 0 |
| ENS DETUNE2 | 87 | 16 |
| KARAOKE1 | 20 | 0 |
| KARAOKE2 | 20 | 1 |
| KARAOKE3 | 20 | 2 |
| FLANGER1 | 67 | 8 |
| FLANGER2 | 67 | 16 |
| FLANGER3 | 67 | 17 |
| FLANGER4 | 67 | 1 |
| FLANGER5 | 67 | 0 |
| GM FLANGER | 67 | 7 |
| T_FLANGER | 107 | 0 |
| TEMPO DELAY1 | 21 | 0 |
| TEMPO DELAY2 | 21 | 16 |
| TEMPO ECHO | 21 | 8 |
| TEMPO CROSS1 | 22 | 0 |
| TEMPO CROSS2 | 22 | 16 |
| TEMPO CROSS3 | 22 | 17 |
| TEMPO CROSS4 | 22 | 18 |
| PHASER1 | 72 | 0 |
| T_PHASER1 | 108 | 0 |
| T_PHASER2 | 108 | 16 |
| EP PHASER1 | 72 | 17 |
| EP PHASER2 | 72 | 18 |
| EP PHASER3 | 72 | 16 |
| ROTARY SP1 | 69 | 16 |
| ROTARY SP2 | 71 | 17 |
| ROTARY SP3 | 71 | 18 |
| ROTARY SP4 | 70 | 17 |
| ROTARY SP5 | 66 | 18 |
| ROTARY SP6 | 69 | 0 |
| ROTARY SP7 | 71 | 22 |
| AUTO PAN1 | 71 | 16 |
| AUTO PAN2 | 71 | 0 |
| EP AUTOPAN | 71 | 21 |
| T_AUTO PAN1 | 121 | 0 |
| TREMOLO1 | 70 | 16 |
| TREMOLO2 | 71 | 19 |
| TREMOLO3 | 70 | 0 |
| EP TREMOLO | 70 | 18 |
| GT TREMOLO1 | 71 | 20 |
| GT TREMOLO2 | 70 | 19 |
| VIBE VIBRATE | 119 | 0 |
| T_TREMOLO | 120 | 0 |
| NO EFFECT | 0 | 0 |

## DSP Block

**Effect type that can be selected by Voice Menu.**

| Effect Name | MSB | LSB |
|---|---|---|
| OFF | 64 | 0 |
| DelayLCR | 5 | 16 |
| DelayLR | 6 | 0 |
| Echo | 7 | 0 |
| CrossDelay | 8 | 0 |
| Symphonic | 68 | 16 |
| Rotary | 66 | 18 |
| Tremolo | 70 | 18 |
| VibeRotor | 119 | 0 |
| AutoPan | 71 | 21 |
| Phaser | 72 | 16 |
| AutoWah | 78 | 16 |

**All variation/insertion effects (CLP-685, CLP-695GP)**

| XG Effect Name | MSB | LSB |
|---|---|---|
| HALL1 | 1 | 0 |
| HALL2 | 1 | 16 |
| HALL3 | 1 | 17 |
| HALL4 | 1 | 18 |
| HALL5 | 1 | 1 |
| HALL M | 1 | 6 |
| HALL L | 1 | 7 |
| ATMO HALL | 1 | 23 |
| ACOUSTIC ROOM | 2 | 20 |
| DRUMS ROOM | 2 | 21 |
| PERC ROOM | 2 | 22 |
| ROOM1 | 2 | 16 |
| ROOM2 | 2 | 17 |
| ROOM3 | 2 | 18 |
| ROOM4 | 2 | 19 |
| ROOM5 | 2 | 0 |
| ROOM6 | 2 | 1 |
| ROOM7 | 2 | 2 |
| ROOM S | 2 | 5 |
| ROOM M | 2 | 6 |
| ROOM L | 2 | 7 |
| STAGE1 | 3 | 16 |
| STAGE2 | 3 | 17 |
| STAGE3 | 3 | 0 |
| STAGE4 | 3 | 1 |
| PLATE1 | 4 | 16 |
| PLATE2 | 4 | 17 |
| PLATE3 | 4 | 0 |
| GM PLATE | 4 | 7 |
| TUNNEL | 17 | 0 |
| CANYON | 18 | 0 |
| BASEMENT | 19 | 0 |
| WHITE ROOM | 16 | 0 |
| CHORUS1 | 66 | 17 |
| CHORUS2 | 66 | 8 |
| CHORUS3 | 66 | 16 |
| CHORUS4 | 66 | 1 |
| CHORUS5 | 65 | 2 |
| CHORUS6 | 65 | 0 |
| CHORUS7 | 65 | 1 |
| CHORUS8 | 65 | 8 |
| CHORUS FAST | 65 | 16 |
| CHORUS LITE | 65 | 17 |
| GM CHORUS1 | 65 | 3 |
| GM CHORUS2 | 65 | 4 |
| GM CHORUS3 | 65 | 5 |
| GM CHORUS4 | 65 | 6 |
| FB CHORUS | 65 | 7 |
| CELESTE1 | 66 | 0 |

| XG Effect Name | MSB | LSB |
|---|---|---|
| CELESTE2 | 66 | 2 |
| SYMPHONIC1 | 68 | 16 |
| SYMPHONIC2 | 68 | 0 |
| ENS DETUNE1 | 87 | 0 |
| ENS DETUNE2 | 87 | 16 |
| KARAOKE1 | 20 | 0 |
| KARAOKE2 | 20 | 1 |
| KARAOKE3 | 20 | 2 |
| ER1 | 9 | 0 |
| ER2 | 9 | 1 |
| GATE REVERB1 | 10 | 0 |
| GATE REVERB2 | 10 | 16 |
| REVERSE GATE | 11 | 0 |
| EQ DISCO | 76 | 16 |
| EQ TEL | 76 | 17 |
| 2BAND EQ | 77 | 0 |
| 3BAND EQ | 76 | 0 |
| ST 3BAND EQ | 76 | 18 |
| HM ENHANCE1 | 81 | 16 |
| HM ENHANCE2 | 81 | 0 |
| FLANGER1 | 67 | 8 |
| FLANGER2 | 67 | 16 |
| FLANGER3 | 67 | 17 |
| FLANGER4 | 67 | 1 |
| FLANGER5 | 67 | 0 |
| GM FLANGER | 67 | 7 |
| T_FLANGER | 107 | 0 |
| DELAY LCR1 | 5 | 16 |
| DELAY LCR2 | 5 | 0 |
| DELAY LR | 6 | 0 |
| ECHO | 7 | 0 |
| CROSS DELAY1 | 8 | 0 |
| CROSS DELAY2 | 8 | 16 |
| TEMPO DELAY1 | 21 | 0 |
| TEMPO DELAY2 | 21 | 16 |
| TEMPO ECHO | 21 | 8 |
| TEMPO CROSS1 | 22 | 0 |
| TEMPO CROSS2 | 22 | 16 |
| TEMPO CROSS3 | 22 | 17 |
| TEMPO CROSS4 | 22 | 18 |
| V_DIST WARM | 98 | 22 |
| V_DIST CLS H | 98 | 23 |
| V_DIST CLS S | 98 | 20 |
| V_DIST METAL | 98 | 24 |
| V_DIST CRUNC | 98 | 18 |
| V_DIST BLUES | 98 | 21 |
| V_DIST EDGY | 98 | 19 |
| V_DIST SOLID | 98 | 25 |
| V_DST CLEAN1 | 98 | 17 |
| V_DST CLEAN2 | 98 | 26 |
| V_DIST TWIN | 98 | 16 |
| V_DIST ROCA | 103 | 18 |
| V_DST JZ CLN | 98 | 27 |
| V_DST FUSION | 103 | 19 |
| ST AMP SOLID | 75 | 29 |
| ST AMP CRUNC | 75 | 30 |
| ST AMP BLUES | 75 | 28 |
| ST AMP CLEAN | 75 | 27 |
| ST AMP HARP | 75 | 31 |
| V_DIST HARD | 98 | 0 |
| V_DIST SOFT | 98 | 2 |
| DIST HARD1 | 75 | 16 |
| DIST HARD2 | 75 | 22 |
| DIST SOFT1 | 75 | 17 |
| DIST SOFT2 | 75 | 23 |
| DIST HEAVY | 73 | 0 |
| OVER DRIVE | 74 | 0 |
| ST DIST | 73 | 8 |
| ST OD | 74 | 8 |
| ST DIST HARD | 75 | 18 |

| XG Effect Name | MSB | LSB |
|---|---|---|
| ST DIST SOFT | 75 | 19 |
| AMP SIM1 | 75 | 0 |
| AMP SIM2 | 75 | 1 |
| ST AMP1 | 75 | 20 |
| ST AMP2 | 75 | 21 |
| ST AMP3 | 75 | 8 |
| ST AMP4 | 75 | 24 |
| ST AMP5 | 75 | 25 |
| ST AMP6 | 75 | 26 |
| DST+DELAY1 | 95 | 16 |
| DST+DELAY2 | 95 | 0 |
| OD+DELAY1 | 95 | 17 |
| OD+DELAY2 | 95 | 1 |
| CMP+DST+DLY1 | 96 | 16 |
| CMP+DST+DLY2 | 96 | 0 |
| CMP+OD+DLY1 | 96 | 17 |
| CMP+OD+DLY2 | 96 | 1 |
| V_DST H+DLY | 98 | 1 |
| V_DST S+DLY | 98 | 3 |
| DST+TDLY | 100 | 0 |
| OD+TDLY | 100 | 1 |
| COMP+DIST1 | 73 | 16 |
| COMP+DIST2 | 73 | 1 |
| CMP+DST+TDL | 101 | 0 |
| CMP+OD+TDLY1 | 101 | 1 |
| CMP+OD+TDLY2 | 101 | 16 |
| CMP+OD+TDLY3 | 101 | 17 |
| CMP+OD+TDLY4 | 101 | 18 |
| CMP+OD+TDLY5 | 101 | 19 |
| CMP+OD+TDLY6 | 101 | 20 |
| V_DST H+TDL1 | 103 | 0 |
| V_DST H+TDL2 | 103 | 17 |
| V_DST S+TDL1 | 103 | 1 |
| V_DST S+TDL2 | 103 | 16 |
| COMP MED | 83 | 16 |
| COMP HEAVY | 83 | 17 |
| COMP MELODY | 105 | 16 |
| COMP BASS | 105 | 17 |
| MBAND COMP | 105 | 0 |
| COMPRESSOR | 83 | 0 |
| NOISE GATE | 84 | 0 |
| VCE CANCEL | 85 | 0 |
| AMBIENCE | 88 | 0 |
| TALKING MOD | 93 | 0 |
| LO-FI DRUM3 | 76 | 19 |
| LO-FI DRUM4 | 76 | 20 |
| ISOLATOR | 115 | 0 |
| PHASER1 | 72 | 0 |
| PHASER2 | 72 | 8 |
| PHASER3 | 72 | 19 |
| T_PHASER1 | 108 | 0 |
| T_PHASER2 | 108 | 16 |
| EP PHASER1 | 72 | 17 |
| EP PHASER2 | 72 | 18 |
| EP PHASER3 | 72 | 16 |
| PITCH CHG1 | 80 | 16 |
| PITCH CHG2 | 80 | 0 |
| PITCH CHG3 | 80 | 1 |
| DUAL ROT BRT | 99 | 16 |
| DUAL ROT WRM | 99 | 17 |
| DUAL ROT SP1 | 99 | 0 |
| DUAL ROT SP2 | 99 | 1 |
| ROTARY SP1 | 69 | 16 |
| ROTARY SP2 | 71 | 17 |
| ROTARY SP3 | 71 | 18 |
| ROTARY SP4 | 70 | 17 |
| ROTARY SP5 | 66 | 18 |
| ROTARY SP6 | 69 | 0 |
| ROTARY SP7 | 71 | 22 |
| 2WAY ROT SP | 86 | 0 |

| XG Effect Name | MSB | LSB |
|---|---|---|
| DST+ROT SP | 69 | 1 |
| DST+2ROT SP | 86 | 1 |
| OD+ROT SP | 69 | 2 |
| OD+2ROT SP | 86 | 2 |
| AMP+ROT SP | 69 | 3 |
| AMP+2ROT SP | 86 | 3 |
| AUTO PAN1 | 71 | 16 |
| AUTO PAN2 | 71 | 0 |
| AUTO PAN3 | 71 | 1 |
| EP AUTOPAN | 71 | 21 |
| T_AUTO PAN1 | 121 | 0 |
| T_AUTO PAN2 | 121 | 1 |
| TREMOLO1 | 70 | 16 |
| TREMOLO2 | 71 | 19 |
| TREMOLO3 | 70 | 0 |
| EP TREMOLO | 70 | 18 |
| GT TREMOLO1 | 71 | 20 |
| GT TREMOLO2 | 70 | 19 |
| VIBE VIBRATE | 119 | 0 |
| T_TREMOLO | 120 | 0 |
| AUTO WAH1 | 78 | 16 |
| AUTO WAH2 | 78 | 0 |
| AT.WAH+DST1 | 78 | 17 |
| AT.WAH+DST2 | 78 | 1 |
| AT.WH+DST HD | 78 | 21 |
| AT.WH+DST HV | 78 | 23 |
| AT.WH+DST LT | 78 | 25 |
| AT.WAH+OD1 | 78 | 18 |
| AT.WAH+OD2 | 78 | 2 |
| AT.WH+OD HD | 78 | 22 |
| AT.WH+OD HV | 78 | 24 |
| AT.WH+OD LT | 78 | 26 |
| TEMPO AT.WAH | 79 | 0 |
| T_AT.WH+DST | 79 | 1 |
| T_A.WH+DSTHD | 79 | 21 |
| T_A.WH+DSTHV | 79 | 23 |
| T_A.WH+DSTLT | 79 | 25 |
| T_AT.WH+OD | 79 | 2 |
| T_A.WH+OD HD | 79 | 22 |
| T_A.WH+OD HV | 79 | 24 |
| T_A.WH+OD LT | 79 | 26 |
| TOUCH WAH1 | 82 | 0 |
| TOUCH WAH2 | 82 | 8 |
| TOUCH WAH3 | 82 | 20 |
| TC.WH+DST1 | 82 | 16 |
| TC.WH+DST2 | 82 | 1 |
| TC.WH+DST HD | 82 | 21 |
| TC.WH+DST HV | 82 | 23 |
| TC.WH+DST LT | 82 | 25 |
| TC.WAH+OD1 | 82 | 17 |
| TC.WAH+OD2 | 82 | 2 |
| TC.WAH+OD HD | 82 | 22 |
| TC.WAH+OD HV | 82 | 24 |
| TC.WAH+OD LT | 82 | 26 |
| WH+DST+DLY1 | 97 | 16 |
| WH+DST+DLY2 | 97 | 0 |
| WH+DST+TDLY | 102 | 0 |
| WH+OD+DLY1 | 97 | 17 |
| WH+OD+DLY2 | 97 | 1 |
| WH+OD+TDLY1 | 102 | 1 |
| WH+OD+TDLY2 | 102 | 16 |
| CLAVI TC.WAH | 82 | 18 |
| EP TC.WAH | 82 | 19 |
| PEDAL WAH | 122 | 0 |
| PEDAL WH+DST | 122 | 1 |
| P.WH+DIST HD | 122 | 21 |
| P.WH+DIST HV | 122 | 23 |
| P.WH+DIST LT | 122 | 25 |
| PEDAL WH+OD | 122 | 2 |
| P.WH+OD HD | 122 | 22 |

| XG Effect Name | MSB | LSB |
|---|---|---|
| P.WH+OD HV | 122 | 24 |
| P.WH+OD LT | 122 | 26 |
| NO EFFECT | 0 | 0 |
| THRU | 64 | 0 |

# Effect Parameter List / Liste der Effektparameter / Liste des paramètres d'effets / Lista de parámetros de efectos

Parameters marked with a ● in the "Control" column can be controlled from an AC1 (assignable controller 1) etc.

(Parameter 10 Dry/Wet only affects DSP type effects.)
(*1) Reverb Block
(*2) Chorus Block
(*3) DSP Block

## REVERB

**BASIC HALL, LIGHT HALL, HALL1, 2, 3, 4, 5, HALL M, HALL L, ATMO HALL, VOCAL HALL1, 2, ACOUSTIC ROOM, DRUMS ROOM, PERC ROOM, ROOM1, 2, 3, 4, 5, 6, 7, ROOM S, ROOM M, ROOM L, STAGE1, 2, 3, 4, PLATE1, 2, 3, GM PLATE**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Reverb Time | 0.3s – 30.0s | 0 – 69 | Table #4 | |
| 2 | Diffusion | 0 – 10 | 0 – 10 | | |
| 3 | Initial Delay | 0.1ms – 200.0ms (*1)<br>0.1ms – 99.3ms (*2, 3) | 0 – 127<br>0 – 63 | Table #5 | |
| 4 | HPF Cutoff | Thru, 22Hz – 8.0kHz | 0, 1 – 52 | Table #3 | |
| 5 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Rev Delay | 0.1ms – 200.0ms (*1)<br>0.1ms – 99.3ms (*2, 3) | 0 – 127<br>0 – 63 | Table #5 | |
| 12 | Density | 0 – 4 (*1, 3)<br>0 – 2 (*2) | 0 – 4<br>0 – 2 | | |
| 13 | Er/Rev Balance | E63>R – E=R – E<R63 | 1 – 64 – 127 | | |
| 14 | High Damp | 0.1 – 1.0 | 1 – 10 | | |
| 15 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 16 | | | | | |

**BALLAD HALL, PIANO HALL, LARGE HALL, MEDIUM HALL WARM ROOM, WOODY ROOM, RICH PLATE**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Reverb Time | 0.3s – 30.0s | 0 – 69 | Table #4 | |
| 2 | Diffusion | 0 – 10 | 0 – 10 | | |
| 3 | Initial Delay | 0.1ms – 200.0ms | 0 – 127 | Table #5 | |
| 4 | HPF Cutoff | Thru, 22Hz – 8.0kHz | 0, 1 – 52 | Table #3 | |
| 5 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | High Damp | 0.1 – 1.0 | 1 – 10 | | |
| 15 | | | | | |
| 16 | | | | | |

**TUNNEL, CANYON, BASEMENT, WHITE ROOM**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Reverb Time | 0.3s – 30.0s | 0 – 69 | Table #4 | |
| 2 | Diffusion | 0 – 10 | 0 – 10 | | |
| 3 | Initial Delay | 0.1ms – 200.0ms (*1)<br>0.1ms – 99.3ms (*3) | 0 – 127<br>0 – 63 | Table #5 | |
| 4 | HPF Cutoff | Thru, 22Hz – 8.0kHz | 0, 1 – 52 | Table #3 | |
| 5 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 6 | Width | 0.5m – 30.2m (*1)<br>0.5m – 10.2m (*3) | 0 – 104<br>0 – 37 | Table #11 | |
| 7 | Height | 0.5m – 30.2m (*1)<br>0.5m – 20.2m (*3) | 0 – 104<br>0 – 73 | Table #11 | |
| 8 | Depth | 0.5m – 30.2m | 0 – 104 | Table #11 | |
| 9 | Wall Vary | 0 – 30 | 0 – 30 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Rev Delay | 0.1ms – 200.0ms (*1)<br>0.1ms – 99.3ms (*3) | 0 – 127<br>0 – 63 | Table #5 | |
| 12 | Density | 0 – 4 | 0 – 4 | | |
| 13 | Er/Rev Balance | E63>R – E=R – E<R63 | 1 – 64 – 127 | | |
| 14 | High Damp | 0.1 – 1.0 | 1 – 10 | | |
| 15 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 16 | | | | | |

**MODERN HALL, CONCERT HALL, CATHEDRAL, CHAMBER, CLUB, PLATE**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

## DELAY

**DELAY LCR1, DELAY LCR2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Lch Delay | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 2 | Rch Delay | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 3 | Cch Delay | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 4 | Feedback Delay | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 5 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 6 | Cch Level | 0 – 127 | 0 – 127 | | |
| 7 | High Damp | 0.1 – 1.0 | 1 – 10 | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | | | | | |
| 12 | | | | | |
| 13 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 14 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 15 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 16 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |

**DELAY LR**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Lch Delay | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 2 | Rch Delay | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 3 | Feedback Delay 1 | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 4 | Feedback Delay 2 | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 5 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 6 | High Damp | 0.1 – 1.0 | 1 – 10 | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | | | | | |
| 12 | | | | | |
| 13 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 14 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 15 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 16 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |

**ECHO**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Lch Delay1 | 0.1ms – 1486.0ms | 1 – 14860 | | |
| 2 | Lch Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 3 | Rch Delay1 | 0.1ms – 1486.0ms | 1 – 14860 | | |
| 4 | Rch Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 5 | High Damp | 0.1 – 1.0 | 1 – 10 | | |
| 6 | Lch Delay2 | 0.1ms – 1486.0ms | 1 – 14860 | | |
| 7 | Rch Delay2 | 0.1ms – 1486.0ms | 1 – 14860 | | |
| 8 | Delay2 Level | 0 – 127 | 0 – 127 | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | | | | | |
| 12 | | | | | |
| 13 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 14 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 15 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 16 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |

**CROSS DELAY1, CROSS DELAY2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | L->R Delay | 0.1ms – 1486.0ms | 1 – 14860 | | |
| 2 | R->L Delay | 0.1ms – 1486.0ms | 1 – 14860 | | |
| 3 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 4 | Input Select | L, R, L&R | 0 – 2 | | |
| 5 | High Damp | 0.1 – 1.0 | 1 – 10 | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | | | | | |
| 12 | | | | | |
| 13 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 14 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 15 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 16 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |

**TEMPO DELAY1, TEMPO DELAY2, TEMPO ECHO**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Delay Time | 64th/3 – 4thx6 | 0 – 19 | Table #13 | |
| 2 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 3 | Feedback High Dump | 0.1 – 1.0 | 1 – 10 | | |
| 4 | L/R Diffusion | -63ms – 0ms – 63ms | 1 – 64 – 127 | | |
| 5 | Lag | -63ms – 0ms – 63ms | 1 – 64 – 127 | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | | | | | |
| 12 | | | | | |
| 13 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | | |
| 14 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 15 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | | |
| 16 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |

**TEMPO CROSS1, 2, 3, 4**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Delay Time L>R | 64th/3 – 4thx6 | 0 – 19 | Table #13 | |
| 2 | Delay Time R>L | 64th/3 – 4thx6 | 0 – 19 | Table #13 | |
| 3 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 4 | Input Select | L, R, L&R | 0 – 2 | | |
| 5 | Feedback High Dump | 0.1 – 1.0 | 1 – 10 | | |
| 6 | Lag | -63ms – 0ms – 63ms | 1 – 64 – 127 | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | | | | | |
| 12 | | | | | |
| 13 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | | |
| 14 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 15 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | | |
| 16 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |

## ER/KARAOKE

**KARAOKE1, 2, 3**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Delay Time | 0.1ms – 400.0ms | 0 – 127 | Table #7 | |
| 2 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 3 | HPF Cutoff | Thru, 22Hz – 8.0kHz | 0, 1 – 52 | Table #3 | |
| 4 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Density | 0 – 3 | 0 – 3 | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**ER1, ER2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Type | S-H, L-H, Rdm, Rvs, Plt, Spr | 0 – 5 | | |
| 2 | Room Size | 0.1 – 20.0 | 0 – 127 | Table #6 | |
| 3 | Diffusion | 0 – 10 | 0 – 10 | | |
| 4 | Initial Delay | 0.1ms – 200.0ms | 0 – 127 | Table #5 | |
| 5 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 6 | HPF Cutoff | Thru, 22Hz – 8.0kHz | 0, 1 – 52 | Table #3 | |
| 7 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Liveness | 0 – 10 | 0 – 10 | | |
| 12 | Density | 0 – 3 | 0 – 3 | | |
| 13 | High Damp | 0.1 – 1.0 | 1 – 10 | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**GATE REVERB1, GATE REVERB2, REVERSE GATE**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Type | TypeA, TypeB | 0 – 1 | | |
| 2 | Room Size | 0.1 – 20.0 | 0 – 127 | Table #6 | |
| 3 | Diffusion | 0 – 10 | 0 – 10 | | |
| 4 | Initial Delay | 0.1ms – 200.0ms | 0 – 127 | Table #5 | |
| 5 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 6 | HPF Cutoff | Thru, 22Hz – 8.0kHz | 0, 1 – 52 | Table #3 | |
| 7 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Liveness | 0 – 10 | 0 – 10 | | |
| 12 | Density | 0 – 3 | 0 – 3 | | |
| 13 | High Damp | 0.1 – 1.0 | 1 – 10 | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

## CHORUS

**CHORUS1, 2, 3, 4, 5, 6, 7, 8, CHORUS FAST, CHORUS LITE, GM CHORUS1, 2, 3, 4, FB CHORUS, CELESTE1, 2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 4 | Delay Offset | 0.0ms – 50ms | 0 – 127 | Table #2 | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | | | | | |
| 15 | Input Mode | mono, stereo | 0 – 1 | | |
| 16 | | | | | |

**SYMPHONIC1, SYMPHONIC2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | Delay Offset | 0.0ms – 50ms | 0 – 127 | Table #2 | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**ENS DETUNE1, ENS DETUNE2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Detune | -50cent – 0cent – +50cent | 14 – 64 – 114 | | |
| 2 | Lch Init Delay | 0.0ms – 50ms | 0 – 127 | Table #2 | |
| 3 | Rch Init Delay | 0.0ms – 50ms | 0 – 127 | Table #2 | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 12 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 14 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 15 | | | | | |
| 16 | | | | | |

## FLANGER

**FLANGER1, 2, 3, 4, 5, GM FLANGER**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 4 | Delay Offset | 0.0ms – 50ms | 0 – 127 | Table #2 | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | LFO Phase Difference | -180deg – 0deg – +180deg | 4 – 64 – 124 | resolution =3deg. | |
| 15 | | | | | |
| 16 | | | | | |

**T_FLANGER**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Freq | 16th – 4thx16 | 5 – 29 | Table #13 | |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 4 | Delay Offset | 0.0ms – 50ms | 0 – 127 | Table #2 | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | LFO Phase Difference | -180deg – 0deg – +180deg | 4 – 64 – 124 | resolution =3deg. | |
| 15 | | | | | |
| 16 | | | | | |

## PHASER

**PHASER1, EP PHASER1, 2, 3**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | Phase Shift Offset | 0 – 127 | 0 – 127 | | |
| 4 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Stage | 4 – 22 (*3)<br>4 – 12 (*2) | 4 – 22<br>4 – 12 | | |
| 12 | Diffusion | mono, stereo | 0 – 1 | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**PHASER2, PHASER3**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | Phase Shift Offset | 0 – 127 | 0 – 127 | | |
| 4 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Stage | 3 – 11 | 3 – 11 | | |
| 12 | | | | | |
| 13 | LFO Phase Difference | -180deg – 0deg – +180deg | 4 – 64 – 124 | resolution =3deg. | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**T_PHASER1, T_PHASER2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Freq | 16th – 4thx16 | 5 – 29 | Table #13 | |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | Phase Shift Offset | 0 – 127 | 0 – 127 | | |
| 4 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Stage | 3 – 11 | 3 – 11 | | |
| 12 | | | | | |
| 13 | LFO Phase Difference | -180deg – 0deg – +180deg | 4 – 64 – 124 | resolution =3deg. | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

## DISTORTION

**V_DIST WARM, V_DIST CLS H, V_DIST CLS S, V_DIST METAL, V_DIST CRUNC, V_DIST BLUES, V_DIST EDGY, V_DIST SOLID, V_DST CLEAN1, V_DST CLEAN2, V_DIST TWIN, V_DST JZ CLN, V_DIST HARD, V_DSIT SOFT**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Overdrive | 0% – 100% | 0 – 100 | | |
| 2 | Device | Transistor, Vintage Tube, Dist1, Dist2, Fuzz | 0 – 4 | | |
| 3 | Speaker | Flat, Stack, Combo, Twin, Radio, Megaphone | 0 – 5 | | |
| 4 | Presence | 0 – 20 | 0 – 20 | | |
| 5 | Output Level | 0% – 100% | 0 – 100 | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet Balance | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**V_DIST ROCA, V_DST FUSION**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Overdrive | 0% – 100% | 0 – 100 | | |
| 2 | Device | Transistor, Vintage Tube, Dist1, Dist2, Fuzz | 0 – 4 | | |
| 3 | Speaker | Flat, Stack, Combo, Twin, Radio, Megaphone | 0 – 5 | | |
| 4 | Presence | 0 – 20 | 0 – 20 | | |
| 5 | Output Level | 0% – 100% | 0 – 100 | | |
| 6 | Delay Time | 64th/3 – 4thx6 | 0 – 19 | Table #13 | |
| 7 | Delay Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 8 | L/R Diffusion | -63ms – 0ms – 63ms | 1 – 64 – 127 | | |
| 9 | Lag | -63ms – 0ms – 63ms | 1 – 64 – 127 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Delay Mix | 0 – 127 | 0 – 127 | | |
| 12 | Feedback High Dump | 0.1 – 1.0 | 1 – 10 | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**ST AMP SOLID, ST AMP CRUNC, ST AMP BLUES, ST AMP CLEAN, ST AMP HARP, ST DIST HARD, ST DIST SOFT, ST AMP1, 2, 3, 4, 5, 6**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Drive | 0 – 127 | 0 – 127 | | ● |
| 2 | AMP Type | Off, Stack, Combo, Tube | 0 – 3 | | |
| 3 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 4 | Output Level | 0 – 127 | 0 – 127 | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | Edge (Clip Curve) | 0 – 127 (mild – sharp) | 0 – 127 | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**DIST HARD1, DIST HARD2, DIST SOFT1, DIST SOFT2, AMP SIM1**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Drive | 0 – 127 | 0 – 127 | | ● |
| 2 | AMP Type | Off, Stack, Combo, Tube | 0 – 3 | | |
| 3 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 4 | Output Level | 0 – 127 | 0 – 127 | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | Edge (Clip Curve) | 0 – 127 (mild – sharp) | 0 – 127 | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**DIST HEAVY, OVERDRIVE**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Drive | 0 – 127 | 0 – 127 | | ● |
| 2 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 3 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 4 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 5 | Output Level | 0 – 127 | 0 – 127 | | |
| 6 | | | | | |
| 7 | EQ Mid Frequency | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 8 | EQ Mid Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 9 | EQ Mid Width | 0.1 – 12.0 | 1 – 120 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | Edge (Clip Curve) | 0 – 127 (mild – sharp) | 0 – 127 | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**ST DIST, ST OD**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Drive | 0 – 127 | 0 – 127 | | ● |
| 2 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 3 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 4 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 5 | Output Level | 0 – 127 | 0 – 127 | | |
| 6 | | | | | |
| 7 | EQ Mid Frequency | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 8 | EQ Mid Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 9 | EQ Mid Width | 0.1 – 12.0 | 1 – 120 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | Edge (Clip Curve) | 0 – 127 | 0 – 127 | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**AMP SIM2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Drive | 0 – 127 | 0 – 127 | | ● |
| 2 | AMP Type | Off, Stack, Combo, Tube, Crunch, Hi gain, British | 0 – 6 | | |
| 3 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 4 | Output Level | 0 – 127 | 0 – 127 | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

## DISTORTION+

**DST+DELAY1, DST+DELAY2, OD+DELAY1, OD+DELAY2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Lch Delay Time | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 2 | Rch Delay Time | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 3 | Delay Feedback Time | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 4 | Delay Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 5 | Delay Mix | 0 – 127 | 0 – 127 | | |
| 6 | Dist Drive | 0 – 127 | 0 – 127 | | |
| 7 | Dist Output Level | 0 – 127 | 0 – 127 | | |
| 8 | Dist EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 9 | Dist EQ Mid Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**CMP+DST+DLY1, CMP+DST+DLY2, CMP+OD+DLY1, CMP+OD+DLY2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Delay Time | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 2 | Delay Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 3 | Delay Mix | 0 – 127 | 0 – 127 | | |
| 4 | Dist Drive | 0 – 127 | 0 – 127 | | |
| 5 | Dist Output Level | 0 – 127 | 0 – 127 | | |
| 6 | Dist EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 7 | Dist EQ Mid Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Comp. Attack | 1ms – 40ms | 0 – 19 | Table #8 | |
| 12 | Comp. Release | 10ms – 680ms | 0 – 15 | Table #9 | |
| 13 | Comp. Threshold | -48dB – -6dB | 79 – 121 | | |
| 14 | Comp. Ratio | 1.0 – 20.0 | 0 – 7 | Table #10 | |
| 15 | | | | | |
| 16 | | | | | |

**V_DST H+DLY, V_DST S+DLY**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Overdrive | 0% – 100% | 0 – 100 | | |
| 2 | Device | Transistor, Vintage Tube, Dist1, Dist2, Fuzz | 0 – 4 | | |
| 3 | Speaker | Flat, Stack, Combo, Twin, Radio, Megaphone | 0 – 5 | | |
| 4 | Presence | 0 – 20 | 0 – 20 | | |
| 5 | Output Level | 0% – 100% | 0 – 100 | | |
| 6 | Delay Time L | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 7 | Delay Time R | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 8 | Delay Feedback Time | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 9 | Delay Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 10 | Dry/Wet Balance | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Delay Mix | 0 – 127 | 0 – 127 | | |
| 12 | Feedback High Dump | 0.1 – 1.0 | 1 – 10 | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**DST+TDLY, OD+TDLY**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Delay Time | 64th/3 – 4thx6 | 0 – 19 | Table #13 | |
| 2 | Delay Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 3 | Delay Mix | 0 – 127 | 0 – 127 | | |
| 4 | Dist Drive | 0 – 127 | 0 – 127 | | |
| 5 | Dist Output Level | 0 – 127 | 0 – 127 | | |
| 6 | Dist EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 7 | Dist EQ Mid Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | L/R Diffusion | -63ms – 0ms – 63ms | 1 – 64 – 127 | | |
| 9 | Lag | -63ms – 0ms – 63ms | 1 – 64 – 127 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**COMP+DIST1, COMP+DIST2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Drive | 0 – 127 | 0 – 127 | | ● |
| 2 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 3 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 4 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 5 | Output Level | 0 – 127 | 0 – 127 | | |
| 6 | | | | | |
| 7 | EQ Mid Frequency | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 8 | EQ Mid Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 9 | EQ Mid Width | 0.1 – 12.0 | 1 – 120 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | Edge (Clip Curve) | 0 – 127 (mild – sharp) | 0 – 127 | | |
| 12 | Attack | 1ms – 40ms | 0 – 19 | Table #8 | |
| 13 | Release | 10ms – 680ms | 0 – 15 | Table #9 | |
| 14 | Threshold | -48dB – -6dB | 79 – 121 | | |
| 15 | Ratio | 1.0 – 20.0 | 0 – 7 | Table #10 | |
| 16 | | | | | |

**CMP+DST+TDL, CMP+OD+TDLY1, 2, 3, 4, 5, 6**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Delay Time | 64th/3 – 4thx6 | 0 – 19 | Table #13 | |
| 2 | Delay Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 3 | Delay Mix | 0 – 127 | 0 – 127 | | |
| 4 | Dist Drive | 0 – 127 | 0 – 127 | | |
| 5 | Dist Output Level | 0 – 127 | 0 – 127 | | |
| 6 | Dist EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 7 | Dist EQ Mid Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | L/R Diffusion | -63ms – 0ms – 63ms | 1 – 64 – 127 | | |
| 9 | Lag | -63ms – 0ms – 63ms | 1 – 64 – 127 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Comp. Attack | 1ms – 40ms | 0 – 19 | Table #8 | |
| 12 | Comp. Release | 10ms – 680ms | 0 – 15 | Table #9 | |
| 13 | Comp. Threshold | -48dB – -6dB | 79 – 121 | | |
| 14 | Comp. Ratio | 1.0 – 20.0 | 0 – 7 | Table #10 | |
| 15 | | | | | |
| 16 | | | | | |

**V_DST H+TDL1, V_DST H+TDL2, V_DST S+TDL1, V_DST S+TDL2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Overdrive | 0% – 100% | 0 – 100 | | |
| 2 | Device | Transistor, Vintage Tube, Dist1, Dist2, Fuzz | 0 – 4 | | |
| 3 | Speaker | Flat, Stack, Combo, Twin, Radio, Megaphone | 0 – 5 | | |
| 4 | Presence | 0 – 20 | 0 – 20 | | |
| 5 | Output Level | 0% – 100% | 0 – 100 | | |
| 6 | Delay Time | 64th/3 – 4thx6 | 0 – 19 | Table #13 | |
| 7 | Delay Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 8 | L/R Diffusion | -63ms – 0ms – 63ms | 1 – 64 – 127 | | |
| 9 | Lag | -63ms – 0ms – 63ms | 1 – 64 – 127 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Delay Mix | 0 – 127 | 0 – 127 | | |
| 12 | Feedback High Dump | 0.1 – 1.0 | 1 – 10 | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

## PITCH CHANGE

**PITCH CHG1, PITCH CHG2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Pitch | -24 – +24 | 40 – 88 | | |
| 2 | Initial Delay | 0.1ms – 400.0ms | 0 – 127 | Table #7 | |
| 3 | Fine 1 | -50cent – 0cent – +50cent | 14 – 64 – 114 | | |
| 4 | Fine 2 | -50cent – 0cent – +50cent | 14 – 64 – 114 | | |
| 5 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Pan 1 | L63 – C – R63 | 1 – 64 – 127 | | |
| 12 | Output Level 1 | 0 – 127 | 0 – 127 | | |
| 13 | Pan 2 | L63 – C – R63 | 1 – 64 – 127 | | |
| 14 | Output Level 2 | 0 – 127 | 0 – 127 | | |
| 15 | | | | | |
| 16 | | | | | |

**PITCH CHG3**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Pitch | -24 – +24 | 40 – 88 | | |
| 2 | Initial Delay | 0.1ms – 400.0ms | 0 – 127 | Table #7 | |
| 3 | Fine 1 | -50cent – 0cent – +50cent | 14 – 64 – 114 | | |
| 4 | Fine 2 | -50cent – 0cent – +50cent | 14 – 64 – 114 | | |
| 5 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Pan 1 | L63 – C – R63 | 1 – 64 – 127 | | |
| 12 | Output Level 1 | 0 – 127 | 0 – 127 | | |
| 13 | Pan 2 | L63 – C – R63 | 1 – 64 – 127 | | |
| 14 | Output Level 2 | 0 – 127 | 0 – 127 | | |
| 15 | | | | | |
| 16 | | | | | |

## WAH AUTO

**AUTO WAH1, AUTO WAH2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | Cutoff Frequency Offset | 0 – 127 | 0 – 127 | | ● |
| 4 | Resonance | 1.0 – 12.0 | 10 – 120 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | Drive | 0 – 127 | 0 – 127 | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**AT.WAH+DST1, 2, AT.WH+DST HD, AT.WH+DST HV, AT.WH+DST LT**
**AT.WAH+OD1, 2, AT.WH+OD HD, AT.WH+OD HV, AT.WH+OD LT**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | Cutoff Frequency Offset | 0 – 127 | 0 – 127 | | ● |
| 4 | Resonance | 1.0 – 12.0 | 10 – 120 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | Drive | 0 – 127 | 0 – 127 | | |
| 12 | EQ Low Gain (distortion) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Gain (distortion) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 14 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 15 | Output Level | 0 – 127 | 0 – 127 | | |
| 16 | | | | | |

**TEMPO AT.WAH**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Freq | 16th – 4thx16 | 5 – 29 | Table #13 | |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | Cutoff Frequency Offset | 0 – 127 | 0 – 127 | | ● |
| 4 | Resonance | 1.0 – 12.0 | 10 – 120 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | Drive | 0 – 127 | 0 – 127 | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**T_AT.WH+DST, T_A.WH+DSTHD, T_A.WH+DSTHV, T_A.WH+DSTLT**
**T_AT.WH+OD, T_A.WH+OD HD, T_A.WH+OD HV, T_A.WH+OD LT**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Freq | 16th – 4thx16 | 5 – 29 | Table #13 | |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | Cutoff Frequency Offset | 0 – 127 | 0 – 127 | | ● |
| 4 | Resonance | 1.0 – 12.0 | 10 – 120 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | Drive | 0 – 127 | 0 – 127 | | |
| 12 | EQ Low Gain (distortion) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Gain (distortion) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 14 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 15 | Output Level | 0 – 127 | 0 – 127 | | |
| 16 | | | | | |

## WAH TCH/PDL

**TOUCH WAH1, TC.WH+DST1, TC.WH+DST2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Sensitivity | 0 – 127 | 0 – 127 | | |
| 2 | Cutoff Frequency Offset | 0 – 127 | 0 – 127 | | ● |
| 3 | Resonance | 1.0 – 12.0 | 10 – 120 | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | Drive | 0 – 127 | 0 – 127 | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**TOUCH WAH2, TOUCH WAH3, TC.WH+DST HD, TC.WH+DST HV,**
**TC.WH+DST LT, TC.WH+OD1, 2, TC.WH+OD HD, TC.WH+OD HV,**
**TC.WH+OD LT, CLAVI TC.WAH, EP TC.WAH**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Sensitivity | 0 – 127 | 0 – 127 | | |
| 2 | Cutoff Frequency Offset | 0 – 127 | 0 – 127 | | ● |
| 3 | Resonance | 1.0 – 12.0 | 10 – 120 | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | Drive | 0 – 127 | 0 – 127 | | |
| 12 | EQ Low Gain (distortion) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Gain (distortion) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 14 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 15 | Output Level | 0 – 127 | 0 – 127 | | |
| 16 | Release | 10ms – 680ms | 52 – 67 | Table #12 | |

**WH+DST+DLY1, WH+DST+DLY2, WH+OD+DLY1, WH+OD+DLY2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Delay Time | 0.1ms – 1638.3ms | 1 – 16383 | | |
| 2 | Delay Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 3 | Delay Mix | 0 – 127 | 0 – 127 | | |
| 4 | Dist Drive | 0 – 127 | 0 – 127 | | |
| 5 | Dist Output Level | 0 – 127 | 0 – 127 | | |
| 6 | Dist EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 7 | Dist EQ Mid Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Wah Sensitivity | 0 – 127 | 0 – 127 | | |
| 12 | Wah Cutoff Freq Offset | 0 – 127 | 0 – 127 | | |
| 13 | Wah Resonance | 1.0 – 12.0 | 10 – 120 | | |
| 14 | Wah Release | 10ms – 680ms | 52 – 67 | Table #12 | |
| 15 | | | | | |
| 16 | | | | | |

**WH+DST+TDLY, WH+OD+TDLY1, WH+OD+TDLY2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Delay Time | 64th/3 – 4thx6 | 0 – 19 | Table #13 | |
| 2 | Delay Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 3 | Delay Mix | 0 – 127 | 0 – 127 | | |
| 4 | Dist Drive | 0 – 127 | 0 – 127 | | |
| 5 | Dist Output Level | 0 – 127 | 0 – 127 | | |
| 6 | Dist EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 7 | Dist EQ Mid Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | L/R Diffusion | -63ms – 0ms – 63ms | 1 – 64 – 127 | | |
| 9 | Lag | -63ms – 0ms – 63ms | 1 – 64 – 127 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | Wah Sensitivity | 0 – 127 | 0 – 127 | | |
| 12 | Wah Cutoff Freq Offset | 0 – 127 | 0 – 127 | | |
| 13 | Wah Resonance | 1.0 – 12.0 | 10 – 120 | | |
| 14 | Wah Release | 10ms – 680ms | 52 – 67 | Table #12 | |
| 15 | | | | | |
| 16 | | | | | |

**PEDAL WAH**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Pedal Control | 0 – 127 | 0 – 127 | | ● |
| 2 | Depth | 0 – 127 | 0 – 127 | | |
| 3 | Cutoff Frequency Offset | 0 – 127 | 0 – 127 | | |
| 4 | Resonance | 1.0 – 12.0 | 10 – 120 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | Drive | 0 – 127 | 0 – 127 | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**PEDAL WH+DST, P.WH+DIST HD, P.WH+DIST HV, P.WH+DIST LT**
**PEDAL WH+OD, P.WH+OD HD, P.WH+OD HV, P.WH+OD LT**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Pedal Control | 0 – 127 | 0 – 127 | | ● |
| 2 | Depth | 0 – 127 | 0 – 127 | | |
| 3 | Cutoff Frequency Offset | 0 – 127 | 0 – 127 | | |
| 4 | Resonance | 1.0 – 12.0 | 10 – 120 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | Drive | 0 – 127 | 0 – 127 | | |
| 12 | EQ Low Gain (distortion) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Gain (distortion) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 14 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 15 | Output Level | 0 – 127 | 0 – 127 | | |
| 16 | | | | | |

# DYNAMIC

### COMP MED, COMP HEAVY, COMPRESSOR

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Attack | 1ms – 40ms | 0 – 19 | Table #8 | |
| 2 | Release | 10ms – 680ms | 0 – 15 | Table #9 | |
| 3 | Threshold | -48dB – -6dB | 79 – 121 | | |
| 4 | Ratio | 1.0 – 20.0 | 0 – 7 | Table #10 | |
| 5 | Output Level | 0 – 127 | 0 – 127 | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

### COMP MELODY, COMP BASS, MBAND COMP

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Type | Normal, Low, Mid, High, Low/High, Low/Mid, Mid/ High, Full Bit, Wild, Attacky, Low End, Hard, Basic | 0 – 12 | | |
| 2 | Threshold Offset | -32 – +32 | 32 – 96 | | ● |
| 3 | Low Gain Offset | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 4 | Mid Gain Offset | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 5 | High Gain Offset | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

### NOISE GATE

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Attack | 1ms – 40ms | 0 – 19 | Table #8 | |
| 2 | Release | 10ms – 680ms | 0 – 15 | Table #9 | |
| 3 | Threshold | -72dB – -30dB | 55 – 97 | | |
| 4 | Output Level | 0 – 127 | 0 – 127 | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

# ROTARY SP

### DUAL ROT BRT, DUAL ROT WRM, DUAL ROT SP1, 2

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Rotor Speed Slow | 0.00Hz – 2.65Hz | 0 – 63 | Table #1 | |
| 2 | Horn Speed Slow | 0.00Hz – 2.65Hz | 0 – 63 | Table #1 | |
| 3 | Rotor Speed Fast | 2.69Hz – 39.7Hz | 64 – 127 | Table #1 | |
| 4 | Horn Speed Fast | 2.69Hz – 39.7Hz | 64 – 127 | Table #1 | |
| 5 | Slow-Fast Time of R | 0 – 127 | 0 – 127 | | |
| 6 | Slow-Fast Time of H | 0 – 127 | 0 – 127 | | |
| 7 | Drive Low | 0 – 127 | 0 – 127 | | |
| 8 | Drive High | 0 – 127 | 0 – 127 | | |
| 9 | Low/High Balance | L63>H – L=H – L<H63 | 1 – 64 – 127 | | |
| 10 | | | | | |
| 11 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 12 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 14 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 15 | Mic L-R Angle | 0deg – 180deg | 0 – 60 | | |
| 16 | Speed Control | Slow, Fast | 0 – 1 | | ● |

### ROTARY SP1, ROTARY SP6

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | ● |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

### ROTARY SP2, 3, 7

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | ● |
| 2 | L/R Depth | 0 – 127 | 0 – 127 | | |
| 3 | F/R Depth | 0 – 127 | 0 – 127 | | |
| 4 | PAN Direction | L<->R, L->R, L<-R, Lturn, Rturn, L/R | 0 – 5 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | | | | | |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

### ROTARY SP4

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | ● |
| 2 | AM Depth | 0 – 127 | 0 – 127 | | |
| 3 | PM Depth | 0 – 127 | 0 – 127 | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | | | | | |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | LFO Phase Difference | -180deg – 0deg – +180deg | 4 – 64 – 124 | resolution =3deg. | |
| 15 | Input Mode | mono, stereo | 0 – 1 | | |
| 16 | | | | | |

### ROTARY SP5

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | Feedback Level | -63 – 0 – +63 | 1 – 64 – 127 | | |
| 4 | Delay Offset | 0.0ms – 50ms | 0 – 127 | Table #2 | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | | | | | |
| 15 | Input Mode | mono, stereo | 0 – 1 | | |
| 16 | | | | | |

**2WAY ROT SP**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Rotor Speed | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | ● |
| 2 | Drive Low | 0 – 127 | 0 – 127 | | |
| 3 | Drive High | 0 – 127 | 0 – 127 | | |
| 4 | Low/High | L63>H – L=H – L<H63 | 1 – 64 – 127 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | | | | | |
| 11 | Crossover Frequency | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | Mic L-R Angle | 0deg – 180deg | 0 – 60 | resolution =3deg. | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**DST+ROT SP, OD+ROT SP**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | ● |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | Drive | 0 – 127 | 0 – 127 | | |
| 15 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 16 | Output Level | 0 – 127 | 0 – 127 | | |

**DST+2ROT SP, OD+2ROT SP**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Rotor Speed | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | ● |
| 2 | Drive Low | 0 – 127 | 0 – 127 | | |
| 3 | Drive High | 0 – 127 | 0 – 127 | | |
| 4 | Low/High Balance | L63>H – L=H – L<H63 | 1 – 64 – 127 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | | | | | |
| 11 | Crossover Frequency | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | Mic L-R Angle | 0deg – 180deg | 0 – 60 | | |
| 13 | | | | | |
| 14 | Drive | 0 – 127 | 0 – 127 | | |
| 15 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 16 | Output Level | 0 – 127 | 0 – 127 | | |

**AMP+ROT SP**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | ● |
| 2 | LFO Depth | 0 – 127 | 0 – 127 | | |
| 3 | AMP Type | Off, Stack, Combo, Tube | 0 – 3 | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | Drive | 0 – 127 | 0 – 127 | | |
| 15 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 16 | Output Level | 0 – 127 | 0 – 127 | | |

**AMP+2ROT SP**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Rotor Speed | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | ● |
| 2 | Drive Low | 0 – 127 | 0 – 127 | | |
| 3 | Drive High | 0 – 127 | 0 – 127 | | |
| 4 | Low/High Balance | L63>H – L=H – L<H63 | 1 – 64 – 127 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | | | | | |
| 11 | Crossover Frequency | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | Mic L-R Angle | 0deg – 180deg | 0 – 60 | | |
| 13 | AMP Type | Off, Stack, Combo, Tube (AMPSIM only) | 0 – 3 | | |
| 14 | Drive | 0 – 127 | 0 – 127 | | |
| 15 | LPF Cutoff | 1.0kHz – 18kHz, Thru | 34 – 59, 60 | Table #3 | |
| 16 | Output Level | 0 – 127 | 0 – 127 | | |

## TREMOLO

**TREMOLO1, TREMOLO3, EP TREMOLO, GT TREMOLO2**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | ● |
| 2 | AM Depth | 0 – 127 | 0 – 127 | | |
| 3 | PM Depth | 0 – 127 | 0 – 127 | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | | | | | |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | LFO Phase Difference | -180deg – 0deg – +180deg | 4 – 64 – 124 | resolution =3deg. | |
| 15 | Input Mode | mono, stereo | 0 – 1 | | |
| 16 | | | | | |

**TREMOLO2, GT TREMOLO1**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | ● |
| 2 | L/R Depth | 0 – 127 | 0 – 127 | | |
| 3 | F/R Depth | 0 – 127 | 0 – 127 | | |
| 4 | PAN Direction | L<->R, L->R, L<-R, Lturn, Rturn, L/R | 0 – 5 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | | | | | |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

**VIBE VIBRATE**

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Vibrate Speed | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | |
| 2 | Vibrate Depth (AM) | 0 – 127 | 0 – 127 | | |
| 3 | Vibrate Depth (PM) | 0 – 127 | 0 – 127 | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet Balance | D63>W – D=W – D<W63 | 1 – 64 – 127 | | |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | LFO Phase Difference | -180deg – 0deg – +180deg | 4 – 64 – 124 | resolution =3deg. | |
| 15 | Input Mode | mono, stereo | 0 – 1 | | |
| 16 | Vibrate SW | Off, On | 0 – 1 | | ● |

### T_TREMOLO

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Freq | 16th – 4thx16 | 5 – 29 | Table #13 | ● |
| 2 | AM Depth | 0 – 127 | 0 – 127 | | |
| 3 | PM Depth | 0 – 127 | 0 – 127 | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | | | | | |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | LFO Phase Difference | -180deg – 0deg – +180deg | 4 – 64 – 124 | resolution =3deg. | |
| 15 | Input Mode | mono, stereo | 0 – 1 | | |
| 16 | | | | | |

### T_AUTO PAN2

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Freq | 16th – 4thx16 | 5 – 29 | Table #13 | ● |
| 2 | L/R Depth | 0 – 127 | 0 – 127 | | |
| 3 | F/R Depth | 0 – 127 | 0 – 127 | | |
| 4 | PAN Direction | L<->R, L->R, L<-R, Lturn, Rturn, L/R | 0 – 5 | | |
| 5 | LFO Wave | 0 – 28 | 0 – 28 | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | | | | | |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | | | | | |
| 15 | Input Mode | mono, stereo | 0 – 1 | | |
| 16 | | | | | |

## SPATIAL

### AUTO PAN1, AUTO PAN2, EP AUTO PAN

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | ● |
| 2 | L/R Depth | 0 – 127 | 0 – 127 | | |
| 3 | F/R Depth | 0 – 127 | 0 – 127 | | |
| 4 | PAN Direction | L<->R, L->R, L<-R, Lturn, Rturn, L/R | 0 – 5 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | | | | | |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

### AUTO PAN3

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Frequency | 0.00Hz – 39.7Hz | 0 – 127 | Table #1 | ● |
| 2 | L/R Depth | 0 – 127 | 0 – 127 | | |
| 3 | F/R Depth | 0 – 127 | 0 – 127 | | |
| 4 | PAN Direction | L<->R, L->R, L<-R, Lturn, Rturn, L/R | 0 – 5 | | |
| 5 | LFO Wave | 0 – 28 | 0 – 28 | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | | | | | |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | | | | | |
| 15 | Input Mode | mono, stereo | 0 – 1 | | |
| 16 | | | | | |

### T_AUTO PAN1

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | LFO Freq | 16th – 4thx16 | 5 – 29 | Table #13 | ● |
| 2 | L/R Depth | 0 – 127 | 0 – 127 | | |
| 3 | F/R Depth | 0 – 127 | 0 – 127 | | |
| 4 | PAN Direction | L<->R, L->R, L<-R, Lturn, Rturn, L/R | 0 – 5 | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | | | | | |
| 11 | EQ Mid Frequency (*3) | 100Hz – 10.0kHz | 14 – 54 | Table #3 | |
| 12 | EQ Mid Gain (*3) | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 13 | EQ Mid Width (*3) | 0.1 – 12.0 | 1 – 120 | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

## EQ/ENHANCER

### EQ DISCO, EQ TEL, 3BAND EQ, ST 3BAND EQ

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 2 | EQ Mid Frequency | 100Hz – 16.0kHz | 14 – 58 | Table #3 | |
| 3 | EQ Mid Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 4 | EQ Mid Width | 0.1 – 12.0 | 1 – 120 | | |
| 5 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 6 | EQ Low Frequency | 50Hz – 2.0kHz | 8 – 40 | Table #3 | |
| 7 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | Input Mode | mono, stereo | 0 – 1 | | |
| 16 | | | | | |

### 2BAND EQ

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 2 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 3 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 4 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

### HM ENHANCE1, HM ENHANCE2

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | HPF Cutoff | 500Hz – 16.0kHz | 28 – 58 | | |
| 2 | Drive | 0 – 127 | 0 – 127 | | |
| 3 | Mix Level | 0 – 127 | 0 – 127 | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

# MISC

### VCE CANCEL

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | Low Adjust | 0 – 26 | 0 – 26 | | |
| 12 | High Adjust | 0 – 26 | 0 – 26 | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

### AMBIENCE

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Delay Time | 0.0ms – 50ms | 0 – 127 | Table #2 | |
| 2 | Output Phase | normal, inverse | 0 – 1 | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | EQ Low Frequency | 32Hz – 2.0kHz | 4 – 40 | Table #3 | |
| 7 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 8 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 9 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 10 | Dry/Wet | D63>W – D=W – D<W63 | 1 – 64 – 127 | | ● |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

### TALKING MOD

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | Vowel | a, i, u, e, o | 0 – 4 | | ● |
| 2 | Move speed | 1 – 62 | 1 – 62 | | |
| 3 | Drive | 0 – 127 | 0 – 127 | | |
| 4 | Output Level | 0 – 127 | 0 – 127 | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

### LO-FI DRUM3, LO-FI DRUM4

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | EQ Low Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 2 | EQ Mid Frequency | 100Hz – 16.0kHz | 14 – 58 | Table #3 | |
| 3 | EQ Mid Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 4 | EQ Mid Width | 0.1 – 12.0 | 1 – 120 | | |
| 5 | EQ High Gain | -12dB – 0dB – +12dB | 52 – 64 – 76 | | |
| 6 | EQ Low Frequency | 50Hz – 2.0kHz | 8 – 40 | Table #3 | |
| 7 | EQ High Frequency | 500Hz – 16.0kHz | 28 – 58 | Table #3 | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | Input Mode | mono, stereo | 0 – 1 | | |
| 16 | | | | | |

### ISOLATOR

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | On/off SW | Off, On | 0 – 1 | | ● |
| 2 | Low Level | 0 – 127 | 0 – 127 | | |
| 3 | Mid Level | 0 – 127 | 0 – 127 | | |
| 4 | High Level | 0 – 127 | 0 – 127 | | |
| 5 | Low Mute | Off, On | 0 – 1 | | |
| 6 | Mid Mute | Off, On | 0 – 1 | | |
| 7 | High Mute | Off, On | 0 – 1 | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

# NO EFFECT

### NO EFFECT

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

# THRU

### THRU

| No. | Parameter | Display | Value | See Table | Control |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |
| 16 | | | | | |

# Effect Data Assign Table / Effektdaten-Zuordnungstabelle / Tableau d'assignation des données d'effets / Tabla de asignación de datos para efectos

**Table #1**
**LFO Frequency**

| Data | Value | Data | Value |
|---|---|---|---|
| 0 | 0.00 | 64 | 2.69 |
| 1 | 0.04 | 65 | 2.78 |
| 2 | 0.08 | 66 | 2.86 |
| 3 | 0.13 | 67 | 2.94 |
| 4 | 0.17 | 68 | 3.03 |
| 5 | 0.21 | 69 | 3.11 |
| 6 | 0.25 | 70 | 3.20 |
| 7 | 0.29 | 71 | 3.28 |
| 8 | 0.34 | 72 | 3.37 |
| 9 | 0.38 | 73 | 3.45 |
| 10 | 0.42 | 74 | 3.53 |
| 11 | 0.46 | 75 | 3.62 |
| 12 | 0.51 | 76 | 3.70 |
| 13 | 0.55 | 77 | 3.87 |
| 14 | 0.59 | 78 | 4.04 |
| 15 | 0.63 | 79 | 4.21 |
| 16 | 0.67 | 80 | 4.37 |
| 17 | 0.72 | 81 | 4.54 |
| 18 | 0.76 | 82 | 4.71 |
| 19 | 0.80 | 83 | 4.88 |
| 20 | 0.84 | 84 | 5.05 |
| 21 | 0.88 | 85 | 5.22 |
| 22 | 0.93 | 86 | 5.38 |
| 23 | 0.97 | 87 | 5.55 |
| 24 | 1.01 | 88 | 5.72 |
| 25 | 1.05 | 89 | 6.06 |
| 26 | 1.09 | 90 | 6.39 |
| 27 | 1.14 | 91 | 6.73 |
| 28 | 1.18 | 92 | 7.07 |
| 29 | 1.22 | 93 | 7.40 |
| 30 | 1.26 | 94 | 7.74 |
| 31 | 1.30 | 95 | 8.08 |
| 32 | 1.35 | 96 | 8.41 |
| 33 | 1.39 | 97 | 8.75 |
| 34 | 1.43 | 98 | 9.08 |
| 35 | 1.47 | 99 | 9.42 |
| 36 | 1.51 | 100 | 9.76 |
| 37 | 1.56 | 101 | 10.1 |
| 38 | 1.60 | 102 | 10.8 |
| 39 | 1.64 | 103 | 11.4 |
| 40 | 1.68 | 104 | 12.1 |
| 41 | 1.72 | 105 | 12.8 |
| 42 | 1.77 | 106 | 13.5 |
| 43 | 1.81 | 107 | 14.1 |
| 44 | 1.85 | 108 | 14.8 |
| 45 | 1.89 | 109 | 15.5 |
| 46 | 1.94 | 110 | 16.2 |
| 47 | 1.98 | 111 | 16.8 |
| 48 | 2.02 | 112 | 17.5 |
| 49 | 2.06 | 113 | 18.2 |
| 50 | 2.10 | 114 | 19.5 |
| 51 | 2.15 | 115 | 20.9 |
| 52 | 2.19 | 116 | 22.2 |
| 53 | 2.23 | 117 | 23.6 |
| 54 | 2.27 | 118 | 24.9 |
| 55 | 2.31 | 119 | 26.2 |
| 56 | 2.36 | 120 | 27.6 |
| 57 | 2.40 | 121 | 28.9 |
| 58 | 2.44 | 122 | 30.3 |
| 59 | 2.48 | 123 | 31.6 |
| 60 | 2.52 | 124 | 33.0 |
| 61 | 2.57 | 125 | 34.3 |
| 62 | 2.61 | 126 | 37.0 |
| 63 | 2.65 | 127 | 39.7 |

**Table #2**
**Modulation Delay Offset**

| Data | Value | Data | Value |
|---|---|---|---|
| 0 | 0.0 | 64 | 6.4 |
| 1 | 0.1 | 65 | 6.5 |
| 2 | 0.2 | 66 | 6.6 |
| 3 | 0.3 | 67 | 6.7 |
| 4 | 0.4 | 68 | 6.8 |
| 5 | 0.5 | 69 | 6.9 |
| 6 | 0.6 | 70 | 7.0 |
| 7 | 0.7 | 71 | 7.1 |
| 8 | 0.8 | 72 | 7.2 |
| 9 | 0.9 | 73 | 7.3 |
| 10 | 1.0 | 74 | 7.4 |
| 11 | 1.1 | 75 | 7.5 |
| 12 | 1.2 | 76 | 7.6 |
| 13 | 1.3 | 77 | 7.7 |
| 14 | 1.4 | 78 | 7.8 |
| 15 | 1.5 | 79 | 7.9 |
| 16 | 1.6 | 80 | 8.0 |
| 17 | 1.7 | 81 | 8.1 |
| 18 | 1.8 | 82 | 8.2 |
| 19 | 1.9 | 83 | 8.3 |
| 20 | 2.0 | 84 | 8.4 |
| 21 | 2.1 | 85 | 8.5 |
| 22 | 2.2 | 86 | 8.6 |
| 23 | 2.3 | 87 | 8.7 |
| 24 | 2.4 | 88 | 8.8 |
| 25 | 2.5 | 89 | 8.9 |
| 26 | 2.6 | 90 | 9.0 |
| 27 | 2.7 | 91 | 9.1 |
| 28 | 2.8 | 92 | 9.2 |
| 29 | 2.9 | 93 | 9.3 |
| 30 | 3.0 | 94 | 9.4 |
| 31 | 3.1 | 95 | 9.5 |
| 32 | 3.2 | 96 | 9.6 |
| 33 | 3.3 | 97 | 9.7 |
| 34 | 3.4 | 98 | 9.8 |
| 35 | 3.5 | 99 | 9.9 |
| 36 | 3.6 | 100 | 10.0 |
| 37 | 3.7 | 101 | 11.1 |
| 38 | 3.8 | 102 | 12.2 |
| 39 | 3.9 | 103 | 13.3 |
| 40 | 4.0 | 104 | 14.4 |
| 41 | 4.1 | 105 | 15.5 |
| 42 | 4.2 | 106 | 17.1 |
| 43 | 4.3 | 107 | 18.6 |
| 44 | 4.4 | 108 | 20.2 |
| 45 | 4.5 | 109 | 21.8 |
| 46 | 4.6 | 110 | 23.3 |
| 47 | 4.7 | 111 | 24.9 |
| 48 | 4.8 | 112 | 26.5 |
| 49 | 4.9 | 113 | 28.0 |
| 50 | 5.0 | 114 | 29.6 |
| 51 | 5.1 | 115 | 31.2 |
| 52 | 5.2 | 116 | 32.8 |
| 53 | 5.3 | 117 | 34.3 |
| 54 | 5.4 | 118 | 35.9 |
| 55 | 5.5 | 119 | 37.5 |
| 56 | 5.6 | 120 | 39.0 |
| 57 | 5.7 | 121 | 40.6 |
| 58 | 5.8 | 122 | 42.2 |
| 59 | 5.9 | 123 | 43.7 |
| 60 | 6.0 | 124 | 45.3 |
| 61 | 6.1 | 125 | 46.9 |
| 62 | 6.2 | 126 | 48.4 |
| 63 | 6.3 | 127 | 50.0 |

**Table #3**
**EQ Frequency**

| Data | Value | Data | Value |
|---|---|---|---|
| 0 | THRU (20) | 31 | 700 |
| 1 | 22 | 32 | 800 |
| 2 | 25 | 33 | 900 |
| 3 | 28 | 34 | 1.0k |
| 4 | 32 | 35 | 1.1k |
| 5 | 36 | 36 | 1.2k |
| 6 | 40 | 37 | 1.4k |
| 7 | 45 | 38 | 1.6k |
| 8 | 50 | 39 | 1.8k |
| 9 | 56 | 40 | 2.0k |
| 10 | 63 | 41 | 2.2k |
| 11 | 70 | 42 | 2.5k |
| 12 | 80 | 43 | 2.8k |
| 13 | 90 | 44 | 3.2k |
| 14 | 100 | 45 | 3.6k |
| 15 | 110 | 46 | 4.0k |
| 16 | 125 | 47 | 4.5k |
| 17 | 140 | 48 | 5.0k |
| 18 | 160 | 49 | 5.6k |
| 19 | 180 | 50 | 6.3k |
| 20 | 200 | 51 | 7.0k |
| 21 | 225 | 52 | 8.0k |
| 22 | 250 | 53 | 9.0k |
| 23 | 280 | 54 | 10.0k |
| 24 | 315 | 55 | 11.0k |
| 25 | 355 | 56 | 12.0k |
| 26 | 400 | 57 | 14.0k |
| 27 | 450 | 58 | 16.0k |
| 28 | 500 | 59 | 18.0k |
| 29 | 560 | 60 | THRU (20.0k) |
| 30 | 630 | | |

**Table #4**
**Reverb Time**

| Data | Value | Data | Value |
|---|---|---|---|
| 0 | 0.3 | 35 | 3.8 |
| 1 | 0.4 | 36 | 3.9 |
| 2 | 0.5 | 37 | 4.0 |
| 3 | 0.6 | 38 | 4.1 |
| 4 | 0.7 | 39 | 4.2 |
| 5 | 0.8 | 40 | 4.3 |
| 6 | 0.9 | 41 | 4.4 |
| 7 | 1.0 | 42 | 4.5 |
| 8 | 1.1 | 43 | 4.6 |
| 9 | 1.2 | 44 | 4.7 |
| 10 | 1.3 | 45 | 4.8 |
| 11 | 1.4 | 46 | 4.9 |
| 12 | 1.5 | 47 | 5.0 |
| 13 | 1.6 | 48 | 5.5 |
| 14 | 1.7 | 49 | 6.0 |
| 15 | 1.8 | 50 | 6.5 |
| 16 | 1.9 | 51 | 7.0 |
| 17 | 2.0 | 52 | 7.5 |
| 18 | 2.1 | 53 | 8.0 |
| 19 | 2.2 | 54 | 8.5 |
| 20 | 2.3 | 55 | 9.0 |
| 21 | 2.4 | 56 | 9.5 |
| 22 | 2.5 | 57 | 10.0 |
| 23 | 2.6 | 58 | 11.0 |
| 24 | 2.7 | 59 | 12.0 |
| 25 | 2.8 | 60 | 13.0 |
| 26 | 2.9 | 61 | 14.0 |
| 27 | 3.0 | 62 | 15.0 |
| 28 | 3.1 | 63 | 16.0 |
| 29 | 3.2 | 64 | 17.0 |
| 30 | 3.3 | 65 | 18.0 |
| 31 | 3.4 | 66 | 19.0 |
| 32 | 3.5 | 67 | 20.0 |
| 33 | 3.6 | 68 | 25.0 |
| 34 | 3.7 | 69 | 30.0 |

**Table #5**
**Delay Time (0.1 – 200.0 [ms])**

| Data | Value | Data | Value |
|---|---|---|---|
| 0 | 0.1 | 64 | 100.8 |
| 1 | 1.7 | 65 | 102.4 |
| 2 | 3.2 | 66 | 104.0 |
| 3 | 4.8 | 67 | 105.6 |
| 4 | 6.4 | 68 | 107.1 |
| 5 | 8.0 | 69 | 108.7 |
| 6 | 9.5 | 70 | 110.3 |
| 7 | 11.1 | 71 | 111.9 |
| 8 | 12.7 | 72 | 113.4 |
| 9 | 14.3 | 73 | 115.0 |
| 10 | 15.8 | 74 | 116.6 |
| 11 | 17.4 | 75 | 118.2 |
| 12 | 19.0 | 76 | 119.7 |
| 13 | 20.6 | 77 | 121.3 |
| 14 | 22.1 | 78 | 122.9 |
| 15 | 23.7 | 79 | 124.4 |
| 16 | 25.3 | 80 | 126.0 |
| 17 | 26.9 | 81 | 127.6 |
| 18 | 28.4 | 82 | 129.2 |
| 19 | 30.0 | 83 | 130.7 |
| 20 | 31.6 | 84 | 132.3 |
| 21 | 33.2 | 85 | 133.9 |
| 22 | 34.7 | 86 | 135.5 |
| 23 | 36.3 | 87 | 137.0 |
| 24 | 37.9 | 88 | 138.6 |
| 25 | 39.5 | 89 | 140.2 |
| 26 | 41.0 | 90 | 141.8 |
| 27 | 42.6 | 91 | 143.3 |
| 28 | 44.2 | 92 | 144.9 |
| 29 | 45.7 | 93 | 146.5 |
| 30 | 47.3 | 94 | 148.1 |
| 31 | 48.9 | 95 | 149.6 |
| 32 | 50.5 | 96 | 151.2 |
| 33 | 52.0 | 97 | 152.8 |
| 34 | 53.6 | 98 | 154.4 |
| 35 | 55.2 | 99 | 155.9 |
| 36 | 56.8 | 100 | 157.5 |
| 37 | 58.3 | 101 | 159.1 |
| 38 | 59.9 | 102 | 160.6 |
| 39 | 61.5 | 103 | 162.2 |
| 40 | 63.1 | 104 | 163.8 |
| 41 | 64.6 | 105 | 165.4 |
| 42 | 66.2 | 106 | 166.9 |
| 43 | 67.8 | 107 | 168.5 |
| 44 | 69.4 | 108 | 170.1 |
| 45 | 70.9 | 109 | 171.7 |
| 46 | 72.5 | 110 | 173.2 |
| 47 | 74.1 | 111 | 174.8 |
| 48 | 75.7 | 112 | 176.4 |
| 49 | 77.2 | 113 | 178.0 |
| 50 | 78.8 | 114 | 179.5 |
| 51 | 80.4 | 115 | 181.1 |
| 52 | 81.9 | 116 | 182.7 |
| 53 | 83.5 | 117 | 184.3 |
| 54 | 85.1 | 118 | 185.8 |
| 55 | 86.7 | 119 | 187.4 |
| 56 | 88.2 | 120 | 189.0 |
| 57 | 89.8 | 121 | 190.6 |
| 58 | 91.4 | 122 | 192.1 |
| 59 | 93.0 | 123 | 193.7 |
| 60 | 94.5 | 124 | 195.3 |
| 61 | 96.1 | 125 | 196.9 |
| 62 | 97.7 | 126 | 198.4 |
| 63 | 99.3 | 127 | 200.0 |

**Table #6**
**Room Size**

| Data | Value | Data | Value |
|---|---|---|---|
| 0 | 0.1 | 64 | 10.1 |
| 1 | 0.3 | 65 | 10.3 |
| 2 | 0.4 | 66 | 10.4 |
| 3 | 0.6 | 67 | 10.6 |
| 4 | 0.7 | 68 | 10.8 |
| 5 | 0.9 | 69 | 10.9 |
| 6 | 1.0 | 70 | 11.1 |
| 7 | 1.2 | 71 | 11.2 |
| 8 | 1.4 | 72 | 11.4 |
| 9 | 1.5 | 73 | 11.5 |
| 10 | 1.7 | 74 | 11.7 |
| 11 | 1.8 | 75 | 11.9 |
| 12 | 2.0 | 76 | 12.0 |
| 13 | 2.1 | 77 | 12.2 |
| 14 | 2.3 | 78 | 12.3 |
| 15 | 2.5 | 79 | 12.5 |
| 16 | 2.6 | 80 | 12.6 |
| 17 | 2.8 | 81 | 12.8 |
| 18 | 2.9 | 82 | 12.9 |
| 19 | 3.1 | 83 | 13.1 |
| 20 | 3.2 | 84 | 13.3 |
| 21 | 3.4 | 85 | 13.4 |
| 22 | 3.5 | 86 | 13.6 |
| 23 | 3.7 | 87 | 13.7 |
| 24 | 3.9 | 88 | 13.9 |
| 25 | 4.0 | 89 | 14.0 |
| 26 | 4.2 | 90 | 14.2 |
| 27 | 4.3 | 91 | 14.4 |
| 28 | 4.5 | 92 | 14.5 |
| 29 | 4.6 | 93 | 14.7 |
| 30 | 4.8 | 94 | 14.8 |
| 31 | 5.0 | 95 | 15.0 |
| 32 | 5.1 | 96 | 15.1 |
| 33 | 5.3 | 97 | 15.3 |
| 34 | 5.4 | 98 | 15.5 |
| 35 | 5.6 | 99 | 15.6 |
| 36 | 5.7 | 100 | 15.8 |
| 37 | 5.9 | 101 | 15.9 |
| 38 | 6.1 | 102 | 16.1 |
| 39 | 6.2 | 103 | 16.2 |
| 40 | 6.4 | 104 | 16.4 |
| 41 | 6.5 | 105 | 16.6 |
| 42 | 6.7 | 106 | 16.7 |
| 43 | 6.8 | 107 | 16.9 |
| 44 | 7.0 | 108 | 17.0 |
| 45 | 7.2 | 109 | 17.2 |
| 46 | 7.3 | 110 | 17.3 |
| 47 | 7.5 | 111 | 17.5 |
| 48 | 7.6 | 112 | 17.6 |
| 49 | 7.8 | 113 | 17.8 |
| 50 | 7.9 | 114 | 18.0 |
| 51 | 8.1 | 115 | 18.1 |
| 52 | 8.2 | 116 | 18.3 |
| 53 | 8.4 | 117 | 18.4 |
| 54 | 8.6 | 118 | 18.6 |
| 55 | 8.7 | 119 | 18.7 |
| 56 | 8.9 | 120 | 18.9 |
| 57 | 9.0 | 121 | 19.1 |
| 58 | 9.2 | 122 | 19.2 |
| 59 | 9.3 | 123 | 19.4 |
| 60 | 9.5 | 124 | 19.5 |
| 61 | 9.7 | 125 | 19.7 |
| 62 | 9.8 | 126 | 19.8 |
| 63 | 10.0 | 127 | 20.0 |

**Table #7**
**Delay Time (0.1 – 400.0 [ms])**

| Data | Value | Data | Value |
|---|---|---|---|
| 0 | 0.1 | 64 | 201.6 |
| 1 | 3.2 | 65 | 204.8 |
| 2 | 6.4 | 66 | 207.9 |
| 3 | 9.5 | 67 | 211.1 |
| 4 | 12.7 | 68 | 214.2 |
| 5 | 15.8 | 69 | 217.4 |
| 6 | 19.0 | 70 | 220.5 |
| 7 | 22.1 | 71 | 223.7 |
| 8 | 25.3 | 72 | 226.8 |
| 9 | 28.4 | 73 | 230.0 |
| 10 | 31.6 | 74 | 233.1 |
| 11 | 34.7 | 75 | 236.3 |
| 12 | 37.9 | 76 | 239.4 |
| 13 | 41.0 | 77 | 242.6 |
| 14 | 44.2 | 78 | 245.7 |
| 15 | 47.3 | 79 | 248.9 |
| 16 | 50.5 | 80 | 252.0 |
| 17 | 53.6 | 81 | 255.2 |
| 18 | 56.8 | 82 | 258.3 |
| 19 | 59.9 | 83 | 261.5 |
| 20 | 63.1 | 84 | 264.6 |
| 21 | 66.2 | 85 | 267.7 |
| 22 | 69.4 | 86 | 270.9 |
| 23 | 72.5 | 87 | 274.0 |
| 24 | 75.7 | 88 | 277.2 |
| 25 | 78.8 | 89 | 280.3 |
| 26 | 82.0 | 90 | 283.5 |
| 27 | 85.1 | 91 | 286.6 |
| 28 | 88.3 | 92 | 289.8 |
| 29 | 91.4 | 93 | 292.9 |
| 30 | 94.6 | 94 | 296.1 |
| 31 | 97.7 | 95 | 299.2 |
| 32 | 100.9 | 96 | 302.4 |
| 33 | 104.0 | 97 | 305.5 |
| 34 | 107.2 | 98 | 308.7 |
| 35 | 110.3 | 99 | 311.8 |
| 36 | 113.5 | 100 | 315.0 |
| 37 | 116.6 | 101 | 318.1 |
| 38 | 119.8 | 102 | 321.3 |
| 39 | 122.9 | 103 | 324.4 |
| 40 | 126.1 | 104 | 327.6 |
| 41 | 129.2 | 105 | 330.7 |
| 42 | 132.4 | 106 | 333.9 |
| 43 | 135.5 | 107 | 337.0 |
| 44 | 138.6 | 108 | 340.2 |
| 45 | 141.8 | 109 | 343.3 |
| 46 | 144.9 | 110 | 346.5 |
| 47 | 148.1 | 111 | 349.6 |
| 48 | 151.2 | 112 | 352.8 |
| 49 | 154.4 | 113 | 355.9 |
| 50 | 157.5 | 114 | 359.1 |
| 51 | 160.7 | 115 | 362.2 |
| 52 | 163.8 | 116 | 365.4 |
| 53 | 167.0 | 117 | 368.5 |
| 54 | 170.1 | 118 | 371.7 |
| 55 | 173.3 | 119 | 374.8 |
| 56 | 176.4 | 120 | 378.0 |
| 57 | 179.6 | 121 | 381.1 |
| 58 | 182.7 | 122 | 384.3 |
| 59 | 185.9 | 123 | 387.4 |
| 60 | 189.0 | 124 | 390.6 |
| 61 | 192.2 | 125 | 393.7 |
| 62 | 195.3 | 126 | 396.9 |
| 63 | 198.5 | 127 | 400.0 |

**Table #8**
**Compressor Attack Time**

| Data | Value | Data | Value |
|---|---|---|---|
| 0 | 1 | 10 | 12 |
| 1 | 2 | 11 | 14 |
| 2 | 3 | 12 | 16 |
| 3 | 4 | 13 | 18 |
| 4 | 5 | 14 | 20 |
| 5 | 6 | 15 | 23 |
| 6 | 7 | 16 | 26 |
| 7 | 8 | 17 | 30 |
| 8 | 9 | 18 | 35 |
| 9 | 10 | 19 | 40 |

**Table #9**
**Compressor Release Time**

| Data | Value | Data | Value |
|---|---|---|---|
| 0 | 10 | 8 | 85 |
| 1 | 15 | 9 | 100 |
| 2 | 25 | 10 | 115 |
| 3 | 35 | 11 | 140 |
| 4 | 45 | 12 | 170 |
| 5 | 55 | 13 | 230 |
| 6 | 65 | 14 | 340 |
| 7 | 75 | 15 | 680 |

**Table #10**
**Compressor Ratio**

| Data | Value | Data | Value |
|---|---|---|---|
| 0 | 1.0 | 4 | 5.0 |
| 1 | 1.5 | 5 | 7.0 |
| 2 | 2.0 | 6 | 10.0 |
| 3 | 3.0 | 7 | 20.0 |

**Table #11**
**Reverb Width; Depth; Height**

| Data | Value | Data | Value |
|---|---|---|---|
| 0 | 0.5 | 53 | 14.5 |
| 1 | 0.8 | 54 | 14.8 |
| 2 | 1.0 | 55 | 15.1 |
| 3 | 1.3 | 56 | 15.4 |
| 4 | 1.5 | 57 | 15.6 |
| 5 | 1.8 | 58 | 15.9 |
| 6 | 2.0 | 59 | 16.2 |
| 7 | 2.3 | 60 | 16.5 |
| 8 | 2.6 | 61 | 16.8 |
| 9 | 2.8 | 62 | 17.1 |
| 10 | 3.1 | 63 | 17.3 |
| 11 | 3.3 | 64 | 17.6 |
| 12 | 3.6 | 65 | 17.9 |
| 13 | 3.9 | 66 | 18.2 |
| 14 | 4.1 | 67 | 18.5 |
| 15 | 4.4 | 68 | 18.8 |
| 16 | 4.6 | 69 | 19.1 |
| 17 | 4.9 | 70 | 19.4 |
| 18 | 5.2 | 71 | 19.7 |
| 19 | 5.4 | 72 | 20.0 |
| 20 | 5.7 | 73 | 20.2 |
| 21 | 5.9 | 74 | 20.5 |
| 22 | 6.2 | 75 | 20.8 |
| 23 | 6.5 | 76 | 21.1 |
| 24 | 6.7 | 77 | 21.4 |
| 25 | 7.0 | 78 | 21.7 |
| 26 | 7.2 | 79 | 22.0 |
| 27 | 7.5 | 80 | 22.4 |
| 28 | 7.8 | 81 | 22.7 |
| 29 | 8.0 | 82 | 23.0 |
| 30 | 8.3 | 83 | 23.3 |
| 31 | 8.6 | 84 | 23.6 |
| 32 | 8.8 | 85 | 23.9 |
| 33 | 9.1 | 86 | 24.2 |
| 34 | 9.4 | 87 | 24.5 |
| 35 | 9.6 | 88 | 24.9 |
| 36 | 9.9 | 89 | 25.2 |
| 37 | 10.2 | 90 | 25.5 |
| 38 | 10.4 | 91 | 25.8 |
| 39 | 10.7 | 92 | 26.1 |
| 40 | 11.0 | 93 | 26.5 |
| 41 | 11.2 | 94 | 26.8 |
| 42 | 11.5 | 95 | 27.1 |
| 43 | 11.8 | 96 | 27.5 |
| 44 | 12.1 | 97 | 27.8 |
| 45 | 12.3 | 98 | 28.1 |
| 46 | 12.6 | 99 | 28.5 |
| 47 | 12.9 | 100 | 28.8 |
| 48 | 13.1 | 101 | 29.2 |
| 49 | 13.4 | 102 | 29.5 |
| 50 | 13.7 | 103 | 29.9 |
| 51 | 14.0 | 104 | 30.2 |
| 52 | 14.2 | | |

**Table #12**
**Wah Release Time**

| Data | Value | Data | Value |
|---|---|---|---|
| 52 | 10 | 60 | 85 |
| 53 | 15 | 61 | 100 |
| 54 | 25 | 62 | 115 |
| 55 | 35 | 63 | 140 |
| 56 | 45 | 64 | 170 |
| 57 | 55 | 65 | 230 |
| 58 | 65 | 66 | 340 |
| 59 | 75 | 67 | 680 |

**Table #13**
**Tempo**

| Data | Value | Data | Value |
|---|---|---|---|
| 0 | 64th/3 | 39 | 4thX26 |
| 1 | 64th. | 40 | 4thX27 |
| 2 | 32th | 41 | 4thX28 |
| 3 | 32th/3 | 42 | 4thX29 |
| 4 | 32th. | 43 | 4thX30 |
| 5 | 16th | 44 | 4thX31 |
| 6 | 16th/3 | 45 | 4thX32 |
| 7 | 16th. | 46 | 4thX33 |
| 8 | 8th | 47 | 4thX34 |
| 9 | 8th/3 | 48 | 4thX35 |
| 10 | 8th. | 49 | 4thX36 |
| 11 | 4th | 50 | 4thX37 |
| 12 | 4th/3 | 51 | 4thX38 |
| 13 | 4th. | 52 | 4thX39 |
| 14 | 2nd | 53 | 4thX40 |
| 15 | 2nd/3 | 54 | 4thX41 |
| 16 | 2nd. | 55 | 4thX42 |
| 17 | 4thX4 | 56 | 4thX43 |
| 18 | 4thX5 | 57 | 4thX44 |
| 19 | 4thX6 | 58 | 4thX45 |
| 20 | 4thX7 | 59 | 4thX46 |
| 21 | 4thX8 | 60 | 4thX47 |
| 22 | 4thX9 | 61 | 4thX48 |
| 23 | 4thX10 | 62 | 4thX49 |
| 24 | 4thX11 | 63 | 4thX50 |
| 25 | 4thX12 | 64 | 4thX51 |
| 26 | 4thX13 | 65 | 4thX52 |
| 27 | 4thX14 | 66 | 4thX53 |
| 28 | 4thX15 | 67 | 4thX54 |
| 29 | 4thX16 | 68 | 4thX55 |
| 30 | 4thX17 | 69 | 4thX56 |
| 31 | 4thX18 | 70 | 4thX57 |
| 32 | 4thX19 | 71 | 4thX58 |
| 33 | 4thX20 | 72 | 4thX59 |
| 34 | 4thX21 | 73 | 4thX60 |
| 35 | 4thX22 | 74 | 4thX61 |
| 36 | 4thX23 | 75 | 4thX62 |
| 37 | 4thX24 | 76 | 4thX63 |
| 38 | 4thX25 | 77 | 4thX64 |

# MIDI Data Format / MIDI-Datenformat / Format des données MIDI / Formato de datos MIDI

Many MIDI messages listed in the MIDI Data Format are expressed in decimal numbers, binary numbers and hexadecimal numbers. Hexadecimal numbers may include the letter “H” as a suffix.
Also, “n” can freely be defined as any whole number. To enter data/values, refer to the table below.

| Decimal | Hexadecimal | Binary |
|---|---|---|
| 0 | 00 | 0000 0000 |
| 1 | 01 | 0000 0001 |
| 2 | 02 | 0000 0010 |
| 3 | 03 | 0000 0011 |
| 4 | 04 | 0000 0100 |
| 5 | 05 | 0000 0101 |
| 6 | 06 | 0000 0110 |
| 7 | 07 | 0000 0111 |
| 8 | 08 | 0000 1000 |
| 9 | 09 | 0000 1001 |
| 10 | 0A | 0000 1010 |
| 11 | 0B | 0000 1011 |
| 12 | 0C | 0000 1100 |
| 13 | 0D | 0000 1101 |
| 14 | 0E | 0000 1110 |
| 15 | 0F | 0000 1111 |
| 16 | 10 | 0001 0000 |
| 17 | 11 | 0001 0001 |
| 18 | 12 | 0001 0010 |
| 19 | 13 | 0001 0011 |
| 20 | 14 | 0001 0100 |
| 21 | 15 | 0001 0101 |
| 22 | 16 | 0001 0110 |
| 23 | 17 | 0001 0111 |
| 24 | 18 | 0001 1000 |
| 25 | 19 | 0001 1001 |
| 26 | 1A | 0001 1010 |
| 27 | 1B | 0001 1011 |
| 28 | 1C | 0001 1100 |
| 29 | 1D | 0001 1101 |
| 30 | 1E | 0001 1110 |
| 31 | 1F | 0001 1111 |

| Decimal | Hexadecimal | Binary |
|---|---|---|
| 32 | 20 | 0010 0000 |
| 33 | 21 | 0010 0001 |
| 34 | 22 | 0010 0010 |
| 35 | 23 | 0010 0011 |
| 36 | 24 | 0010 0100 |
| 37 | 25 | 0010 0101 |
| 38 | 26 | 0010 0110 |
| 39 | 27 | 0010 0111 |
| 40 | 28 | 0010 1000 |
| 41 | 29 | 0010 1001 |
| 42 | 2A | 0010 1010 |
| 43 | 2B | 0010 1011 |
| 44 | 2C | 0010 1100 |
| 45 | 2D | 0010 1101 |
| 46 | 2E | 0010 1110 |
| 47 | 2F | 0010 1111 |
| 48 | 30 | 0011 0000 |
| 49 | 31 | 0011 0001 |
| 50 | 32 | 0011 0010 |
| 51 | 33 | 0011 0011 |
| 52 | 34 | 0011 0100 |
| 53 | 35 | 0011 0101 |
| 54 | 36 | 0011 0110 |
| 55 | 37 | 0011 0111 |
| 56 | 38 | 0011 1000 |
| 57 | 39 | 0011 1001 |
| 58 | 3A | 0011 1010 |
| 59 | 3B | 0011 1011 |
| 60 | 3C | 0011 1100 |
| 61 | 3D | 0011 1101 |
| 62 | 3E | 0011 1110 |
| 63 | 3F | 0011 1111 |

| Decimal | Hexadecimal | Binary |
|---|---|---|
| 64 | 40 | 0100 0000 |
| 65 | 41 | 0100 0001 |
| 66 | 42 | 0100 0010 |
| 67 | 43 | 0100 0011 |
| 68 | 44 | 0100 0100 |
| 69 | 45 | 0100 0101 |
| 70 | 46 | 0100 0110 |
| 71 | 47 | 0100 0111 |
| 72 | 48 | 0100 1000 |
| 73 | 49 | 0100 1001 |
| 74 | 4A | 0100 1010 |
| 75 | 4B | 0100 1011 |
| 76 | 4C | 0100 1100 |
| 77 | 4D | 0100 1101 |
| 78 | 4E | 0100 1110 |
| 79 | 4F | 0100 1111 |
| 80 | 50 | 0101 0000 |
| 81 | 51 | 0101 0001 |
| 82 | 52 | 0101 0010 |
| 83 | 53 | 0101 0011 |
| 84 | 54 | 0101 0100 |
| 85 | 55 | 0101 0101 |
| 86 | 56 | 0101 0110 |
| 87 | 57 | 0101 0111 |
| 88 | 58 | 0101 1000 |
| 89 | 59 | 0101 1001 |
| 90 | 5A | 0101 1010 |
| 91 | 5B | 0101 1011 |
| 92 | 5C | 0101 1100 |
| 93 | 5D | 0101 1101 |
| 94 | 5E | 0101 1110 |
| 95 | 5F | 0101 1111 |

| Decimal | Hexadecimal | Binary |
|---|---|---|
| 96 | 60 | 0110 0000 |
| 97 | 61 | 0110 0001 |
| 98 | 62 | 0110 0010 |
| 99 | 63 | 0110 0011 |
| 100 | 64 | 0110 0100 |
| 101 | 65 | 0110 0101 |
| 102 | 66 | 0110 0110 |
| 103 | 67 | 0110 0111 |
| 104 | 68 | 0110 1000 |
| 105 | 69 | 0110 1001 |
| 106 | 6A | 0110 1010 |
| 107 | 6B | 0110 1011 |
| 108 | 6C | 0110 1100 |
| 109 | 6D | 0110 1101 |
| 110 | 6E | 0110 1110 |
| 111 | 6F | 0110 1111 |
| 112 | 70 | 0111 0000 |
| 113 | 71 | 0111 0001 |
| 114 | 72 | 0111 0010 |
| 115 | 73 | 0111 0011 |
| 116 | 74 | 0111 0100 |
| 117 | 75 | 0111 0101 |
| 118 | 76 | 0111 0110 |
| 119 | 77 | 0111 0111 |
| 120 | 78 | 0111 1000 |
| 121 | 79 | 0111 1001 |
| 122 | 7A | 0111 1010 |
| 123 | 7B | 0111 1011 |
| 124 | 7C | 0111 1100 |
| 125 | 7D | 0111 1101 |
| 126 | 7E | 0111 1110 |
| 127 | 7F | 0111 1111 |

- Except the table above, for example 144-159 (decimal)/9nH/1001 0000-1001 1111 (binary) denotes the Note On Message for each channel (1-16). 176-191/BnH/1011 0000-1011 1111 denotes the Control Change Message for each channel (1-16). 192-207/CnH/1100 0000-1100 1111 denotes the Program Change Message for each channel (1-16). 240/F0H/1111 0000 denotes the start of a System Exclusive Message. 247/F7H/1111 0111 denotes the end of a System Exclusive Message.
- aaH (hexidecimal)/0aaaaaaa (binary) denotes the data address. The address contains High, Mid, and Low.
- bbH/0bbbbbbb denotes the byte count.
- ccH/0ccccccc denotes the check sum.
- ddH/0ddddddd denotes the data/value.

## ■ Preset Voice List

Program change numbers are often specified as numbers “0 – 127.” Since this list uses a “1 – 128” numbering system, in such cases it is necessary to subtract 1 from the transmitted program change numbers to select the appropriate sound: e.g. to select No. 2 in the list below, transmit program change number 1.

### CLP-685, CLP-695GP

| Voice Group | Voice Name | Bank MSB | Bank LSB | Program Change (1-128) |
|---|---|---|---|---|
| Piano | CFX Grand | 108 | 0 | 1 |
| | Binaural CFX Grand | 108 | 100 | 1 |
| | Bösendorfer | 108 | 6 | 1 |
| | Upright Piano | 108 | 5 | 3 |
| | Studio Grand | 108 | 1 | 3 |
| | Bright Grand | 108 | 0 | 2 |
| | Mellow Grand | 108 | 1 | 1 |
| | Ballad Grand | 108 | 2 | 1 |
| | Warm Grand | 108 | 7 | 1 |
| | Pop Grand | 108 | 1 | 2 |
| | Jazz Grand | 108 | 6 | 2 |
| | Rock Grand | 108 | 0 | 3 |
| | HonkyTonk Pf | 108 | 5 | 4 |
| E.Piano | Stage E.Piano | 108 | 0 | 5 |
| | DX E.Piano | 108 | 0 | 6 |
| | Vintage EP | 108 | 1 | 5 |
| | Soft EP | 108 | 2 | 5 |
| | Phaser EP | 108 | 3 | 5 |
| | DX Bright | 108 | 1 | 6 |
| | Tremolo Vintage | 108 | 4 | 5 |
| Organ | Organ GrandJeu | 108 | 4 | 20 |
| | Organ Principal | 108 | 1 | 20 |
| | Organ Tutti | 108 | 0 | 20 |
| | Jazz Organ 1 | 108 | 0 | 17 |
| | Jazz Organ 2 | 108 | 1 | 17 |
| | Mellow Organ | 108 | 2 | 17 |
| | Organ Flute 1 | 108 | 2 | 20 |
| | Organ Flute 2 | 108 | 3 | 20 |
| Strings | Strings | 108 | 0 | 49 |
| | Slow Strings | 108 | 0 | 50 |
| | Choir | 108 | 0 | 53 |
| Strings | Slow Choir | 108 | 1 | 53 |
| | Mellow Strings | 108 | 1 | 49 |
| | Synth Pad 1 | 108 | 0 | 90 |
| | Synth Pad 2 | 108 | 1 | 90 |
| | Synth Pad 3 | 108 | 2 | 90 |
| Bass | Acoustic Bass | 108 | 0 | 33 |
| | Bass & Cymbal | 108 | 1 | 33 |
| | Electric Bass | 108 | 0 | 34 |
| | Fretless Bass | 108 | 0 | 36 |
| | Vintage Bass | 108 | 1 | 34 |
| Others | Harpsichord 8' | 108 | 0 | 7 |
| | Harpsi. 8'+4' | 108 | 1 | 7 |
| | Harp | 108 | 0 | 47 |
| | Vibraphone | 108 | 0 | 12 |
| | Marimba | 108 | 0 | 13 |
| | Celesta | 108 | 0 | 9 |
| | Nylon Guitar | 108 | 0 | 25 |
| | Steel Guitar | 108 | 0 | 26 |
| | Scat | 108 | 0 | 54 |

* For details on XG Voices, refer to the “XG Voice list” in the separate Data List.

### CLP-675, CLP-645, CLP-635, CLP-665GP

| Voice Group | Voice Name | Bank MSB | Bank LSB | Program Change (1-128) |
|---|---|---|---|---|
| Piano | CFX Grand | 108 | 0 | 1 |
| | Binaural CFX Grand | 108 | 100 | 1 |
| | Bösendorfer | 108 | 6 | 1 |
| | Upright Piano | 108 | 5 | 3 |
| | Bright Grand | 108 | 0 | 2 |
| | Mellow Grand | 108 | 1 | 1 |
| | Warm Grand | 108 | 7 | 1 |
| | Pop Grand | 108 | 1 | 2 |
| | Jazz Grand | 108 | 6 | 2 |
| | Rock Grand | 108 | 0 | 3 |
| | HonkyTonk Pf | 108 | 5 | 4 |
| E.Piano | Stage E. Piano | 108 | 0 | 5 |
| | DX E.Piano | 108 | 0 | 6 |
| | Vintage EP | 108 | 1 | 5 |
| | Soft EP | 108 | 2 | 5 |
| | Phaser EP | 108 | 3 | 5 |
| | DX Bright | 108 | 1 | 6 |
| | Tremolo Vintage | 108 | 4 | 5 |
| Organ | Organ Principal | 108 | 1 | 20 |
| | Organ Tutti | 108 | 0 | 20 |
| | Jazz Organ 1 | 108 | 0 | 17 |
| | Jazz Organ 2 | 108 | 1 | 17 |
| | Mellow Organ | 108 | 2 | 17 |
| Strings | Strings | 108 | 0 | 49 |
| | Slow Strings | 108 | 0 | 50 |
| | Choir | 108 | 0 | 53 |
| | Slow Choir | 108 | 1 | 53 |
| | Synth Pad | 108 | 0 | 90 |
| Bass | Acoustic Bass | 108 | 0 | 33 |
| | Bass & Cymbal | 108 | 1 | 33 |
| | Electric Bass | 108 | 0 | 34 |
| | Fretless Bass | 108 | 0 | 36 |
| Others | Harpsichord 8' | 108 | 0 | 7 |
| | Harpsi. 8'+4' | 108 | 1 | 7 |
| | Vibraphone | 108 | 0 | 12 |
| | Nylon Guitar | 108 | 0 | 25 |
| | Steel Guitar | 108 | 0 | 26 |

# MIDI CHANNEL MESSAGE (1)

| Application Range | MIDI, Internal Sequencer |
|---|---|

| MIDI Events | Status byte | 1st Data byte | | | 2nd Data byte | | | MIDI Formats | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Status | Data | (Hex) | Parameter | Data | (Hex) | Parameter | | Song | R1 R2 L | Keyboard (All manually played parts) | Panel (main generation method) | Song |
| Key Off | 8nH (n: Channel Number) | kk | | Key no. (0-127) | vv | | Velocity (0-127) | [GM1] [GM2] | O | O | O | O (Keyboard) | O |
| Key On | 9nH (n: Channel Number) | kk | | Key no. (0-127) | vv | | Key On: vv=1-127 Key Off: vv=0 | [GM1] [GM2] | O | O | O | O (Keyboard) | O |
| Control Change | BnH | 0 | (00H) | Bank Select MSB | 0<br>64<br>118<br>119<br>120<br>121<br>126<br>127 | (00H)<br>(40H)<br>(76H)<br>(77H)<br>(78H)<br>(79H)<br>(7EH)<br>(7FH) | Normal<br>SFX Voice<br>GS Rhythm<br>GS Normal<br>GM2 Rhythm<br>GM2 Normal<br>SFX kit<br>Drum kit | [GM2] | O | O | × (*1) | O (Voice) | O |
| | | 1 | (01H) | Modulation | 0-127 | (00H...7FH) | Data | [GM1] [GM2] | O | O | O | × | O |
| | | 5 | (05H) | Portamento Time | 0-127 | (00H...7FH) | Data | [GM2] | O | O | O | × | O |
| | | 6 | (06H) | Data Entry MSB | 0-127 | (00H...7FH) | Data | [GM2] | O | O | O | O (Function) | O |
| | | 7 | (07H) | Main Volume | 0-127 | (00H...7FH) | Data | [GM1] [GM2] | O | O | O | O (Function) | O |
| | | 10 | (0AH) | Panpot | 0-127 | (00H...7FH) | L64...C...R63 | [GM1] [GM2] | O | O | O | O (Function) | O |
| | | 11 | (0BH) | Expression | 0-127 | (00H...7FH) | Data | [GM1] [GM2] | O | O | O | O (Pedal) | O |
| | | 32 | (20H) | Bank Select LSB | 0-127 | (00H...7FH) | Data | [GM2] | O | O | × (*1) | O (Voice) | O |
| | | 38 | (26H) | Data Entry LSB | 0-127 | (00H...7FH) | Data | [GM2] | O | O | O | O (Function) | O |
| | | 64 | (40H) | Sustain (Damper) | 0-127 | (00H...7FH) | Data | [GM1] [GM2] | O | O | O | O (Pedal) | O |
| | | 65 | (41H) | Portamento | 0-127 | (00H...7FH) | 0...63, 64...127 (OFF, ON) | [GM2] | O | O | O | × | O |
| | | 66 | (42H) | Sostenuto | 0-127 | (00H...7FH) | 0...63, 64...127 (OFF, ON) | [GM2] | O | O | O | O (Pedal) | O |
| | | 67 | (43H) | Soft Pedal | 0-127 | (00H...7FH) | 0...63, 64...127 (OFF, ON) | [GM2] | O | O | O | O (Pedal) | O |
| | | 71 | (47H) | Harmonic Content | 0-127 | (00H...7FH) | -64...0...+63 | [GM2] | O | O | O | O (Function) | O |
| | | 72 | (48H) | Release Time | 0-127 | (00H...7FH) | -64...0...+63 | [GM2] | O | O | O | × | O |
| | | 73 | (49H) | Attack Time | 0-127 | (00H...7FH) | -64...0...+63 | [GM2] | O | O | O | × | O |
| | | 74 | (4AH) | Brightness | 0-127 | (00H...7FH) | -64...0...+63 | [GM2] | O | O | O | O (Function) | O |
| | | 75 | (4BH) | Decay Time | 0-127 | (00H...7FH) | -64...0...+63 | [GM2] | O | O | O | × | O |
| | | 76 | (4CH) | Vibrate Rate | 0-127 | (00H...7FH) | -64...0...+63 | [GM2] | O | O | O | × | O |
| | | 77 | (4DH) | Vibrate Depth | 0-127 | (00H...7FH) | -64...0...+63 | [GM2] | O | O | O | × | O |
| | | 78 | (4EH) | Vibrate Delay | 0-127 | (00H...7FH) | -64...0...+63 | [GM2] | O | O | O | × | O |
| | | 84 | (54H) | Portamento Control | 0-127 | (00H...7FH) | Key no. (0-127) | | O | O | × | × | O |
| | | 91 | (5BH) | Effect1 Depth (Reverb Send Level) | 0-127 | (00H...7FH) | Data | [GM2] | O | O | O | O (Function) | O |
| | | 93 | (5DH) | Effect3 Depth (Chorus Send Level) | 0-127 | (00H...7FH) | Data | [GM2] | O | O | O | O (Function) | O |
| | | 94 | (5EH) | Effect4 Depth (Variation Send Level) | 0-127 | (00H...7FH) | Data | | O | O | O | × | O |
| | | 96 | (60H) | RPN Increment | – | – | The data byte is ignored. | | O | O | × | × | O |
| | | 97 | (61H) | RPN Decrement | – | – | The data byte is ignored. | | O | O | × | × | O |
| | | 98 | (62H) | NRPN LSB | 0-127 | (00H...7FH) | Data | | O | × | × | × | O |
| | | 99 | (63H) | NRPN MSB | 0-127 | (00H...7FH) | Data | | O | × | × | × | O |
| | | 100 | (64H) | RPN LSB | 0-127 | (00H...7FH) | Data | [GM2] | O | O | O | O (Function) | O |
| | | 101 | (65H) | RPN MSB | 0-127 | (00H...7FH) | Data | [GM2] | O | O | O | O (Function) | O |
| Mode Message | BnH (n: Channel Number) | 120 | (78H) | All Sound Off | 0 | (00H) | Data | [GM2] | O | O | O | × | O |
| | | 121 | (79H) | Reset All Controllers | 0 | (00H) | Data | [GM1] [GM2] | O | × | × | × | O |
| | | 122 | (7AH) | Local Control | 0<br>127 | (00H)<br>(7FH) | OFF<br>ON | | O | | | × | × |
| | | 123 | (7BH) | All Note Off | 0 | (00H) | Data | [GM1] [GM2] | O | O | O | × | O |
| | | 124 | (7CH) | Omni Off | 0 | (00H) | Data | [GM2] | O | × | × | × | O |
| | | 125 | (7DH) | Omni On | 0 | (00H) | Data | [GM2] | O | × | × | × | O |
| | | 126 | (7EH) | Mono | 0-16 | (00H...10H) | Data | [GM2] | O | × | × | × | O |
| | | 127 | (7FH) | Poly | 0 | (00H) | Data | [GM2] | O | × | × | × | O |
| Program Change | CnH (n: Channel Number) | pp | (00H...7FH) | Voice number (0-127) | – | – | – | [GM1] [GM2] | O | O | × (*1) | O (Voice) | O |
| Channel After Touch | DnH (n: Channel Number) | vv | (00H...7FH) | Data | – | – | – | [GM1] [GM2] | O | O | O | × | O |
| Polyphonic After Touch | AnH (n: Channel Number) | kk | (00H...7FH) | Key no. (0-127) | vv | (00H...7FH) | Data | | O | × | × | × | O |
| Pitch Bend Change | EnH (n: Channel Number) | cc | (00H...7FH) | LSB | dd | (00H...7FH) | MSB | [GM1] [GM2] | O | O | O | O (Pedal) | O |
| Realtime Message | F8H MIDI Clock | – | | – | – | | – | | | × | | O | |
| | FAH Start | – | | – | – | | – | | | O | | O | |
| | FBH Continue | – | | – | – | | – | | | × | | × | |
| | FCH Stop | – | | – | – | | – | | | O | | O | |
| | FEH Active Sens | – | | – | – | | – | [GM2] | | O | | O | |
| | FFH System Reset | – | | – | – | | – | | | × | | × | |

*1 Ignored when Bank Select MSB/LSB/Program Change are received in Keyboard mode.

# MIDI CHANNEL MESSAGE (2)

| Application Range | MIDI, Internal Sequencer |
|---|---|

### Parameters controlled by NRPN (Non-Registered Parameter Numbers)

| NRPN | | Data Entry | | Parameter | Data Range | MIDI Formats | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MSB | LSB | MSB | LSB | | | | Song | R1 R2 L | Keyboard (All manually played parts) | Panel (main generation method) | Song |
| 01H | 08H | mmH | – | Vibrato Rate | mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 01H | 09H | mmH | – | Vibrato Depth | mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 01H | 0AH | mmH | – | Vibrato Delay | mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 01H | 20H | mmH | – | Low Pass Filter Cutoff Frequency | mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 01H | 21H | mmH | – | Low Pass Filter Resonance | mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 01H | 30H | mmH | – | EQ BASS | mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 01H | 31H | mmH | – | EQ TREBLE | mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 01H | 34H | mmH | – | EQ BASS Frequency | mm: 04H-28H (32...2.0k [Hz]) | | O | × | × | × | O |
| 01H | 35H | mmH | – | EQ TREBLE Frequency | mm: 1CH-3AH (500...16.0k [Hz]) | | O | × | × | × | O |
| 01H | 63H | mmH | – | EG Attack Time | mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 01H | 64H | mmH | – | EG Decay Time | mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 01H | 66H | mmH | – | EG Release | mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 14H | rrH | mmH | – | Drum Low Pass Filter Cutoff Frequency | rr: drum instrument note number<br>mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 15H | rrH | mmH | – | Drum Low Pass Filter Resonance | rr: drum instrument note number<br>mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 16H | rrH | mmH | – | Drum EG Attack Rate | rr: drum instrument note number<br>mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 17H | rrH | mmH | – | Drum EG Decay Rate | rr: drum instrument note number<br>mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 18H | rrH | mmH | – | Drum Pitch Coarse | rr: drum instrument note number<br>mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 19H | rrH | mmH | – | Drum Pitch Fine | rr: drum instrument note number<br>mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 1AH | rrH | mmH | – | Drum Level | rr: drum instrument note number<br>mm: 00H-7FH (0...127) | | O | × | × | × | O |
| 1CH | rrH | mmH | – | Drum Pan | rr: drum instrument note number<br>mm: 00H, 01H-40H-7FH (RND, L63...C...R63) | | O | × | × | × | O |
| 1DH | rrH | mmH | – | Drum Reverb Send Level | rr: drum instrument note number<br>mm: 00H-7FH (0...127) | | O | × | × | × | O |
| 1EH | rrH | mmH | – | Drum Chorus Send Level | rr: drum instrument note number<br>mm: 00H-7FH (0...127) | | O | × | × | × | O |
| 1FH | rrH | mmH | – | Drum Variation Send Level | rr: drum instrument note number<br>mm: 00H-7FH (0...127) | | O | × | × | × | O |
| 24H | rrH | mmH | – | Drum HPF Cutoff Frequency | rr: drum instrument note number<br>mm: 00H-40H-7FH (-64...0...+63) | | O | × | × | × | O |
| 30H | rrH | mmH | – | Drum EQ Bass Gain | rr: drum instrument note number<br>mm: 00H-7FH (0...127) | | × | × | × | × | O |
| 31H | rrH | mmH | – | Drum EQ Treble Gain | rr: drum instrument note number<br>mm: 00H-7FH (0...127) | | × | × | × | × | O |
| 34H | rrH | mmH | – | Drum EQ Bass Frequency | rr: drum instrument note number<br>mm: 04H-28H (32...2.0k [Hz]) | | × | × | × | × | O |
| 35H | rrH | mmH | – | Drum EQ Treble Frequency | rr: drum instrument note number<br>mm: 1CH-3AH (500...16.0k [Hz]) | | × | × | × | × | O |
| 40H | rrH | mmH | – | Drum VELOCITY PITCH SENS. | rr: drum instrument note number<br>mm: 00H-0FH (0...15) | | × | × | × | × | O |
| 41H | rrH | mmH | – | Drum VELOCITY LPF CUTOFF SENS. | rr: drum instrument note number<br>mm: 00H-0FH (0...15) | | × | × | × | × | O |

NRPN MSB: 14H-1FH (for drums) message is accepted as long as the channel is set with a drum voice.
Data Entry LSB: Ignored.

### Parameters controlled by RPN (Registered Parameter Numbers)

| NRPN | | Data Entry | | Parameter | Data Range | MIDI Formats | MIDI Reception (respond/ignored) | | | MIDI Transmission (generated data) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MSB | LSB | MSB | LSB | | | | Song | R1 R2 L | Keyboard (All manually played parts) | Panel (main generation method) | Song |
| 00H | 00H | mmH | – | Pitch Bend Sensitivity | mm: 00H-18H (0...+24 [semitones]) | [GM1] [GM2] | O | O | O | O (Function) | O |
| 00H | 01H | mmH | llH | Fine Tune | mm ll: 00H 00H -100 [cent]<br>...<br>mm ll: 40H 00H 0 [cent]<br>...<br>mm ll: 7FH 7FH 100 [cent] | [GM1] [GM2] | O | O | O | O (Function) | O |
| 00H | 02H | mmH | – | Coarse Tune | mm: 28H-40H-58H (-24...0...+24 [semitones]) | [GM1] [GM2] | O | O | O | × | O |
| 00H | 05H | mmH | llH | Modulation Sensitivity | mm: Specified in semitone steps<br>ll: Specified in 100/128 cent steps | [GM2] | O | O | O | × | O |
| 7FH | 7FH | – | – | Null | – | [GM2] | O | O | O | × | O |

# MIDI PARAMETER CHANGE TABLE

| Application Range | MIDI, Internal Sequencer |
|---|---|

* Not Received when Receive Parameter SysEx is set to off.
* Not transmitted when Transmit Parameter SysEx is set to off.

## MIDI Parameter Change Table (XG SYSTEM)

| Address (H) | | | Size (H) | Data (H) | Parameter | Description | XG Default (H) | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Song | R1 R2 L | Keyboard | Panel (main generation method) | Song |
| 00 | 00 | 00 | 4 | 00-0F<br>00-0F<br>00-0F<br>00-0F | MASTER TUNE | -102.4...0...+102.3 [cent]<br>1st bit3-0→bit15-12<br>2nd bit3-0→bit11-8<br>3rd bit3-0→bit7-4<br>4th bit3-0→bit3-0 | *Panel setting value | O | | | × | O |
| | | 04 | 1 | 00-7F | MASTER VOLUME | 0...127 | 7F | O | × | × | × | O |
| | | 05 | 1 | 00-7F | MASTER ATTENUATOR | 0...127 | 00 | × | × | × | × | × |
| | | 06 | 1 | 28-58 | TRANSPOSE | -24...0...+24 [semitones] | 40 | O | × | × | × | O |
| | | 7D | 1 | N | DRUM SETUP RESET | N: Drum setup number | – | O | × | × | × | O |
| | | 7E | 1 | 00 | XG SYSTEM ON | 00=XG system ON | – | O | × | × | × | O |
| | | 7F | 1 | 00 | ALL PARAMETER RESET | 00=ON | – | O | × | × | × | × |

TOTAL SIZE 07

## MIDI Parameter Change Table (SYSTEM INFORMATION)

| Address (H) | | | Size (H) | Data (H) | Parameter | Description | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Song | R1 R2 L | Keyboard | Panel (main generation method) | Song |
| 01 | 00 | 00<br>...<br>0D | E | 20-7F<br>...<br>20-7F | Model Name 1<br>...<br>Model Name 14 | 32...127 (ASCII CHARACTER)<br>...<br>32...127 (ASCII CHARACTER) | – | – | – | × | × |
| | | 0E | 1 | | NOT USED | | | | | | |
| | | 0F | 1 | | NOT USED | | | | | | |

TOTAL SIZE 10
Transmitted in response to Dump Request. Not received.

## MIDI Parameter Change Table (EFFECT1)

| Address (H) | | | Size (H) | Data (H) | Parameter | Description | XG Default (H) | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Song | R1 R2 L | Keyboard | Panel (main generation method) | Song |
| 02 | 01 | 00 | 2 | 00-7F | REVERB TYPE MSB<br>REVERB TYPE LSB | Refer to Effect Parameter List | 01 (=HALL1)<br>00 | O | | | O<br>(Function) | O |
| | | 02 | 1 | 00-7F | REVERB PARAMETER 1 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 03 | 1 | 00-7F | REVERB PARAMETER 2 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 04 | 1 | 00-7F | REVERB PARAMETER 3 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 05 | 1 | 00-7F | REVERB PARAMETER 4 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 06 | 1 | 00-7F | REVERB PARAMETER 5 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 07 | 1 | 00-7F | REVERB PARAMETER 6 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 08 | 1 | 00-7F | REVERB PARAMETER 7 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 09 | 1 | 00-7F | REVERB PARAMETER 8 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 0A | 1 | 00-7F | REVERB PARAMETER 9 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 0B | 1 | 00-7F | REVERB PARAMETER 10 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 0C | 1 | 00-7F | REVERB RETURN | -∞dB...0dB...+6dB (0...64...127) | 40 | O | | | × | O |
| | | 0D | 1 | 01-7F | REVERB PAN | L63...C...R63 | 40 | O | | | × | O |

TOTAL SIZE 0E

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 02 | 01 | 10 | 1 | 00-7F | REVERB PARAMETER 11 | Refer to Effect Parameter List | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 11 | 1 | 00-7F | REVERB PARAMETER 12 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 12 | 1 | 00-7F | REVERB PARAMETER 13 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 13 | 1 | 00-7F | REVERB PARAMETER 14 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 14 | 1 | 00-7F | REVERB PARAMETER 15 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |
| | | 15 | 1 | 00-7F | REVERB PARAMETER 16 | * | Depends on Reverb Type | O<br>(Depends on Reverb Type) | | | × | O |

TOTAL SIZE 06

| Address (H) | | | Size (H) | Data (H) | Parameter | Description | XG Default (H) | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Song | R1 R2 L | Keyboard | Panel (main generation method) | Song |
| 02 | 01 | 20 | 2 | 00-7F | CHORUS TYPE MSB<br>CHORUS TYPE LSB | Refer to Effect Parameter List | 41 (=CHORUS1)<br>00 | O | | | O<br>(Function) | O |
| | | 22 | 1 | 00-7F | CHORUS PARAMETER 1 | * | Depends on Chorus Type | O<br>(Depends on Chorus Type) | | | × | O |
| | | 23 | 1 | 00-7F | CHORUS PARAMETER 2 | * | Depends on Chorus Type | O<br>(Depends on Chorus Type) | | | × | O |
| | | 24 | 1 | 00-7F | CHORUS PARAMETER 3 | * | Depends on Chorus Type | O<br>(Depends on Chorus Type) | | | × | O |

| Address (H) | | | Size (H) | Data (H) | Parameter | Description | XG Default (H) | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Song | R1 R2 L | Keyboard | Panel (main generation method) | Song |
| | | 25 | 1 | 00-7F | CHORUS PARAMETER 4 | Refer to Effect Parameter List | Depends on Chorus Type | O (Depends on Chorus Type) | | | × | O |
| | | 26 | 1 | 00-7F | CHORUS PARAMETER 5 | * | Depends on Chorus Type | O (Depends on Chorus Type) | | | × | O |
| | | 27 | 1 | 00-7F | CHORUS PARAMETER 6 | * | Depends on Chorus Type | O (Depends on Chorus Type) | | | × | O |
| | | 28 | 1 | 00-7F | CHORUS PARAMETER 7 | * | Depends on Chorus Type | O (Depends on Chorus Type) | | | × | O |
| | | 29 | 1 | 00-7F | CHORUS PARAMETER 8 | * | Depends on Chorus Type | O (Depends on Chorus Type) | | | × | O |
| | | 2A | 1 | 00-7F | CHORUS PARAMETER 9 | * | Depends on Chorus Type | O (Depends on Chorus Type) | | | × | O |
| | | 2B | 1 | 00-7F | CHORUS PARAMETER 10 | * | Depends on Chorus Type | O (Depends on Chorus Type) | | | × | O |
| | | 2C | 1 | 00-7F | CHORUS RETURN | -∞dB...0dB...+6dB (0...64...127) | 40 | O | | | × | O |
| | | 2D | 1 | 01-7F | CHORUS PAN | L63...C...R63 | 40 | O | | | × | O |
| | | 2E | 1 | 00-7F | SEND CHORUS TO REVERB | -∞dB...0dB...+6dB (0...64...127) | 00 | O | | | × | O |
| TOTAL SIZE | | | 0F | | | | | | | | | |
| 02 | 01 | 30 | 1 | 00-7F | CHORUS PARAMETER 11 | Refer to Effect Parameter List | Depends on Chorus Type | O (Depends on Chorus Type) | | | × | O |
| | | 31 | 1 | 00-7F | CHORUS PARAMETER 12 | * | Depends on Chorus Type | O (Depends on Chorus Type) | | | × | O |
| | | 32 | 1 | 00-7F | CHORUS PARAMETER 13 | * | Depends on Chorus Type | O (Depends on Chorus Type) | | | × | O |
| | | 33 | 1 | 00-7F | CHORUS PARAMETER 14 | * | Depends on Chorus Type | O (Depends on Chorus Type) | | | × | O |
| | | 34 | 1 | 00-7F | CHORUS PARAMETER 15 | * | Depends on Chorus Type | O (Depends on Chorus Type) | | | × | O |
| | | 35 | 1 | 00-7F | CHORUS PARAMETER 16 | * | Depends on Chorus Type | O (Depends on Chorus Type) | | | × | O |
| TOTAL SIZE | | | 06 | | | | | | | | | |

| Address (H) | | | Size (H) | Data (H) | Parameter | Description | XG Default (H) | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Song | R1 R2 L | Keyboard | Panel (main generation method) | Song |
| 02 | 01 | 40 | 2 | 00-7F<br>00-7F | VARIATION TYPE MSB<br>VARIATION TYPE LSB | Refer to Effect Parameter List | 05 (=DELAY L, C, R)<br>00 | O | | | × | O |
| | | 42 | 2 | 00-7F<br>00-7F | VARIATION PARAMETER 1 MSB<br>VARIATION PARAMETER 1 LSB | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 44 | 2 | 00-7F<br>00-7F | VARIATION PARAMETER 2 MSB<br>VARIATION PARAMETER 2 LSB | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 46 | 2 | 00-7F<br>00-7F | VARIATION PARAMETER 3 MSB<br>VARIATION PARAMETER 3 LSB | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 48 | 2 | 00-7F<br>00-7F | VARIATION PARAMETER 4 MSB<br>VARIATION PARAMETER 4 LSB | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 4A | 2 | 00-7F<br>00-7F | VARIATION PARAMETER 5 MSB<br>VARIATION PARAMETER 5 LSB | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 4C | 2 | 00-7F<br>00-7F | VARIATION PARAMETER 6 MSB<br>VARIATION PARAMETER 6 LSB | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 4E | 2 | 00-7F<br>00-7F | VARIATION PARAMETER 7 MSB<br>VARIATION PARAMETER 7 LSB | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 50 | 2 | 00-7F<br>00-7F | VARIATION PARAMETER 8 MSB<br>VARIATION PARAMETER 8 LSB | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 52 | 2 | 00-7F<br>00-7F | VARIATION PARAMETER 9 MSB<br>VARIATION PARAMETER 9 LSB | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 54 | 2 | 00-7F<br>00-7F | VARIATION PARAMETER 10 MSB<br>VARIATION PARAMETER 10 LSB | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 56 | 1 | 00-7F | VARIATION RETURN | -∞dB...0dB...+6dB (0...64...127) | 40 | O | | | × | O |
| | | 57 | 1 | 01-7F | VARIATION PAN | L63...C...R63 | 40 | O | | | × | O |
| | | 58 | 1 | 00-7F | SEND VARIATION TO REVERB | -∞dB...0dB...+6dB (0...64...127) | 00 | O | | | × | O |
| | | 59 | 1 | 00-7F | SEND VARIATION TO CHORUS | -∞dB...0dB...+6dB (0...64...127) | 00 | O | | | × | O |
| | | 5A | 1 | 00-01 | VARIATION CONNECTION | INSERTION, SYSTEM | 00 | O | | | × | O |
| | | 5B | 1 | 00-7F | VARIATION PART NUMBER | Reception: Part1...16 (0...15)<br>Transmission: Part1...16 (0...15)<br>AD (64)<br>OFF (127) | 7F | O | | | × | O |
| | | 5C | 1 | 00-7F | MW VARIATION CONTROL DEPTH | -64...0...+63 | 40 | O | | × | × | O |
| | | 5D | 1 | 00-7F | BEND VARIATION CONTROL DEPTH | -64...0...+63 | 40 | O | | × | × | O |
| | | 5E | 1 | 00-7F | CAT VARIATION CONTROL DEPTH | -64...0...+63 | 40 | O | | × | × | O |
| | | 5F | 1 | 00-7F | AC1 VARIATION CONTROL DEPTH | -64...0...+63 | 40 | O | | × | × | O |
| | | 60 | 1 | 00-7F | AC2 VARIATION CONTROL DEPTH | -64...0...+63 | 40 | O | | × | × | O |
| TOTAL SIZE | | | 21 | | | | | | | | | |
| 02 | 01 | 70 | 1 | 00-7F | VARIATION PARAMETER 11 | Refer to Effect Parameter List | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 71 | 1 | 00-7F | VARIATION PARAMETER 12 | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 72 | 1 | 00-7F | VARIATION PARAMETER 13 | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 73 | 1 | 00-7F | VARIATION PARAMETER 14 | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 74 | 1 | 00-7F | VARIATION PARAMETER 15 | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| | | 75 | 1 | 00-7F | VARIATION PARAMETER 16 | * | Depends on Variation Type | O (Depends on Variation Type) | | | × | O |
| TOTAL SIZE | | | 06 | | | | | | | | | |

## MIDI Parameter Change Table (MULTI EQ)

*The MULTI EQ Parameter cannot be reset to its factory setting with XG SYSTEM ON.

| Address (H) | | | Size (H) | Data (H) | Parameter | Description | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Song | R1 R2 L | Keyboard | Panel (main generation method) | Song |
| 02 | 40 | 00 | 1 | 00-04 | EQ TYPE | flat, jazz, pops, rock, classic | × | | | × | × |
| | | 01 | 1 | 34-4C | EQ GAIN1 | -12…0…+12 [dB] | × | | | × | × |
| | | 02 | 1 | 04-28 | EQ FREQUENCY1 | 32…2.0k [Hz] | × | | | × | × |
| | | 03 | 1 | 01-78 | EQ Q1 | 0.1…12.0 | × | | | × | × |
| | | 04 | 1 | 00-01 | EQ SHAPE1 | shelving, peaking | × | | | × | × |
| | | 05 | 1 | 34-4C | EQ GAIN2 | -12…0…+12 [dB] | × | | | × | × |
| | | 06 | 1 | 0E-36 | EQ FREQUENCY2 | 100…10.0k [Hz] | × | | | × | × |
| | | 07 | 1 | 01-78 | EQ Q2 | 0.1…12.0 | × | | | × | × |
| | | 08 | 1 | | NOT USED | | – | | | – | – |
| | | 09 | 1 | 34-4C | EQ GAIN3 | -12…0…+12 [dB] | × | | | × | × |
| | | 0A | 1 | 0E-36 | EQ FREQUENCY3 | 100…10.0k [Hz] | × | | | × | × |
| | | 0B | 1 | 01-78 | EQ Q3 | 0.1…12.0 | × | | | × | × |
| | | 0C | 1 | | NOT USED | | – | | | – | – |
| | | 0D | 1 | 34-4C | EQ GAIN4 | -12…0…+12 [dB] | × | | | × | × |
| | | 0E | 1 | 0E-36 | EQ FREQUENCY4 | 100…10.0k [Hz] | × | | | × | × |
| | | 0F | 1 | 01-78 | EQ Q4 | 0.1…12.0 | × | | | × | × |
| | | 10 | 1 | | NOT USED | | – | | | – | – |
| | | 11 | 1 | 34-4C | EQ GAIN5 | -12…0…+12 [dB] | × | | | × | × |
| | | 12 | 1 | 1C-3A | EQ FREQUENCY5 | 0.5k…16.0k [Hz] | × | | | × | × |
| | | 13 | 1 | 01-78 | EQ Q5 | 0.1…12.0 | × | | | × | × |
| | | 14 | 1 | 00-01 | EQ SHAPE5 | shelving, peaking | × | | | × | × |
| TOTAL SIZE | | | 15 | | | | | | | | |

## MIDI Parameter Change Table (EFFECT2)

*The EFFECT2 Parameter cannot be reset to its factory setting with XG SYSTEM ON.

| Address (H) | | | Size (H) | Data (H) | Parameter | Description | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Song | R1 R2 L | Keyboard | Panel (main generation method) | Song |
| 03 | n | 00 | 2 | 00-7F<br>00-7F | INSERTION EFFECT TYPE MSB<br>INSERTION EFFECT TYPE LSB | Refer to Effect Parameter List | O | | | O<br>(Function) | O |
| | | 02 | 1 | 00-7F | INSERTION EFFECT PARAMETER 1 | * | O<br>(Depends on Insertion Type) | | | O<br>(Function) | O |
| | | 03 | 1 | 00-7F | INSERTION EFFECT PARAMETER 2 | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 04 | 1 | 00-7F | INSERTION EFFECT PARAMETER 3 | * | O<br>(Depends on Insertion Type) | | | O<br>(Function) | O |
| | | 05 | 1 | 00-7F | INSERTION EFFECT PARAMETER 4 | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 06 | 1 | 00-7F | INSERTION EFFECT PARAMETER 5 | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 07 | 1 | 00-7F | INSERTION EFFECT PARAMETER 6 | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 08 | 1 | 00-7F | INSERTION EFFECT PARAMETER 7 | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 09 | 1 | 00-7F | INSERTION EFFECT PARAMETER 8 | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 0A | 1 | 00-7F | INSERTION EFFECT PARAMETER 9 | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 0B | 1 | 00-7F | INSERTION EFFECT PARAMETER 10 | * | O<br>(Depends on Insertion Type) | | | O<br>(Function) | O |
| | | 0C | 1 | 00-7F | INSERTION EFFECT PART NUMBER | Reception: Part1…16 (0…15)<br>Transmission: Part1…16 (0…15)<br>AD (64)<br>OFF (127) | O | | | O<br>(Voice) | O |
| | | 0D | 1 | 00-7F | MW INSERTION CONTROL DEPTH | -64…0…+63 | O | | | × | O |
| | | 0E | 1 | 00-7F | BEND INSERTION CONTROL DEPTH | -64…0…+63 | O | | | × | O |
| | | 0F | 1 | 00-7F | CAT INSERTION CONTROL DEPTH | -64…0…+63 | O | | | × | O |
| | | 10 | 1 | 00-7F | AC1 INSERTION CONTROL DEPTH | -64…0…+63 | O | | | O | O |
| | | 11 | 1 | 00-7F | AC2 INSERTION CONTROL DEPTH | -64…0…+63 | O | | | × | O |
| TOTAL SIZE | | | 12 | | | | | | | | |
| | | 20 | 1 | 00-7F | INSERTION EFFECT PARAMETER 11 | Refer to Effect Parameter List | O<br>(Depends on Insertion Type) | | | × | O |
| | | 21 | 1 | 00-7F | INSERTION EFFECT PARAMETER 12 | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 22 | 1 | 00-7F | INSERTION EFFECT PARAMETER 13 | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 23 | 1 | 00-7F | INSERTION EFFECT PARAMETER 14 | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 24 | 1 | 00-7F | INSERTION EFFECT PARAMETER 15 | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 25 | 1 | 00-7F | INSERTION EFFECT PARAMETER 16 | * | O<br>(Depends on Insertion Type) | | | O<br>(Function) | O |
| TOTAL SIZE | | | 6 | | | | | | | | |
| | | 30 | 2 | 00-7F<br>00-7F | INSERTION EFFECT PARAMETER 1 MSB<br>INSERTION EFFECT PARAMETER 1 LSB | Refer to Effect Parameter List | O<br>(Depends on Insertion Type) | | | × | O |
| | | 32 | 2 | 00-7F<br>00-7F | INSERTION EFFECT PARAMETER 2 MSB<br>INSERTION EFFECT PARAMETER 2 LSB | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 34 | 2 | 00-7F<br>00-7F | INSERTION EFFECT PARAMETER 3 MSB<br>INSERTION EFFECT PARAMETER 3 LSB | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 36 | 2 | 00-7F<br>00-7F | INSERTION EFFECT PARAMETER 4 MSB<br>INSERTION EFFECT PARAMETER 4 LSB | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 38 | 2 | 00-7F<br>00-7F | INSERTION EFFECT PARAMETER 5 MSB<br>INSERTION EFFECT PARAMETER 5 LSB | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 3A | 2 | 00-7F<br>00-7F | INSERTION EFFECT PARAMETER 6 MSB<br>INSERTION EFFECT PARAMETER 6 LSB | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 3C | 2 | 00-7F<br>00-7F | INSERTION EFFECT PARAMETER 7 MSB<br>INSERTION EFFECT PARAMETER 7 LSB | * | O<br>(Depends on Insertion Type) | | | × | O |
| | | 3E | 2 | 00-7F<br>00-7F | INSERTION EFFECT PARAMETER 8 MSB<br>INSERTION EFFECT PARAMETER 8 LSB | * | O<br>(Depends on Insertion Type) | | | × | O |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 40 | 2 | 00-7F<br>00-7F | INSERTION EFFECT PARAMETER 9 MSB<br>INSERTION EFFECT PARAMETER 9 LSB | Refer to Effect Parameter List | O<br>(Depends on Insertion Type) | × | O |
| | | 42 | 2 | 00-7F<br>00-7F | INSERTION EFFECT PARAMETER 10 MSB<br>INSERTION EFFECT PARAMETER 10 LSB | * | O<br>(Depends on Insertion Type) | O<br>(Function) | O |

TOTAL SIZE 14
The second byte of the address is considered as an Insertion effect number.
n: insertion effect number

The Insertion Effect No. range is from 0 to 1. Values outside the range are handled as unknown and ignored.
For effect types that do not require MSB, the Parameters for Address 02-0B will be received and the Parameters for Address 30-42 will not be received.
For effect types that require MSB, the Parameters for Address 30-42 will be received and the Parameters for Address 02-0B will not be received.
When Bulk Dumps that include Effect Type data are transmitted, the Parameters for Address 02-0B will always be transmitted. But, effects that require MSB, when the bulk dump is received the Parameters for Address 02-0B will not be received.

## MIDI Parameter Change Table (MULTI PART)

| Address (H) | | | Size (H) | Data (H) | Parameter | Description | XG Default (H) | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Song | R1<br>R2<br>L | Keyboard | Panel<br>(main generation method) | Song |
| 08 | nn | 00 | 1 | 00-20 | NOT USED | | | × | × | × | × | × |
| | | 01 | 1 | 00-7F | BANK SELECT MSB | 0...127 | part 10=7F,<br>other parts=00 | O | O | × | × | O |
| | | 02 | 1 | 00-7F | BANK SELECT LSB | 0...127 | 00 | O | O | × | × | O |
| | | 03 | 1 | 00-7F | PROGRAM NUMBER | 1...128 | 00 | O | O | × | × | O |
| | | 04 | 1 | 00-0F,<br>7F | Rcv CHANNEL | 1...16, OFF | Part No. | O | × | × | × | O |
| | | 05 | 1 | 00-01 | MONO/POLY MODE | MONO, POLY | 01 | O | × | × | × | O |
| | | 06 | 1 | 00-02 | SAME NOTE NUMBER KEY ON ASSIGN | SINGLE, MULTI, INST (for Drum) | 01 | O | × | × | × | O |
| | | 07 | 1 | 00-03 | PART MODE | NORMAL, DRUM, DRUMS1...2 | part 10=02,<br>other parts=00 | O | × | × | O<br>(Voice) | O |
| | | 08 | 1 | 28-58 | NOTE SHIFT | -24...0...+24 [semitones] | 40 | O | O | × | × | O |
| | | 09 | 2 | 00-0F<br>00-0F | DETUNE | -12.8...0...+12.7 [Hz]<br>1st bit3-0 → bit7-4<br>2nd bit3-0 → bit3-0 | 08 00 | O | O | × | × | O |
| | | 0B | 1 | 00-7F | VOLUME | 0...127 | 64 | O | O | × | × | O |
| | | 0C | 1 | 00-7F | VELOCITY SENSE DEPTH | 0...127 | 40 | O | O | × | O<br>(Function) | O |
| | | 0D | 1 | 00-7F | VELOCITY SENSE OFFSET | 0...127 | 40 | O | O | × | O<br>(Function) | O |
| | | 0E | 1 | 00-7F | PAN | RND, L63...C...R63 | 40 | O | O | × | × | O |
| | | 0F | 1 | 00-7F | NOTE LIMIT LOW | C-2...G8 | 00 | O | O | × | × | O |
| | | 10 | 1 | 00-7F | NOTE LIMIT HIGH | C-2...G8 | 7F | O | O | × | × | O |
| | | 11 | 1 | 00-7F | DRY LEVEL | 0...127 | 7F | O | O | × | × | O |
| | | 12 | 1 | 00-7F | CHORUS SEND | 0...127 | 00 | O | O | × | × | O |
| | | 13 | 1 | 00-7F | REVERB SEND | 0...127 | 28 | O | O | × | × | O |
| | | 14 | 1 | 00-7F | VARIATION SEND | 0...127 | 00 | O | O | × | × | O |
| | | 15 | 1 | 00-7F | VIBRATO RATE | -64...0...+63 | 40 | O | O | × | × | O |
| | | 16 | 1 | 00-7F | VIBRATO DEPTH | -64...0...+63 | 40 | O | O | × | × | O |
| | | 17 | 1 | 00-7F | VIBRATO DELAY | -64...0...+63 | 40 | O | O | × | × | O |
| | | 18 | 1 | 00-7F | FILTER CUTOFF FREQUENCY | -64...0...+63 | 40 | O | O | × | × | O |
| | | 19 | 1 | 00-7F | FILTER RESONANCE | -64...0...+63 | 40 | O | O | × | × | O |
| | | 1A | 1 | 00-7F | EG ATTACK TIME | -64...0...+63 | 40 | O | O | × | × | O |
| | | 1B | 1 | 00-7F | EG DECAY TIME | -64...0...+63 | 40 | O | O | × | × | O |
| | | 1C | 1 | 00-7F | EG RELEASE TIME | -64...0...+63 | 40 | O | O | × | × | O |
| | | 1D | 1 | 28-58 | MW PITCH CONTROL | -24...0...+24 [semitones] | 40 | O | O | × | × | O |
| | | 1E | 1 | 00-7F | MW LOW PASS FILTER CONTROL | -9600...0...+9450 [cent] | 40 | O | O | × | × | O |
| | | 1F | 1 | 00-7F | MW AMPLITUDE CONTROL | -100...0...+100 [%] | 40 | O | O | × | × | O |
| | | 20 | 1 | 00-7F | MW LFO PMOD DEPTH | 0...127 | 0A | O | O | × | × | O |
| | | 21 | 1 | 00-7F | MW LFO FMOD DEPTH | 0...127 | 00 | O | O | × | × | O |
| | | 22 | 1 | 00-7F | MW LFO AMOD DEPTH | 0...127 | 00 | O | O | × | × | O |
| | | 23 | 1 | 28-58 | BEND PITCH CONTROL | -24...0...+24 [semitones] | 42 | O | O | × | × | O |
| | | 24 | 1 | 00-7F | BEND LOW PASS FILTER CONTROL | -9600...0...+9450 [cent] | 40 | O | O | × | × | O |
| | | 25 | 1 | 00-7F | BEND AMPLITUDE CONTROL | -100...0...+100 [%] | 40 | O | O | × | × | O |
| | | 26 | 1 | 00-7F | BEND LFO PMOD DEPTH | 0...127 | 00 | O | O | × | × | O |
| | | 27 | 1 | 00-7F | BEND LFO FMOD DEPTH | 0...127 | 00 | O | O | × | × | O |
| | | 28 | 1 | 00-7F | BEND LFO AMOD DEPTH | 0...127 | 00 | O | O | × | × | O |

TOTAL SIZE 29

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 30 | 1 | 00-01 | Rcv PITCH BEND | OFF, ON | 01 | O | × | × | × | O |
| | | 31 | 1 | 00-01 | Rcv CH AFTER TOUCH (CAT) | OFF, ON | 01 | O | × | × | × | O |
| | | 32 | 1 | 00-01 | Rcv PROGRAM CHANGE | OFF, ON | 01 | O | × | × | × | O |
| | | 33 | 1 | 00-01 | Rcv CONTROL CHANGE | OFF, ON | 01 | O | × | × | × | O |
| | | 34 | 1 | 00-01 | Rcv POLY AFTER TOUCH (PAT) | OFF, ON | 01 | O | × | × | × | O |
| | | 35 | 1 | 00-01 | Rcv NOTE MESSAGE | OFF, ON | 01 | O | × | × | × | O |
| | | 36 | 1 | 00-01 | Rcv RPN | OFF, ON | 01 | O | × | × | × | O |
| | | 37 | 1 | 00-01 | Rcv NRPN | OFF, ON | XG mode=01,<br>GM mode=00 | O | × | × | × | O |
| | | 38 | 1 | 00-01 | Rcv MODULATION | OFF, ON | 01 | O | × | × | × | O |
| | | 39 | 1 | 00-01 | Rcv VOLUME | OFF, ON | 01 | O | × | × | × | O |
| | | 3A | 1 | 00-01 | Rcv PAN | OFF, ON | 01 | O | × | × | × | O |
| | | 3B | 1 | 00-01 | Rcv EXPRESSION | OFF, ON | 01 | O | × | × | × | O |
| | | 3C | 1 | 00-01 | Rcv HOLD1 | OFF, ON | 01 | O | × | × | × | O |
| | | 3D | 1 | 00-01 | Rcv PORTAMENTO | OFF, ON | 01 | O | × | × | × | O |
| | | 3E | 1 | 00-01 | Rcv SOSTENUTO | OFF, ON | 01 | O | × | × | × | O |
| | | 3F | 1 | 00-01 | Rcv SOFT PEDAL | OFF, ON | 01 | O | × | × | × | O |
| | | 40 | 1 | 00-01 | Rcv BANK SELECT | OFF, ON | 01 | O | × | × | × | O |
| | | 41 | 1 | 00-7F | SCALE TUNING C | -63...0...+63 [cent] | 40 | O | O | × | O<br>(Function) | O |
| | | 42 | 1 | 00-7F | SCALE TUNING C# | -63...0...+63 [cent] | 40 | O | O | × | O<br>(Function) | O |
| | | 43 | 1 | 00-7F | SCALE TUNING D | -63...0...+63 [cent] | 40 | O | O | × | O<br>(Function) | O |
| | | 44 | 1 | 00-7F | SCALE TUNING D# | -63...0...+63 [cent] | 40 | O | O | × | O<br>(Function) | O |
| | | 45 | 1 | 00-7F | SCALE TUNING E | -63...0...+63 [cent] | 40 | O | O | × | O<br>(Function) | O |
| | | 46 | 1 | 00-7F | SCALE TUNING F | -63...0...+63 [cent] | 40 | O | O | × | O<br>(Function) | O |
| | | 47 | 1 | 00-7F | SCALE TUNING F# | -63...0...+63 [cent] | 40 | O | O | × | O<br>(Function) | O |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 48 | 1 | 00-7F | SCALE TUNING G | -63...0...+63 [cent] | 40 | O | O | × | O (Function) | O |
| | | 49 | 1 | 00-7F | SCALE TUNING G# | -63...0...+63 [cent] | 40 | O | O | × | O (Function) | O |
| | | 4A | 1 | 00-7F | SCALE TUNING A | -63...0...+63 [cent] | 40 | O | O | × | O (Function) | O |
| | | 4B | 1 | 00-7F | SCALE TUNING A# | -63...0...+63 [cent] | 40 | O | O | × | O (Function) | O |
| | | 4C | 1 | 00-7F | SCALE TUNING B | -63...0...+63 [cent] | 40 | O | O | × | O (Function) | O |
| | | 4D | 1 | 28-58 | CAT PITCH CONTROL | -24...0...+24 [semitones] | 40 | O | × | × | × | O |
| | | 4E | 1 | 00-7F | CAT LOW PASS FILTER CONTROL | -9600...0...+9450 [cent] | 40 | O | × | × | × | O |
| | | 4F | 1 | 00-7F | CAT AMPLITUDE CONTROL | -100...0...+100 [%] | 40 | O | × | × | × | O |
| | | 50 | 1 | 00-7F | CAT LFO PMOD DEPTH | 0...127 | 00 | O | × | × | × | O |
| | | 51 | 1 | 00-7F | CAT LFO FMOD DEPTH | 0...127 | 00 | O | × | × | × | O |
| | | 52 | 1 | 00-7F | CAT LFO AMOD DEPTH | 0...127 | 00 | O | × | × | × | O |
| | | 53 | 1 | 28-58 | PAT PITCH CONTROL | -24...0...+24 [semitones] | 40 | O | × | × | × | O |
| | | 54 | 1 | 00-7F | PAT LOW PASS FILTER CONTROL | -9600...0...+9450 [cent] | 40 | O | × | × | × | O |
| | | 55 | 1 | 00-7F | PAT AMPLITUDE CONTROL | -100...0...+100 [%] | 40 | O | × | × | × | O |
| | | 56 | 1 | 00-7F | PAT LFO PMOD DEPTH | 0...127 | 00 | O | × | × | × | O |
| | | 57 | 1 | 00-7F | PAT LFO FMOD DEPTH | 0...127 | 00 | O | × | × | × | O |
| | | 58 | 1 | 00-7F | PAT LFO AMOD DEPTH | 0...127 | 00 | O | × | × | × | O |
| | | 59 | 1 | 00-5F | AC1 CONTROLLER NUMBER | 0...95 | 10 | O | O | × | O | O |
| | | 5A | 1 | 28-58 | AC1 PITCH CONTROL | -24...0...+24 [semitones] | 40 | O | × | × | × | O |
| | | 5B | 1 | 00-7F | AC1 LOW PASS FILTER CONTROL | -9600...0...+9450 [cent] | 40 | O | × | × | × | O |
| | | 5C | 1 | 00-7F | AC1 AMPLITUDE CONTROL | -100...0...+100 [%] | 40 | O | × | × | × | O |
| | | 5D | 1 | 00-7F | AC1 LFO PMOD DEPTH | 0...127 | 00 | O | × | × | × | O |
| | | 5E | 1 | 00-7F | AC1 LFO FMOD DEPTH | 0...127 | 00 | O | × | × | × | O |
| | | 5F | 1 | 00-7F | AC1 LFO AMOD DEPTH | 0...127 | 00 | O | × | × | × | O |
| | | 60 | 1 | 00-5F | AC2 CONTROLLER NUMBER | 0...95 | 11 | O | × | × | × | O |
| | | 61 | 2 | 28-58 | AC2 PITCH CONTROL | -24...0...+24 [semitones] | 40 | O | × | × | × | O |
| | | 62 | 1 | 00-7F | AC2 LOW PASS FILTER CONTROL | -9600...0...+9450 [cent] | 40 | O | × | × | × | O |
| | | 63 | 1 | 00-7F | AC2 AMPLITUDE CONTROL | -100...0...+100 [%] | 40 | O | × | × | × | O |
| | | 64 | 1 | 00-7F | AC2 LFO PMOD DEPTH | 0...127 | 00 | O | × | × | × | O |
| | | 65 | 1 | 00-7F | AC2 LFO FMOD DEPTH | 0...127 | 00 | O | × | × | × | O |
| | | 66 | 1 | 00-7F | AC2 LFO AMOD DEPTH | 0...127 | 00 | O | × | × | × | O |
| | | 67 | 1 | 00-01 | PORTAMENTO SWITCH | OFF, ON | 00 | O | O | × | × | O |
| | | 68 | 1 | 00-7F | PORTAMENTO TIME | 0...127 | 00 | O | O | × | × | O |
| | | 69 | 1 | 00-7F | PITCH EG INITIAL LEVEL | -64...0...+63 | 40 | O | × | × | × | O |
| | | 6A | 1 | 00-7F | PITCH EG ATTACK TIME | -64...0...+63 | 40 | O | × | × | × | O |
| | | 6B | 1 | 00-7F | PITCH EG RELEASE LEVEL | -64...0...+63 | 40 | O | × | × | × | O |
| | | 6C | 1 | 00-7F | PITCH EG RELEASE TIME | -64...0...+63 | 40 | O | × | × | × | O |
| | | 6D | 1 | 01-7F | VELOCITY LIMIT LOW | 1...127 | 01 | O | × | × | × | O |
| | | 6E | 1 | 01-7F | VELOCITY LIMIT HIGH | 1...127 | 7F | O | × | × | × | O |
| TOTAL SIZE | | | 3F | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 70 | 1 | | NOT USED | | – | – | – | – | – | – | – |
| | | 71 | 1 | | NOT USED | | – | – | – | – | – | – | – |
| | | 72 | 1 | 00-7F | EQ BASS GAIN | -12dB...+12dB | 40 | O | × | × | × | O | |
| | | 73 | 1 | 00-7F | EQ TREBLE GAIN | -12dB...+12dB | 40 | O | × | × | × | O | |
| TOTAL SIZE | | | 04 | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 74 | 1 | | NOT USED | | – | – | – | – | – | – | – |
| | | 75 | 1 | | NOT USED | | – | – | – | – | – | – | – |
| | | 76 | 1 | 04-28 | EQ BASS FREQUENCY | 32...2.0k [Hz] | 0C | O | × | × | × | O | |
| | | 77 | 1 | 1C-3A | EQ TREBLE FREQUENCY | 500...16.0k [Hz] | 36 | O | × | × | × | O | |
| | | 78 | 1 | | NOT USED | | – | – | – | – | – | – | – |
| | | 78 | 1 | | NOT USED | | – | – | – | – | – | – | – |
| | | 7A | 1 | | NOT USED | | – | – | – | – | – | – | – |
| | | 7B | 1 | | NOT USED | | – | – | – | – | – | – | – |
| | | 7C | 1 | | NOT USED | | – | – | – | – | – | – | – |
| | | 7D | 1 | | NOT USED | | – | – | – | – | – | – | – |
| | | 7E | 1 | | NOT USED | | – | – | – | – | – | – | – |
| | | 7F | 1 | | NOT USED | | – | – | – | – | – | – | – |
| TOTAL SIZE | | | 0C | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0A | nn | 40 | 1 | 00-7F | MW OFFSET LEVEL CONTROL | -100 – 100 [%] | 40 | O | × | × | × | O |
| | | 41 | 1 | 00-7F | BEND OFFSET LEVEL CONTROL | -100 – 100 [%] | 40 | O | × | × | × | O |
| | | 42 | 1 | 00-7F | CAT OFFSET LEVEL CONTROL | -100 – 100 [%] | 40 | O | × | × | × | O |
| | | 43 | 1 | 00-7F | PAT OFFSET LEVEL CONTROL | -100 – 100 [%] | 40 | O | × | × | × | O |
| | | 44 | 1 | 00-7F | AC1 OFFSET LEVEL CONTROL | -100 – 100 [%] | 40 | O | × | × | × | O |
| | | 45 | 1 | 00-7F | AC2 OFFSET LEVEL CONTROL | -100 – 100 [%] | 40 | O | × | × | × | O |
| TOTAL SIZE | | | 06 | | | | | | | | | |

nn = PART NUMBER
If there is a Drum Voice assigned to the part, the following parameters are ineffective.
- BANK SELECT LSB
- PORTAMENTO
- MONO/POLY
- SCALE TUNING
- POLY AFTER TOUCH
- PITCH EG

## MIDI Parameter Change Table (DRUM SETUP)

| Address (H) | | | Size (H) | Data (H) | Parameter | Description | XG Default (H) | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Song | R1 R2 L | Keyboard | Panel (main generation method) | Song |
| 3n | rr | 00 | 1 | 00-7F | PITCH COARSE | -64...0...+63 | 40 | O | × | × | × | O |
| | | 01 | 1 | 00-7F | PITCH FINE | -64...0...+63 [cent] | 40 | O | × | × | × | O |
| | | 02 | 1 | 00-7F | LEVEL | 0...127 | Depends on the note | O | × | × | × | O |
| | | 03 | 1 | 00-7F | ALTERNATE GROUP | OFF, 1...127 | Depends on the note | O | × | × | × | O |
| | | 04 | 1 | 00-7F | PAN | RND, L63...C...R63 | Depends on the note | O | × | × | × | O |
| | | 05 | 1 | 00-7F | REVERB SEND | 0...127 | Depends on the note | O | × | × | × | O |
| | | 06 | 1 | 00-7F | CHORUS SEND | 0...127 | Depends on the note | O | × | × | × | O |
| | | 07 | 1 | 00-7F | VARIATION SEND | 0...127 | 7F | O | × | × | × | O |
| | | 08 | 1 | 00-01 | KEY ASSIGN | SINGLE, MULTI | 00 | O | × | × | × | O |
| | | 09 | 1 | 00-01 | Rcv NOTE OFF | OFF, ON | Depends on the note | O | × | × | × | O |
| | | 0A | 1 | 00-01 | Rcv NOTE ON | OFF, ON | 01 | O | × | × | × | O |
| | | 0B | 1 | 00-7F | LOW PASS FILTER CUTOFF FREQUENCY | -64...0...+63 | 40 | O | × | × | × | O |
| | | 0C | 1 | 00-7F | LOW PASS FILTER RESONANCE | -64...0...+63 | 40 | O | × | × | × | O |
| | | 0D | 1 | 00-7F | EG ATTACK RATE | -64...0...+63 | 40 | O | × | × | × | O |
| | | 0E | 1 | 00-7F | EG DECAY1 RATE | -64...0...+63 | 40 | O | × | × | × | O |
| | | 0F | 1 | 00-7F | EG DECAY2 RATE | -64...0...+63 | 40 | O | × | × | × | O |
| TOTAL SIZE | | | 10 | | | | | | | | | |
| | | 20 | 1 | 00-7F | EQ BASS GAIN | -12dB...+12dB | 40 | × | × | × | × | × |
| | | 21 | 1 | 00-7F | EQ TREBLE GAIN | -12dB...+12dB | 40 | × | × | × | × | × |
| | | 22 | 1 | | NOT USED | | – | – | – | – | – | – |
| | | 23 | 1 | | NOT USED | | – | – | – | – | – | – |
| | | 24 | 1 | 04-28 | EQ BASS FREQUENCY | 32...2.0k [Hz] | 0C | × | × | × | × | × |
| | | 25 | 1 | 1C-3A | EQ TREBLE FREQUENCY | 500...16.0k [Hz] | 36 | × | × | × | × | × |
| | | 26 | 1 | | NOT USED | | – | – | – | – | – | – |
| | | 27 | 1 | | NOT USED | | – | – | – | – | – | – |
| | | 28 | 1 | | NOT USED | | – | – | – | – | – | – |
| | | 29 | 1 | | NOT USED | | – | – | – | – | – | – |
| | | 2A | 1 | | NOT USED | | – | – | – | – | – | – |
| | | 2B | 1 | | NOT USED | | – | – | – | – | – | – |
| | | 2C | 1 | | NOT USED | | – | – | – | – | – | – |
| | | 2D | 1 | | NOT USED | | – | – | – | – | – | – |
| TOTAL SIZE | | | 0E | | | | | | | | | |

n: Drum Setup Number (0-1)
rr: note number (0D-5B)

In the following cases, the Clavinova will initialize all Drum Setups.
XG SYSTEM ON received
GM SYSTEM ON received
GM LEVEL 2 SYSTEM ON received
GS RESET received
DRUM SETUP RESET received (only when in XG mode)

NOTICE
When a part to which a Drum Setup is assigned receives a program change, the assigned Drum Setup will be initialized.
If the same Drum Setup is assigned to two or more parts, changes in Drum Setup parameters (including program changes) will apply to all parts to which it is assigned.

# System Exclusive Messages (1)

| Application Range | MIDI, Internal Sequencer |
|---|---|

* Not Received when Receive Parameter System Exclusive is set to off.
* Not transmitted when Transmit Parameter System Exclusive is set to off.

### System Exclusive Messages (Universal Realtime Messages)

| MIDI Event | Data Format | MIDI Formats | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|
| | | | Song | R1<br>R2<br>L | Keyboard | Panel<br>(main generation method) | Song |
| Master Volume | F0 7F XN 04 01 SS TT F7<br>11110000 F0 = Exclusive status<br>01111111 7F = Universal Real Time<br>0xxxnnnn XN = When N is received N=0-F, whichever is received. X=ignored<br>00000100 04 = Sub-ID #1 = Device Control Message<br>00000001 01 = Sub-ID #2 = Master Volume<br>0sssssss SS = Volume LSB<br>0ttttttt TT = Volume MSB<br>11110111 F7 = End of Exclusive | [GM2] | O | × | × | × | △<br>(Changed to XG, and output) |
| Master Fine Tuning | F0 7F XN 04 03 SS TT F7<br>11110000 F0 = Exclusive status<br>01111111 7F = Universal Real Time<br>0xxxnnnn XN = When N is received N=0-F, whichever is received. X=ignored<br>00000100 04 = Sub-ID #1 = Device Control Message<br>00000011 03 = Sub-ID #2 = Master Fine Tuning<br>0sssssss SS = Fine Tuning LSB<br>0ttttttt TT = Fine Tuning MSB<br>11110111 F7 = End of Exclusive | [GM2] | O | × | × | × | △<br>(Changed to XG, and output) |
| Master Coarse Tuning | F0 7F XN 04 04 00 TT F7<br>11110000 F0 = Exclusive status<br>01111111 7F = Universal Real Time<br>0xxxnnnn XN = When N is received N=0-F, whichever is received. X=ignored<br>00000100 04 = Sub-ID #1 = Device Control Message<br>00000100 04 = Sub-ID #2 = Master Fine Tuning<br>00000000 00<br>0ttttttt TT = Coarse Tuning MSB<br>11110111 F7 = End of Exclusive | [GM2] | O | × | × | × | △<br>(Changed to XG, and output) |
| Reverb Parameter | F0 7F XN 04 05 01 01 01 01 01 PP VV ... F7<br>11110000 F0 = Exclusive status<br>01111111 7F = Universal Real Time<br>0xxxnnnn XN = When N is received N=0-F, whichever is received. X=ignored<br>00000100 04 = Sub-ID #1 = Device Control Message<br>00000101 05 = Sub-ID #2 = Global Parameter Control<br>00000001 01 = Slot path length = 1<br>00000001 01 = Parameter ID width = 1<br>00000001 01 = Value width = 1<br>00000001 01 = Slot path MSB = 1 (Reverb)<br>00000001 01 = Slot path LSB = 1<br>0ppppppp PP = Parameter to be controlled.<br>0vvvvvvv VV = Value for the Parameter.<br>... ...<br>11110111 F7 = End of Exclusive<br><br>Parameter (pp) Value (vv) Display<br>pp=0 Reverb Type 0...8 0: RoomS<br>1: RoomM<br>2: RoomL<br>3: HallM<br>4: HallL (default)<br>8: GM Plate<br>pp=1 Reverb Time 0...127 0...11.0s | [GM2] | O | | | × | △<br>(Changed to XG, and output) |
| Chorus Parameter | F0 7F XN 04 05 01 01 01 01 02 PP VV ... F7<br>11110000 F0 = Exclusive status<br>01111111 7F = Universal Real Time<br>0xxxnnnn XN = When N is received N=0-F, whichever is received. X=ignored<br>00000100 04 = Sub-ID #1 = Device Control Message<br>00000101 05 = Sub-ID #2 = Global Parameter Control<br>00000001 01 = Slot path length = 1<br>00000001 01 = Parameter ID width = 1<br>00000001 01 = Value width = 1<br>00000001 01 = Slot path MSB = 1 (Chorus)<br>00000010 02 = Slot path LSB = 2<br>0ppppppp PP = Parameter to be controlled.<br>0vvvvvvv VV = Value for the Parameter.<br>... ...<br>11110111 F7 = End of Exclusive<br><br>Parameter (pp) Value (vv) Display<br>pp=0 Chorus Type 0....5 0: GM Chorus1<br>1: GM Chorus2<br>2: GM Chorus3 (default)<br>3: GM Chorus4<br>4: FB Chorus<br>5: GM Flanger<br>pp=1 Mod Rate 0...127 0...15.5Hz<br>pp=2 Mod Depth 0...127<br>pp=3 Feedback 0...127<br>pp=4 Send to Reverb 0...127 | [GM2] | O | | | × | △<br>(Changed to XG, and output) |

| MIDI Event | Data Format | MIDI Formats | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|
| | | | Song | R1 R2 L | Keyboard | Panel (main generation method) | Song |
| Channel Pressure (Aftertouch) | F0 7F XN 09 01 0M PP RR ... F7<br>11110000 F0 = Exclusive status<br>01111111 7F = Universal Real Time<br>0xxxnnnn XN = When N is received N=0-F, whichever is received. X=ignored<br>00001001 09 = Sub-ID #1 = Controller Destination Setting<br>00000001 01 = Sub-ID #2 = Controller Type: 01 (Channel Pressure)<br>0000mmmm 0M = MIDI Channel (00-0F)<br>0ppppppp PP = Controlled Parameter<br>0rrrrrrr RR = Data<br>... ...<br>11110111 F7 = End of Exclusive<br><br>Make sure to set both the controlled parameter and the range.<br>Parameters not set will be restored to their default values.<br><br>Control Parameter (pp) / Data (RR) / Description / Default value<br>pp=00 Pitch Control: 28H-58H, -24...0...+24 semitones, 40H<br>pp=01 Filter Cutoff Control: 00H-7FH, -9600...0...+9450 cents, 40H<br>pp=02 Amplitude Control: 00H-7FH, -100...0...+100%, 40H<br>pp=03 LFO Pitch Depth: 00H-7FH, 0...127, 00H<br>pp=04 LFO Filter Depth: 00H-7FH, 0...127, 00H<br>pp=05 LFO Amplitude Depth: 00H-7FH, 0...127, 00H | [GM2] | O | × | × | × | △ (Changed to XG, and output) |
| Controller (Control Change) | F0 7F XN 09 03 0M CC PP RR ... F7<br>11110000 F0 = Exclusive status<br>01111111 7F = Universal Real Time<br>0xxxnnnn XN = When N is received N=0-F, whichever is received. X=ignored<br>00001001 09 = Sub-ID #1 = Controller Destination Setting<br>00000011 03 = Sub-ID #2 = Controller Type: 03 (Control Change)<br>0000mmmm 0M = MIDI Channel (00-0F)<br>0ccccccc CC = Controller Number (01H-1FH, 40H-5FH)<br>0ppppppp PP = Controlled Parameter<br>0rrrrrrr RR = Range<br>... ...<br>11110111 F7 = End of Exclusive<br><br>Make sure to set both the controlled parameter and the range.<br>Parameters not set will be restored to their default values.<br><br>Control Parameter (pp) / Data (RR) / Description / Default value<br>pp=00 Pitch Control: 28H-58H, -24...0...+24 semitones, 40H<br>pp=01 Filter Cutoff Control: 00H-7FH, -9600...0...+9450 cents, 40H<br>pp=02 Amplitude Control: 00H-7FH, -100...0...+100%, 40H<br>pp=03 LFO Pitch Depth: 00H-7FH, 0...127, 00H<br>pp=04 LFO Filter Depth: 00H-7FH, 0...127, 00H<br>pp=05 LFO Amplitude Depth: 00H-7FH, 0...127, 00H | [GM2] | O | × | × | × | △ (Changed to XG, and output) |
| Key-Based Instrument Control | F0 7F XN 0A 01 0M KK CC VV ... F7<br>11110000 F0 = Exclusive status<br>01111111 7F = Universal Real Time<br>0xxxnnnn XN = When N is received N=0-F, whichever is received. X=ignored<br>00001010 0A = Sub-ID #1 = Key-Based Instrument Control<br>00000011 01 = Sub-ID #2 = Controller<br>0000mmmm 0M = MIDI Channel (00-0F)<br>0kkkkkkk KK = Key Number<br>0ccccccc CC = Controller Number<br>0vvvvvvv VV = Value<br>... ...<br>11110111 F7 = End of Exclusive<br><br>Make sure to set both the controlled number and the value.<br><br>Control Number (CC) / Value (VV) / Description / Default value<br>CC=07H Volume: 00H-7FH, -100...0...+100%, 40H<br>CC=0AH Pan: 00H-7FH (absolute), L63...C...R63, (Preset value)<br>CC=5BH Reverb Send Level: 00H-7FH (absolute), 0...Max, (Preset value)<br>CC=5DH Chorus Send Level: 00H-7FH (absolute), 0...Max, (Preset value) | [GM2] | O | × | × | × | △ (Changed to XG, and output) |

## System Exclusive Messages (Universal Non Realtime Messages)

| MIDI Event | Data Format | MIDI Formats | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|
| | | | Song | R1 R2 L | Keyboard | Panel (main generation method) | Song |
| GM1 System On | F0 7E XN 09 01 F7<br>11110000 F0 = Exclusive status<br>01111110 7E = Universal Non-Real Time<br>0xxxnnnn XN = When N is received N=0-F, whichever is received. X=ignored<br>00001001 09 = Sub-ID #1 = General MIDI Message<br>00000001 01 = Sub-ID #2 = General MIDI On<br>11110111 F7 = End of Exclusive | [GM1] [GM2] | O | × | × | × | △ (Changed to XG, and output) |
| GM2 System On | F0 7E XN 09 03 F7<br>11110000 F0 = Exclusive status<br>01111110 7E = Universal Non-Real Time<br>0xxxnnnn XN = When N is received N=0-F, whichever is received. X=ignored<br>00001001 09 = Sub-ID #1 = General MIDI Message<br>00000011 03 = Sub-ID #2 = General MIDI2 On<br>11110111 F7 = End of Exclusive | [GM2] | O | × | × | × | △ (Changed to XG, and output) |
| General MIDI System Off | F0 7E XN 09 02 F7<br>11110000 F0 = Exclusive status<br>01111110 7E = Universal Non-Real Time<br>0xxxnnnn XN = When N is received N=0-F, whichever is received. X=ignored<br>00001001 09 = Sub-ID #1 = General MIDI Message<br>00000010 02 = Sub-ID #2 = General MIDI Off<br>11110111 F7 = End of Exclusive | [GM1] [GM2] | O | × | × | × | △ (Changed to XG, and output) |

| MIDI Event | Data Format | MIDI Formats | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|---|
| | | | Song | R1 R2 L | Keyboard | Panel (main generation method) | Song |
| Scale/Octave Tuning | F0 7E XN 08 08 JJ GG MM SS ... F7<br>11110000 F0 = Exclusive status<br>01111110 7E = Universal Non-Real Time<br>0xxxnnnn XN = When N is received N=0-F, whichever is received. X=ignored<br>00001000 08 = Sub-ID #1 = MIDI Tuning Standard<br>00001000 08 = Sub-ID #2 = scale/octave tuning 1byte form<br>0jjjjjjj JJ = Channel/option byte1<br>bits 0 to 1 = channel 15 to 16<br>bits 2 to 6 = reserved<br>0ggggggg GG= Channel byte 2 - bits 0 to 6 = channel 8 to 14<br>0mmmmmmm MM= Channel byte 2 - bits 0 to 6 = channel 1 to 7<br>0sssssss SS = 12 byte tuning offset of 12 semitones from C to B<br>00H means -64cent<br>40H means 0cent<br>7FH means +63cent<br>... ...<br>11110111 F7 = End of Exclusive | [GM2] | O | × | × | × | △<br>(Changed to XG, and output) |

# System Exclusive Messages (2)

| Application Range | MIDI, Internal Sequencer |
|---|---|

* Not Received when Receive Parameter System Exclusive is set to off.
* Not transmitted when Transmit Parameter System Exclusive is set to off.

### System Exclusive Messages (XG)

| MIDI Event | Data Format | MIDI Reception | | | MIDI Transmission | |
|---|---|---|---|---|---|---|
| | | Song | R1 R2 L | Keyboard | Panel (main generation method) | Song |
| XG Parameter Change | F0 43 1n 4C hh mm ll dd ... F7<br>11110000 F0 = Exclusive status<br>01000011 43 = YAMAHA ID<br>0001nnnn 1n = Device Number n=always 0 (when transmit), n=0-F (when receive)<br>01001100 4C = Model ID<br>0hhhhhhh hh = Address High<br>0mmmmmmm mm= Address Mid<br>01111111 ll = Address Low<br>0ddddddd dd = Data<br>... ...<br>11110111 F7 = End of Exclusive | O<br>*Refer to Parameter Change Table | | | O<br>*Refer to Parameter Change Table | |
| XG Bulk Dump | F0 43 0n 4C aa bb hh mm ll dd ... dd cc F7<br>11110000 F0 = Exclusive status<br>01000011 43 = YAMAHA ID<br>0000nnnn 0n = Device Number n=always 0 (when transmit), n=0-F (when receive)<br>01001100 4C = Model ID<br>0aaaaaaa aa = Byte Count MSB<br>0bbbbbbb bb = Byte Count LSB<br>0hhhhhhh hh = Address High<br>0mmmmmmm mm= Address Mid<br>01111111 ll = Address Low<br>0ddddddd dd = Data<br>: :<br>0ddddddd dd = Data<br>0ccccccc cc = Checksum<br>11110111 F7 = End of Exclusive | O<br>*Refer to Parameter Change Table | | | O<br>*Refer to Parameter Change Table | |
| XG Parameter Request | F0 43 3n 4C hh mm ll F7<br>11110000 F0 = Exclusive status<br>01000011 43 = YAMAHA ID<br>0011nnnn 3n = Device Number n=always 0 (when transmit), n=0-F (when receive)<br>01001100 4C = Model ID<br>0hhhhhhh hh = Address High<br>0mmmmmmm mm= Address Mid<br>01111111 ll = Address Low<br>11110111 F7 = End of Exclusive | O<br>*Refer to Parameter Change Table. (However, the request for address "0A nn 4v" will be ignored.) | × | × | × | |
| XG Dump Request | F0 43 2n 4C hh mm ll F7<br>11110000 F0 = Exclusive status<br>01000011 43 = YAMAHA ID<br>0010nnnn 2n = Device Number n=always 0 (when transmit), n=0-F (when receive)<br>01001100 4C = Model ID<br>0hhhhhhh hh = Address High<br>0mmmmmmm mm= Address Mid<br>01111111 ll = Address Low<br>11110111 F7 = End of Exclusive | O<br>*Refer to Parameter Change Table. (However, the request for address "0A nn 40" will be ignored.) | × | × | × | |

### System Exclusive Messages (Others)

| MIDI Event | Data Format | MIDI Reception (effective or not for each part) | | | MIDI Transmission (generated data) | |
|---|---|---|---|---|---|---|
| | | Song | R1 R2 L | Keyboard | Panel (main generation method) | Song |
| MIDI Master Tuning | F0 43 1n 27 30 00 00 0m 0l cc F7<br>11110000 F0 = Exclusive status<br>01000011 43 = YAMAHA ID<br>0001nnnn 1n n= always 0 (when transmit), n=0-F (when receive)<br>00100111 27 = Model ID of TG100<br>00110000 30 = Address High<br>00000000 00 = Address Mid<br>00000000 00 = Address Low<br>0000mmmm 0m = Master Tune MSB<br>00001111 0l = Master Tune LSB<br>0ccccccc cc = don't care<br>11110111 F7 = End of Exclusive | O | | | × | × |

### System Exclusive Messages (Preset Voice)

| MIDI Event | Data Format | MIDI Reception (effective or not for each part) | | | MIDI Transmission (generated data) | |
|---|---|---|---|---|---|---|
| | | Song | R1<br>R2<br>L | Keyboard | Panel<br>(main generation method) | Song |
| String Resonance Depth | F0 43 73 01 50 11 0n 02 dd F7<br>11110000 F0 = Exclusive status<br>01000011 43 = YAMAHA ID<br>01110011 73 = Clavinova ID<br>00000001 01 = Model ID (Clavinova common ID)<br>01010000 50 = Sub-ID<br>00010001 11 = Sub-ID<br>0000nnnn 0n = Channel (00-0F)<br>00000010 02 = Sub-ID (String Resonance Depth)<br>0ddddddd dd = Depth (00-48)<br>11110111 F7 = End of Exclusive | × | × | × | × | O |
| Sustain Sample Depth | F0 43 73 01 50 11 0n 03 dd F7<br>11110000 F0 = Exclusive status<br>01000011 43 = YAMAHA ID<br>01110011 73 = Clavinova ID<br>00000001 01 = Model ID (Clavinova common ID)<br>01010000 50 = Sub-ID<br>00010001 11 = Sub-ID<br>0000nnnn 0n = Channel (00-0F)<br>00000011 03 = Sub-ID (Sustain Sample Depth)<br>0ddddddd dd = Depth (00-48)<br>11110111 F7 = End of Exclusive | × | × | × | × | O |
| Key Off Sampling Depth | F0 43 73 01 50 11 0n 04 dd F7<br>11110000 F0 = Exclusive status<br>01000011 43 = YAMAHA ID<br>01110011 73 = Clavinova ID<br>00000001 01 = Model ID (Clavinova common ID)<br>01010000 50 = Sub-ID<br>00010001 11 = Sub-ID<br>0000nnnn 0n = Channel (00-0F)<br>00000100 04 = Sub-ID (Key Off Sampling Depth)<br>0ddddddd dd = Depth (00-50)<br>11110111 F7 = End of Exclusive | O | O | × | O<br>(Function) | O |
| Soft Pedal Depth | F0 43 73 01 50 11 0n 05 dd F7<br>11110000 F0 = Exclusive status<br>01000011 43 = YAMAHA ID<br>01110011 73 = Clavinova ID<br>00000001 01 = Model ID (Clavinova common ID)<br>01010000 50 = Sub-ID<br>00010001 11 = Sub-ID<br>0000nnnn 0n = Channel (00-0F)<br>00000101 05 = Sub-ID (Soft Pedal Depth)<br>0ddddddd dd = Depth (00-7F)<br>11110111 F7 = End of Exclusive | O | O | × | O<br>(Function) | O |

*For each Depth value, the reset value is 40H = voice parameter.

Yamaha [Digital Piano] MIDI Implementation Chart Date : 22-March-2016
Model CLP-685, CLP-675, CLP-645, CLP-635, CLP-695GP, CLP-665GP Version : 1.0

| Function... | | Transmitted | Recognized | Remarks |
|---|---|---|---|---|
| Basic Channel | Default | 1 - 16 | 1 - 16 | |
| | Changed | O | O | |
| Mode | Default | 3 | 3 | |
| | Messages | × | × | |
| | Altered | ********** | × | |
| Note Number : True voice | | 0 - 127<br>********** | 0 - 127<br>0 - 127 | |
| Velocity | Note ON | O 9nH,v=1-127 | O 9nH,v=1-127 | |
| | Note OFF | O 8nH,v=1-127 | O 9nH,v=0 or 8nH | |
| After Touch | Key's | × | O | |
| | Ch's | × | O | |
| Pitch Bend | | O | O 0 - 24 semi | *1 |
| Control Change | 0,32 | O | O | Bank Select |
| | 1,5 | ×*2 | O | |
| | 7,10,11 | O | O | |
| | 6,38 | O | O | Data Entry |
| | 64,66,67 | O | O | Pedal |
| | 65 | ×*2 | O | Portamento Control |
| | 71,74 | O | O | Sound Controller |
| | 72,73 | ×*2 | O | Sound Controller |
| | 84,94 | ×*2 | O | |
| | 91,93 | O | O | Effect Depth |
| | 96-97 | ×*2 | O | RPN Inc,Dec |
| | 98-99 | ×*2 | O | NRPN LSB,MSB |
| | 100-101 | O | O | RPN LSB,MSB |
| Prog Change : True # | | O 0 - 127<br>********** | O 0 - 127 | |
| System Exclusive | | O | O | |
| Common : Song Pos. | | × | × | |
| : Song Sel. | | × | × | |
| : Tune | | × | × | |
| System : Clock | | O | × | |
| Real Time : Commands | | O | O | |
| Aux : All Sound Off | | × | O (120,126,127) | |
| : Reset All Cntrls | | × | O (121) | |
| : Local ON/OFF | | × | O (122) | |
| Mes- : All Notes OFF | | × | O (123-125) | |
| sages: Active Sense | | O | O | |
| : Reset | | × | × | |

Notes: *1 For some Voices, the pitch may not be changed according to the pitch bend setting range.
*2 These Control Change messages cannot be transmitted by panel operations, but can be transmitted by song playback data.

Mode 1 : OMNI ON , POLY Mode 2 : OMNI ON ,MONO O : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF,MONO × : No

Manual Development Group

Published 04/2018 MW-B0