YAMAHA

Virtual Acoustic Synthesizer
Virtual Acoustic Tone Generator

VL Version 2

Voice Lists & MIDI Data

Contents

■ VL1/VL1-m Version 2 Voices

● File name: VL1_VER2.ALL

Loading this file with the “ALL” load option restores the VL1 Version 2 to its initial state as shipped from the factory.

The UTILITY/SYSTEM/BREATH MODE parameter is set to “Touch EG”, so until this is changed to “BC/WX” the breath controller or a WX wind controller cannot be used. Many voices can be played more expressively with a breath controller, so for the notes, below, we assume that the “Breath Mode” parameter is set to “BC/WX”.

Many of these voices can also be used on the VL7 Version 2, so load them and give them a try.

●Voice number	Voice name	Voice explanation
A01 (001)	**Vintage VL**	Dual Oscillator synth lead with slow attack swell filter EG. Play with MW2 (CC13) at center position or at minimum position for darker sound.
A02 (002)	**Jazz Sax**	Sweet tenor sax sound with some bite when blown hard. Growl on AT. VL range is D♭3 to about A♭5.
A03 (003)	**AnaBottle**	This voice is a combination of an analog sounding square wave with breath noise. It uses new kind of breath noise and has a very speedy response which is fun for solos.
A04 (004)	**JazzTrumpt**	A jazz-oriented trumpet with a wide dynamic range.
A05 (005)	**Stick**	A “hard and sticky” bass sound … similar to one often used by Peter Gabriel.
A06 (006)	**Violin**	The breath controller controls both bow pressure and speed on this violin voice. Can also be used in the cello and viola ranges.
A07 (007)	**Wet Mini**	Powerfull synth-bass with a lot of resonance.
A08 (008)	**Pastorale**	A mysterious reed/pipe timbre, quite unlike any existing instrument.
A09 (009)	**Warm Dist**	Distorted amplified electric guitar.
A10 (010)	**Super Jam**	A trumpet and trombone horn section with wide dynamics.
A11 (011)	**Shakuhachi**	An excellent Shakuhachi simulation. Best features brought out with breath variations and pitch bend.
A12 (012)	**DeepThroat**	Strange organ using lots of throat formant.
A13 (013)	**XtraX**	Acid rave lead string sound.
A14 (014)	**EnglishHrn**	The sound of the oboe’s bigger brother, the english horn. The range is F2 to about A4.
A15 (015)	**MuteCone**	Simulation of the muted trumpet.
A16 (016)	**Acid Bass**	A perfect bass sound for “acid” basslines.

●Voice number	Voice name	Voice explanation
B01 (017)	**Brassyn**	Bright analog synth-brass.
B02 (018)	**Tenor Sub**	Sax with a strong sub-tone content. A good choice for jazzy phrases.
B03 (019)	**SaxyTrump**	A strange combination of a trumpet-like sound mixed with a saxophone sound. Higher breath pressure adds more beat to the sax element. Throat is controlled by aftertouch for a sax type growl.
B04 (020)	**Trumpet**	Bright trumpet. Suitable for a wide range of styles.
B05 (021)	**FingerBass**	A fingered bass simulation.
B06 (022)	**Cello**	A natural-sounding cello simulation.
B07 (023)	**Soft Mini**	An emulation of the classic moog bass sound. The filter resonance and the filter envelope depth are on the continuous sliders (CC16, CC17).
B08 (024)	**Thai Reed**	Simulation of a South East Asian (mainly Thailand) reed instrument.
B09 (025)	**GuitarHero**	A distortion guitar. Controlling the feedback with aftertouch is particularly effective.
B10 (026)	**DynaTp&Sx**	A trumpet and sax ensemble using the new dynamic split capabilities of Version 2. The split point is C4 when the voice is initially selected, but will shift dynamically according to what you play. Add vibrato with aftertouch.
B11 (027)	**C Flute**	Flute for a wide range of musical styles.
B12 (028)	**Moby**	Mysterious sound in which the basic sound components increase successively as the key is gradually pressed. Best features brought out with aftertouch.
B13 (029)	**MechaHorse**	Aftertouch and MW2 (CC13) are the key controllers for this voice … but don’t neglect the others.
B14 (030)	**Oboe**	An oboe sound which is somewhat darker than the original VL oboe. The range is B♭2 to about G5.
B15 (031)	**Mute Boyz**	Unison layered muted trumpets. PB controls embouchure to create parallel tuned intervals. PB at minimum transposes element 1 down a 4th, 3rd or minor 3rd, and PB at maximum transposes element 2 up a 4th, 3rd or minor 3rd (key range dependenent) .
B16 (032)	**Wah Man**	Cry-baby wah-pedal effect on the BC.

Voice Lists

● Voice number	Voice name	Voice explanation
C01 (033)	**Ossyncro**	An analog synthesizer, oscillator-sync, cross-modulation sound.
C02 (034)	**SopranoSax**	Try using after touch.
C03 (035)	**FlutoPhone**	Flute/Sax hybrid. Velocity is assigned to Embouchure, producing an interesting unstable attack in the upper registers for fast staccato trills in intervals a fifth or more.
C04 (036)	**FlugelHorn**	A flugelhorn simulation with outstanding expressive characteristics in the low-pressure range.
C05 (037)	**Fretless**	Fretless bass … this one is ideal for melodic lines.
C06 (038)	**JetLipBow**	A delicate sound combining reed (oboe type) and flute sounds … with a violin-like attack.
C07 (039)	**OldMini**	Solo sound typical of saw-tooth waveforms in analog synthesizers. You can control the balance using CS1 (CC16) and CS2 (CC17) .
C08 (040)	**Japanesque**	Another Shakuhachi with breath noise.
C09 (041)	**JazzGuitar**	Electric guitar-like timbre. An obvious choice for jazz.
C10 (042)	**40'sSaxes**	A sax ensemble with that '40's jazz feel.
C11 (043)	**Tull Flute**	A noisy flute. MW2 (CC13) adjusts growl . Aftertouch is recommended.
C12 (044)	**Mad Tube**	An extremely aggressive sound that lies somewhere between synth lead and distortion guitar.
C13 (045)	**HydroStorm**	MW1 and Velocity are important controlers for this voice … but try them all.
C14 (046)	**Jazz Clari**	Bright clarinet for jazz/big band solos. MW2 (CC13) controls tonguing: move towards maximum to soften the tonguing transient.
C15 (047)	**Croma Harp**	A chromatic harmonica simulation
C16 (048)	**JungleBass**	Sliding bass for jungle music.

● Voice number	Voice name	Voice explanation
D01 (049)	**SynthSplit**	Dual Oscillator synth lead with slow attack swell filter EG. Play with MW2 (CC13) at center position or at minimum position for darker sound.
D02 (050)	**BaritonSax**	Baritone sax suitable for lead lines.
D03 (051)	**RoundBreth**	An ethnic flute sound in octaves.
D04 (052)	**JazzBone**	A trombone simulation.
D05 (053)	**Tube Bass**	Similar to the sound produced by striking the tops of cylindrical plastic pipes of differing lengths. Vary the velocity for dynamic timbre changes.
D06 (054)	**Viol Outt**	Bright violin. Full bodied, especially above G3. MW2 (CC13) for tremolo. Vary BC pressure for bowing effects. Tonguing of the BC produces a good hard bowed attack. Try the poly mode.
D07 (055)	**Mr. Mogue**	Synthesized bass in octaves.
D08 (056)	**Bagpipes**	Sounds below B♭2 are drones. Scottish folk songs are often performed with drones on B♭, and playing in B♭ Mixolydian mode in the right hand.
D09 (057)	**Cruncher**	Distortion guitar. Subtle picking nuances can be controlled via velocity.
D10 (058)	**Mrs.Yang**	Combination of Chinese violin and violin.
D11 (059)	**Piccolo**	Simulation of the piccolo.
D12 (060)	**No Harm AT**	Synthetic pipe instrument with Aftertouch control of Embouchure and Pitch Change effect depth for a unique 'car horn' style effect.
D13 (061)	**Crystal**	ME type pad effect.
D14 (062)	**Clarinet**	A light clarinet sound useful for classical music. Range is D♭2 to about A♭5.
D15 (063)	**Blues Harp**	A miked harmonica, played through a guitar amplifier.
D16 (064)	**PowerBass**	Big rave bass sound.

Voice Lists

●Voice number	Voice name	Voice explanation
E01 (065)	**AnorakSyn**	Unstable oscillator analog synth.
E02 (066)	**Bell Miked**	A simulation of saxophone miked close to the bell.
E03 (067)	**Taped Jet**	Analog tape sampler type sound. Could be flute or recorder.
E04 (068)	**MelTrump**	Mellow trumpet.
E05 (069)	**Birdland**	A sound somewhere between an analog synthesizer and electric bass. The bass harmonics are emphasized in the high range.
E06 (070)	**DoubleBow**	A bass with strong “stringed instrument” characteristics. CS2 varies the timbre.
E07 (071)	**Igneous**	Feedback synthesized lead. A simulation of an analog-synthesized distortion guitar.
E08 (072)	**Solitude**	A delicate wind sound.
E09 (073)	**IndoPluck**	A Mideastern plucked sound.
E10 (074)	**Elec Lips**	Combination of lead voice, synth lead & shakuhachi. Shakuhachi mode changes produced by MW2 (CC13).
E11 (075)	**Pan Pipes**	Pan flute simulation. Be sure to use MW2 (CC13). Aftertouch is extremely effective.
E12 (076)	**PlastiSax**	An alto sax … sounding the way it might if played through a plastic body.
E13 (077)	**Black Hole**	Try every controller.
E14 (078)	**BassClari**	The sound of the B♭ bass clarinet. Range is D2 to F5.
E15 (079)	**Lead Bows**	A new violin-like instrument that happens to sound like detuned sawtooth waves layered in octaves. Try BC tonguing for a nice hard bowed attack. Range C2-C6.
E16 (080)	**Sub Bass**	A bass sound for the subsonic range.

●Voice number	Voice name	Voice explanation
F01 (081)	**Funny Cat**	Filter-sweep synth sound.
F02 (082)	**Old Tenor**	A dry, jazzy tenor sax.
F03 (083)	**SteamLead**	Soft lead w/hard attack. Velocity controls the brigtness of the “steam.” MW2 (CC13) brings the sound up an octave and changes the timbre.
F04 (084)	**Horn**	A poly-mode horn voice.
F05 (085)	**ThumBass**	Thumped Bass.
F06 (086)	**Viowind**	A new type of sound, not belonging to any existing instrumental group. Play using MW2 (CC13), BC, and aftertouch.
F07 (087)	**50 / 50**	Solo sound using simple analog synthesizer square waves.
F08 (088)	**Digeritek**	Includes elements of distorted guitar, sax, and bowed strings. Use of the breath controller is recommended.
F09 (089)	**Sitar**	Simulation of a sitar. Effective if you play the bass in the left hand and the melody in the right. Use of aftertouch and pitch bend is very effective. Velocity controls dynamic timbral effects.
F10 (090)	**The Cool**	Combination of Flugelhorn & AltoSax. Good for the melody in 4-beat jazz styles.
F11 (091)	**BassFlute**	The sound of the rarely heard bass flute, extending an octave below the C flute. Range: C3 to C6.
F12 (092)	**BuzzSax**	A bright, buzzy tenor sax that is very responsive to breath pressure. Try aftertouch for various squeaks and growls.
F13 (093)	**Freezing**	Experiment with all controllers.
F14 (094)	**Dubble**	New acoustic double reed. Wide dynamic range with BC. Warm reedy timbre at low pressure. MW2 (CC13) controls tonguing: move towards maximum to soften the tonguing transient.
F15 (095)	**BowByBlow**	Hard bowed flute/wind hybrid. Very slowly blowing BC pressure sounds octave overtone during attack before stabilizing at fundamental.
F16 (096)	**Outback**	A sound incorporating two types of ethnic timbres. Dynamic timbre change is possible using the aftertouch from the lowest note to D2.

Voice Lists

● Voice number	Voice name	Voice explanation
G01 (097)	**AirSqeezer**	Simple octave analog synth.
G02 (098)	**Nat Tenor**	Tenor sax with a unique attack.
G03 (099)	**Sarangi**	Traditional Indian string instrument. Use aftertouch vibrato and pitch bend for microtonal ornaments, and for timbral variation.
G04 (100)	**Cornet**	A cornet for easy-listening styles.
G05 (101)	**Square**	Synth bass with emphasized filter.
G06 (102)	**Nu Viola**	Mellow, woody viola. Range C2-G6. MW2 (CC13) for tremolo. Vary BC pressure for bowing … try tonguing BC for hard bowed attack.
G07 (103)	**MoreGrunge**	A new type of deep synthesized lead.
G08 (104)	**Aerophone**	Hollow, breathy, new woodwind instrument. Play in tenor and alto ranges. MW2 (CC13) to Embouchure for alternate bend effect. Aftertouch for growl.
G09 (105)	**Spanish**	Spanish type acoustic guitar.
G10 (106)	**FluBassoon**	A classical woodwind ensemble.
G11 (107)	**Floboe**	A combination of properties of several different woodwind instruments.
G12 (108)	**PlastcReed**	The sound of a plastic reed instrument that is warm at low pressures but thin at higher pressures. Growl on aftertouch.
G13 (109)	**Mu**	Noise produced by MW1. The tone is controlled by MW2 (CC13).
G14 (110)	**DarkBasoon**	A dark, but lighter bassoon voice than the original VL bassoon. Range is Bb1 (oct down) to Eb5.
G15 (111)	**Faerie Bow**	A new “violin” instrument that happens to sound like a bright, vocal, “gizmo” motorized synth. Try BC tonguing for a nice hard bowed attack. MW2 (CC13) controls attack tightness. Range C2-C6.
G16 (112)	**Yamasteel**	A steel drum-like percussion sound. MW2 (CC13) changes the timbre.

● Voice number	Voice name	Voice explanation
H01 (113)	**Afterwork**	This voice benefits from extensive use of aftertouch.
H02 (114)	**Alto Sax**	Bright alto sax simulation.
H03 (115)	**Tenor Air**	Unique tenor lead tone. MW2 (CC13) controls Embouchure for subtle pitch bend effects.
H04 (116)	**Lite Tuba**	A “light” tuba simulation.
H05 (117)	**Brite Bass**	Artifical slap-bass. Low velocity for thumped notes; high velocity for slapped notes.
H06 (118)	**Lite Cello**	A “light” cello simulation.
H07 (119)	**FunkyLead**	Funky wah synth for percussive riffs. Very velocity sensitive.
H08 (120)	**Syraphone**	Unique transient attack response when playing intervals over a fifth with fast, staccato articulation … gives a nice tongued/bowed attack to the sound. Plays very smoothly with legato articulations and BC tonguing.
H09 (121)	**AsianPlck**	Oriental plucked sound.
H10 (122)	**BaroqeDuet**	A dynamic split with a recorder sound on top and baroque sounding cello on the bottom. Velocity controls the volume of the cello; breath controls the volume of the recorder. Vibrato for both voices is on aftertouch.
H11 (123)	**GrassHarp**	A harmonica type sound with grass reeds. Use a sustain pedal to switch to the mono mode for an ethnic sounding woodwind solo.
H12 (124)	**CombMute**	Imaginary trumpet type instrument with a very strange mute. Try moving MW2 (CC13) for a more natural vibrato.
H13 (125)	**Haze**	A psychedelic fuzzy organ in fifths, with breath control routed to the filter.
H14 (126)	**AltoRecrdr**	A duophonic alto recorder for imitating renaissance recorder duets. Range is F3 to F5.
H15 (127)	**Bowed Saw**	Sound of a bowed saw. Has the character of Ondes Martenot or Theremin (pioneer electronic instruments).
H16 (128)	**Waterphone**	Mysterious percussion instrument. Attack is softened with MW1. Squeakiness (embouchure) on MW2 (CC13). Violent SCRAPE sound with aftertouch.

■ VL1/VL1-m Version 2 WX Voices

● File name: VL1V2_WX.ALL

The 32 voices included in this file have been programmed specifically for optimum playability with a Yamaha WX-series wind controller (WX7/WX11). It is assumed that you will be using the WX Tight Lip mode (see Note 1, below). Also, make sure that the VL1 Version 2 or VL1-m Version 2 UTILITY/SYSTEM/TG SETTING "WX Lip" parameter is set to "Expand" (see Note 2).

If playing is too difficult with these settings, try the Loose Lip mode and set the VL "WX Lip" parameter to "Normal".

Note 1: The WX-series wind controllers have "Tight Lip" and "Loose Lip" modes. Refer to the WX7 or WX11 owner's manual for details.

Note 2: When the VL1V2_WX.ALL file is loading using the "ALL" load option, the "WX Lip" parameter is automatically set to "Expand".

In order to produce the correct pitch with a WX-series controller when the "Tight Lip" mode is selected, it is necessary to apply the right amount of pressure to the WX reed (i.e. sax-type embouchure). Adjust the WX controller so that a Pitch Bend value of "0" appears in the VL1-m monitor display screen (Press [F7] in the PLAY mode to see this display — see Note 3). The VL1 does not have a monitor display.

Note 3: When the WX controller is set to the "Tight Lip" mode and the VL "WX Lip" parameter is set to "Expand", the Pitch Bend value in the monitor display should vary from "-64" to "63" in response to variations in lip pressure.

This selection also includes many voices which can be effectively played via a keyboard with breath control. Many voices are suitable for the rock and pop genres, so don't overlook them for keyboard control.

The A01, A06, A10, and B14 voices are programmed with a delay vibrato effect (i.e. the vibrato effect comes in gradually after a note is played). To turn this effect off, set the "Sustain Lvl" parameter in the EDIT/E1/ENV/VIBRATO parameter page to "0".

● Voice number	Voice name	Voice explanation
A01 (001)	**Hey! Kenny**	A soprano sax simulation with delayed vibrato.
A02 (002)	**AcoEkoSyn**	A grass-reed type synth voice that takes full advantage of VL technology. Take advantage of the light portamento effect.
A03 (003)	**BrassSectn**	An ensemble with different voices assigned to the two elements. Timing, pitch, and timbre can be effectively controlled via breath and reed (pitch bend).
A04 (004)	**MutedLipWX**	A muted trumpet suitable for "old" jazz styles.
A05 (005)	**GlassAlto**	Bright alto sax, suitable for pop styles. Wide variation with breath pressure.
A06 (006)	**C Flute 2**	Attack and light pressure produce the sound of air flowing through the tube. Lip pressure can raise pitch an octave.
A07 (007)	**WXTenorSax**	Use lower breath pressures to produce a "gravelly" sound with more subtones. Higher pressure produces a tone that is ideal for jazz and fusion styles.
A08 (008)	**WahUpHarp**	Use breath control the wah effect.
A09 (009)	**C Trumpet**	Trumpet for a wide range of styles … from classic to rock. Loosen lip pressure to bend down; tighten for lip slur.
A10 (010)	**Shakuhachi**	Use lip pressure to shift the fundamental tone.
A11 (011)	**WX Bariton**	A baritone sax that can be used for bass lines or solos. Best played with a distinct rhythm.
A12 (012)	**AnaEkoSyn**	An analog synth with phaser effect. Good for long-tone solos.
A13 (013)	**GuitarHero**	Reed and breath control can produce some remarkable effects with a distortion guitar voice.
A14 (014)	**LonelyPhone**	Pitch variations from pianissimo to fortissimo. Use this characteristics to play soul-searching melodies.
A15 (015)	**MoreGrunge**	An analog type voice with a long delay. Use over about a 5-octave range.
A16 (016)	**Horn 2**	Simulates the long tube — and hard-to-play pitch characteristics — of a real horn. You might want to keep an eye on the monitor display while playing this one.

Voice Lists

● Voice number	Voice name	Voice explanation
B01 (017)	**MildAltSax**	Alto sax with excellent mid- to high-range projection. Ideal for rock and pop styles.
B02 (018)	**JazzBone**	Soft timbre on soft passages; brighter when played fortissimo.
B03 (019)	**BrightTenr**	Tenor sax with a solid attack.
B04 (020)	**Clarinet 2**	A clarinet simulation with realistic pitch and timbre variation in response to lip pressure. Very expressive.
B05 (021)	**Blues Harp**	A blues harp suitable for punchy lines.
B06 (022)	**PanPicol**	Somewhere between pan pipes and piccolo.
B07 (023)	**OldMini**	Analog synth. Breath control produces cutoff resonance type effects. Useful over an extremely wide range.
B08 (024)	**HarpSoprn**	A combination of soprano sax and harp.
B09 (025)	**WX Trumpet**	Tonguing can produce sounds ranging from flugelhorn to bright trumpet. Try applying gradual upward pitch bend.
B10 (026)	**Andean**	Andean flute. Use the WX controller to apply breath and pitch variations to each individual note. Can also be played as a pan pipe.
B11 (027)	**Air Saxes**	A dry sax sound.
B12 (028)	**Marsaloboe**	Somewhere between sax, flute, and oboe. Use lip pressure for wide-range pitch control.
B13 (029)	**JazzGuitar**	Where else can you play jazz guitar with tonguing? Very expressive.
B14 (030)	**DoubleBow**	Breath control produces effects like bowing a cello. Breath is assigned to bow speed.
B15 (031)	**Nz Piccolo**	Ebony piccolo with outstanding breath noise at low pressures.
B16 (032)	**LM AltoSax**	Alto sax for pops or fusion styles.

■ VL7 Version 2 Voices

● File name: VL7_VER2.ALL

Loading this file with the “ALL” load option restores the VL7 Version 2 to its initial state as shipped from the factory.

The UTILITY/SYSTEM/BREATH MODE parameter is set to “Touch EG”, so until this is changed to “BC/WX” the breath controller or a WX wind controller cannot be used. Many voices can be played more expressively with a breath controller, so for the notes, below, we assume that the “Breath Mode” parameter is set to “BC/WX”.

●Voice number	Voice name	Voice explanation
A01 (001)	**Brassyn**	Bright analog synth-brass.
A02 (002)	**Jazz Sax**	Sweet tenor sax sound with some bite when blown hard. Growl on AT. VL range is D♭3 to about A♭5.
A03 (003)	**AnaBottle**	This voice is a combination of an analog sounding square wave type sound with breath noise. It uses the straight horn algorithm and new fricative waves. It has a very speedy response which is fun for solos.
A04 (004)	**JazzTrumpt**	A jazz-oriented trumpet with a wide dynamic range.
A05 (005)	**Stick**	A “hard and sticky” bass sound … similar to one often used by Peter Gabriel.
A06 (006)	**Violin**	The breath controller controls both bow pressure and speed on this violin voice. Can also be used in the cello and viola ranges.
A07 (007)	**Wet Mini**	Powerfull synth-bass with a lot of resonance.
A08 (008)	**Pastorale**	A mysterious reed/pipe timbre, quite unlike any existing instrument.
A09 (009)	**Warm Dist**	Distorted amplified electric guitar.
A10 (010)	**IndoPluck**	A Mideastern plucked sound.
A11 (011)	**Shakuhachi**	An excellent Shakuhachi simulation. Best features brought out with breath variations and pitch bend.
A12 (012)	**DeepThroat**	Strange organ using lots of throat formant.
A13 (013)	**Freezing**	Experiment with all the controllers.
A14 (014)	**EnglishHrn**	The sound of the oboe’s bigger brother, the english horn. The range is F2 to about A4.
A15 (015)	**MuteCone**	Simulation of the muted trumpet.
A16 (016)	**Acid Bass**	A perfect bass sound for “acid” basslines.

●Voice number	Voice name	Voice explanation
B01 (017)	**AnorakSyn**	Unstable oscillator analog synth.
B02 (018)	**Tenor Sub**	Sax with a strong sub-tone content. A good choice for jazzy phrases.
B03 (019)	**SaxyTrump**	A strange combination of a trumpet-like sound mixed with a saxophone sound. Higher breath pressure adds more beat to the sax element. Throat is controlled by aftertouch for a sax type growl.
B04 (020)	**Trumpet**	Bright trumpet. Suitable for a wide range of styles.
B05 (021)	**FingerBass**	A fingered bass simulation.
B06 (022)	**Cello**	A natural-sounding cello simulation.
B07 (023)	**Soft Mini**	An emulation of the classic moog bass sound. The filter resonance and the filter envelope depth are on the continuous sliders (CC16, CC17).
B08 (024)	**Thai Reed**	Simulation of a South East Asian (mainly Thailand) reed instrument.
B09 (025)	**GuitarHero**	A distortion guitar. Controlling the feedback with aftertouch is particularly effective.
B10 (026)	**Spanish**	Spanish type acoustic guitar.
B11 (027)	**C Flute**	Flute for a wide range of musical styles.
B12 (028)	**Moby**	Mysterious sound in which the basic sound components increase successively as the key is gradually pressed. Best features brought out with aftertouch.
B13 (029)	**MechaHorse**	Aftertouch and MW2 (CC13) are the key controllers for this voice … but don’t neglect the others.
B14 (030)	**Oboe**	An oboe sound which is somewhat darker than the original VL oboe. The range is B♭2 to about G5.
B15 (031)	**Cornet**	A cornet for easy-listening styles.
B16 (032)	**Wah Man**	Cry-baby wah-pedal effect on the BC.

Voice Lists

● Voice number	Voice name	Voice explanation
C01 (033)	**Ossyncro**	An analog synthesizer, oscillator-sync, cross-modulation sound.
C02 (034)	**SopranoSax**	Try using after touch.
C03 (035)	**FlutoPhone**	Flute/Sax hybrid. Velocity is assigned to Embouchure, producing an interesting unstable attack in the upper registers for fast staccato trills in intervals a fifth or more.
C04 (036)	**FlugelHorn**	A flugelhorn simulation with outstanding expressive characteristics in the low-pressure range.
C05 (037)	**Fretless**	Fretless bass … this one is ideal for melodic lines.
C06 (038)	**JetLipBow**	A delicate sound combining reed (oboe type) and flute sounds … with a violin-like attack.
C07 (039)	**Solitude**	A delicate wind sound.
C08 (040)	**Floboe**	A combination of properties of several different woodwind instruments.
C09 (041)	**JazzGuitar**	Electric guitar-like timbre. An obvious choice for jazz.
C10 (042)	**Sitar**	Simulation of the sitar.
C11 (043)	**Pan Pipes**	Pan flute simulation. Be sure to use MW2 (CC13). Aftertouch is extremely effective.
C12 (044)	**Mad Tube**	An extremely aggressive sound that lies somewhere between synth lead and distortion guitar.
C13 (045)	**Mu**	Noise produced by MW1. The tone is controlled by MW2 (CC13).
C14 (046)	**Jazz Clari**	Bright clarinet for jazz/big band solos. MW2 (CC13) controls tonguing: move towards maximum to soften the tonguing transient.
C15 (047)	**Croma Harp**	A chromatic harmonica simulation.
C16 (048)	**Dubble**	New acoustic double reed. Wide dynamic range with BC. Warm reedy timbre at low pressure. MW2 (CC13) controls tonguing: move towards maximum to soften the tonguing transient.

● Voice number	Voice name	Voice explanation
D01 (049)	**AirSqeezer**	Simple octave analog synth.
D02 (050)	**BaritonSax**	Baritone sax suitable for lead lines.
D03 (051)	**Aerophone**	Hollow, breathy, new woodwind instrument. Play in tenor and alto ranges. MW2 (CC13) to Embouchure for alternate bend effect. Aftertouch for growl.
D04 (052)	**JazzBone**	A trombone simulation.
D05 (053)	**Tube Bass**	Similar to the sound produced by striking the tops of cylindrical plastic pipes of differing lengths. Vary the velocity for dynamic timbre changes.
D06 (054)	**Viol Outt**	Bright violin. Full bodied, especially above G3. MW2 (CC13) for tremolo. Vary BC pressure for bowing effects. Tonguing of the BC produces a good hard bowed attack. Try the poly mode.
D07 (055)	**Mr. Mogue**	Synthesized bass in octaves.
D08 (056)	**Old Tenor**	A dry, jazzy tenor sax.
D09 (057)	**Cruncher**	Distortion guitar. Subtle picking nuances can be controlled via velocity.
D10 (058)	**AsianPlck**	Oriental plucked sound.
D11 (059)	**Piccolo**	Simulation of the piccolo.
D12 (060)	**No Harm AT**	Synthetic pipe instrument with Aftertouch control of Embouchure and Pitch Change effect depth for a unique ‘car horn’ style effect.
D13 (061)	**Crystal**	ME type pad effect.
D14 (062)	**Clarinet**	A light clarinet sound useful for classical music. Range is D♭2 to about A♭5.
D15 (063)	**Blues Harp**	A miked harmonica, played through a guitar amplifier.
D16 (064)	**Waterphone**	Mysterious percussion instrument. Attack is softened with MW1. Squeakiness (embouchure) on MW2 (CC13). Violent SCRAPE sound with aftertouch.

■ VL7 Version 2 WX Voices

● File name: VL7V2_WX.ALL

The 32 voices included in this file have been programmed specifically for optimum playability with a Yamaha WX-series wind controller (WX7/WX11). It is assumed that you will be using the WX Tight Lip mode (see Note 1, below). Also, make sure that the VL1 Version 2 or VL1-m Version 2 UTILITY/SYSTEM/TG SETTING "WX Lip" parameter is set to "Expand" (see Note 2).

If playing is too difficult with these settings, try the Loose Lip mode and set the VL "WX Lip" parameter to "Normal".

Note 1: The WX-series wind controllers have "Tight Lip" and "Loose Lip" modes. Refer to the WX7 or WX11 owner's manual for details.

Note 2: When the VL7V2_WX.ALL file is loading using the "ALL" load option, the "WX Lip" parameter is automatically set to "Expand".

In order to produce the correct pitch with a WX-series controller when the "Tight Lip" mode is selected, it is necessary to apply the right amount of pressure to the WX reed (i.e. sax-type embouchure). Adjust the WX controller for optimum response.

This selection also includes many voices which can be effectively played via a keyboard with breath control. Many voices are suitable for the rock and pop genres, so don't overlook them for keyboard control.

The A01, A06, A08, A10, B07, and B14 voices are programmed with a delay vibrato effect (i.e. the vibrato effect comes in gradually after a note is played). To turn this effect off, set the "Sustain Lvl" parameter in the EDIT/EL/ENV/VIBRATO parameter page to "0".

● Voice number	Voice name	Voice explanation
A01 (001)	**Hey! Kenny**	A soprano sax simulation with delayed vibrato.
A02 (002)	**AcoEkoSyn**	A grass-reed type synth voice that takes full advantage of VL technology. Take advantage of the light portamento effect.
A03 (003)	**PanPicol**	Somewhere between pan pipes and piccolo.
A04 (004)	**MutedLipWX**	A muted trumpet suitable for "old" jazz styles.
A05 (005)	**GlassAlto**	Bright alto sax, suitable for pop styles. Wide variation with breath pressure.
A06 (006)	**C Flute 2**	Attack and light pressure produce the sound of air flowing through the tube. Lip pressure can raise pitch an octave.
A07 (007)	**Bassoon 2**	An extraordinarily realistic bassoon simulation. Applying reed pressure above F4 shifts the fundamental.
A08 (008)	**BreathBow**	A bowed string instrument with breath noise.
A09 (009)	**C Trumpet**	Trumpet for a wide range of styles … from classic to rock. Loosen lip pressure to bend down; tighten for lip slur.
A10 (010)	**Shakuhachi**	Use lip pressure to shift the fundamental tone.
A11 (011)	**WX Bariton**	A baritone sax that can be used for bass lines or solos. Best played with a distinct rhythm.
A12 (012)	**AnaEkoSyn**	An analog synth with phaser effect. Good for long-tone solos.
A13 (013)	**GuitarHero**	Reed and breath control can produce some remarkable effects with a distortion guitar voice.
A14 (014)	**LonelyPhone**	Pitch variations from pianissimo to fortissimo. Use this characteristics to play soul-searching melodies.
A15 (015)	**Ophelia**	Synth lead with a soft, comfortable delay.
A16 (016)	**Horn 2**	Simulates the long tube — and hard-to-play pitch characteristics — of a real horn.

● Voice number	Voice name	Voice explanation
B01 (017)	**MildAltSax**	Alto sax with excellent mid- to high-range projection. Ideal for rock and pop styles.
B02 (018)	**JazzBone**	Soft timbre on soft passages; brighter when played fortissimo.
B03 (019)	**BrightTenr**	Tenor sax with a solid attack.

B04 (020)	**Clarinet**	A clarinet simulation with realistic pitch and timbre variation in response to lip pressure. Very expressive.
B05 (021)	**Blues Harp**	A blues harp suitable for punchy lines.
B06 (022)	**Ocarina**	Somehow more “intimate” than a real ocarina. Make good use of the portamento effect.
B07 (023)	**Oboe 2**	An oboe simulation with delayed vibrato.
B08 (024)	**HarpSoprn**	A combination of soprano sax and harp.
B09 (025)	**WX Trumpet**	Tonguing can produce sounds ranging from flugelhorn to bright trumpet. Try applying gradual upward pitch bend.
B10 (026)	**Andean**	Andean flute. Use the WX controller to apply breath and pitch variations to each individual note. Can also be played as a pan pipe.
B11 (027)	**Air Saxes**	A dry sax sound.
B12 (028)	**Marsaloboe**	Somewhere between sax, flute, and oboe. Use lip pressure for wide-range pitch control.
B13 (029)	**Alto Oboe**	A somewhat “sweet” oboe simulation that sounds a bit like a clarinet. Middle register ideal for soft melodies.
B14 (030)	**DoubleBow**	Breath control produces effects like bowing a cello. Breath is assigned to bow speed.
B15 (031)	**Nz Piccolo**	Ebony piccolo with outstanding breath noise at low pressures.
B16 (032)	**LM AltoSax**	Alto sax for pops or fusion styles.

■ Additional Version 2 Voices

● File name: ADDITION.ALL

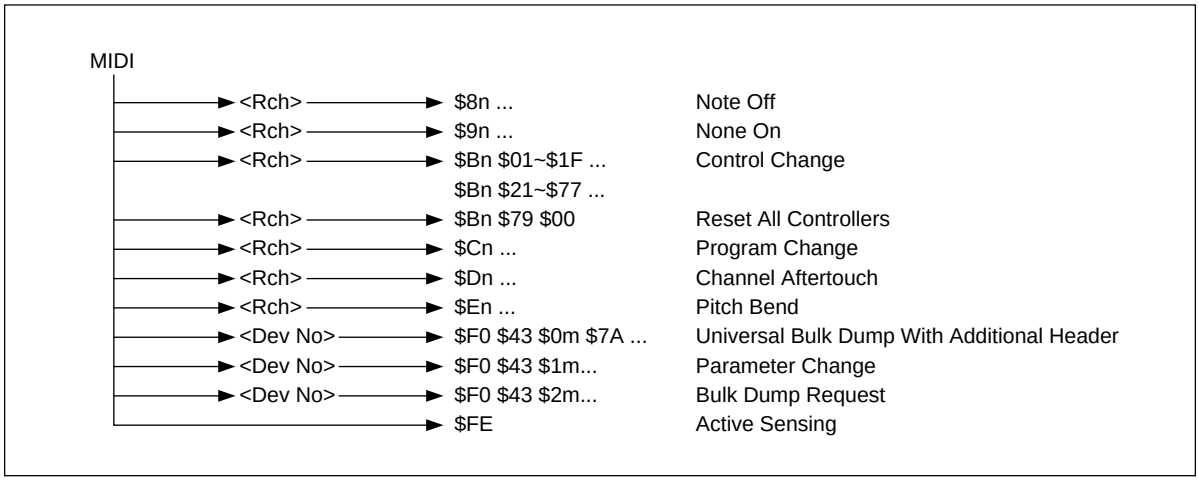
This file includes some excellent voices that are not in the VL1_VER2.ALL or VL7_VER2.ALL files. Most are single-element voices, so the VL1 voices can be used effectively on the VL7.

In all these voices the BREATH MODE is set to “BC/WX”.

●Voice number	Voice name	Voice explanation
A01 (001)	**GlassTenor**	Tenor sax with a glass-like resonance.
A02 (002)	**Old Tenor2**	Tenor sax suited for “old” jazz styles.
A03 (003)	**FunkyTenor**	Good with heavy backing. Use aftertouch.
A04 (004)	**Nat Alto**	A natural-sounding alto sax for pops styles. Edit the Modifiers to create your own sound.
A05 (005)	**HarpAlto**	A blend of harp and alto sax — or a heavily-processed sax, depending on how you play.
A06 (006)	**HarpSoprn**	Somewhere between soprano and alto sax. Unique sound in the high register.
A07 (007)	**SharpTrmp**	Bright trumpet with a distinctive upper register.
A08 (008)	**MuteLipJaz**	Muted trumpet for a wide range of styles.
A09 (009)	**Lite Horn**	A solo voice with a brass-like harmonic structure.
A10 (010)	**DubleDuble**	A variation of the Duble voice.
A11 (011)	**Floboe 2**	A variation of the Floboe voice.
A12 (012)	**Cello 2**	A variation of the Cello voice.
A13 (013)	**JetLipBow2**	A variation of the JetLipBow voice.
A14 (014)	**LiteViolin**	This strings voice is suited for delicate phrases.
A15 (015)	**CelleSynth**	Anal strings with the Celeste effect.
A16 (016)	**WahGtr BC**	Wah guitar with the Distortion+Wah effect.

■ MIDI Data Format for VL1, VL1-m, VL7 Version 2

1 MIDI receive



Note : <Rch> : MIDI receive channel switch
<Dev No> : Device number switch
n : MIDI channel
m : Device number

Ignores the third byte of Note Off.
Ignores the second byte of Pitch Bend.
No incoming MIDI signals will be recognized in Demo mode.

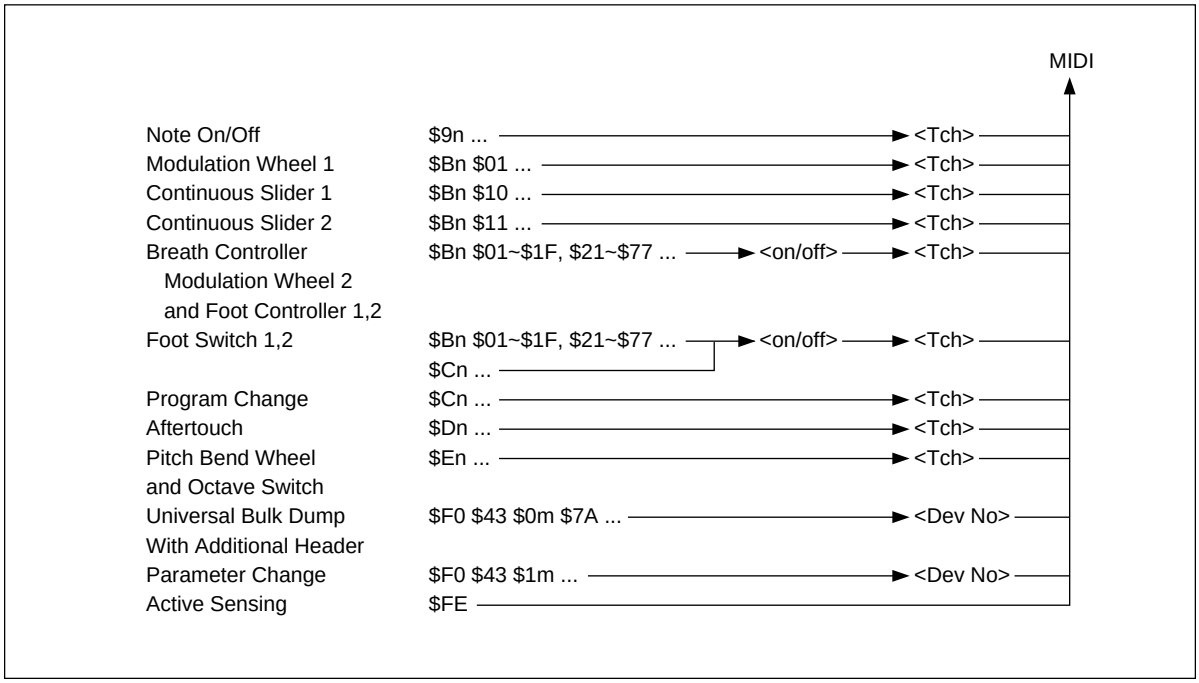
The Voice number changes according to received Program Changes.

	Program Change data	Voice number
VL1,1-m	: $00 ~ $7F	A01(001) ~ H16(128)
VL7	: $00 ~ $3F	A01(001) ~ D16(064)
	$40 ~ $7F	A01(001) ~ D16(064)

Reception may not be possible if Memory protect is ON in Bulk Dump.
Details of System Exclusive Messages are given later.
While Active Sensing is on, if no MIDI Active Sensing signals are received for more than around 330 msec, the MIDI receive buffer will be cleared, and any sound being generated will be cut off.

2 MIDI transmit

[for VL1, VL7]



Note : <Tch> : MIDI transmit channel switch
<Dev No> : Device number switch
n : MIDI channel
m : Device number

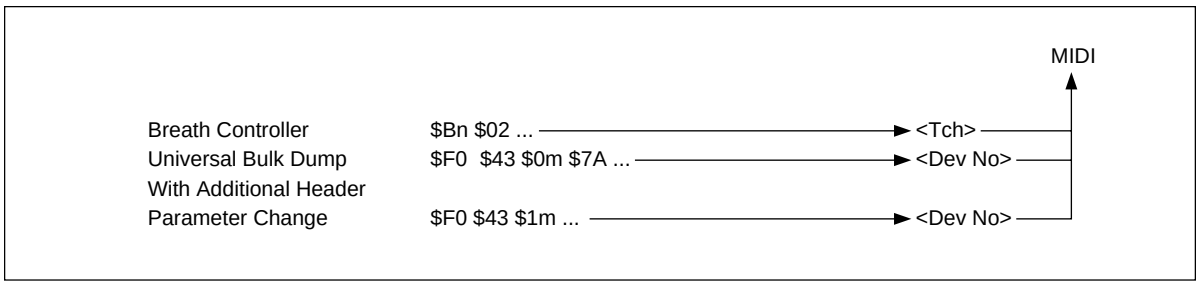
The normal transmitted note numbers corresponding to the keyboard are $30 ~ $60.
Use of Keyboard Transpose can shift these values by -$0C ~ +$0C, and use of Octave Switch can shift them a further -$0C ~ +$0C.
Pitch Bend has 7 bit resolution.
In Demo mode, only Demo sequence data will be transmitted (not keyboard data).

If the unit is in Play mode, or if Footswitches 1 or 2 are assigned to Program Increment in any mode, then Program Increments of any type will cause a Program Change message corresponding to the Voice number after the change to be transmitted.

	Voice number	Program Change data
VL1	: A01(001) ~ H16(128)	$00 ~ $7F
VL7	: A01(001) ~ D16(064)	$00 ~ $3F

Details of System Exclusive Message are given later.
Active Sensing will be transmitted every 270 msec approximately.

[for VL1-m]



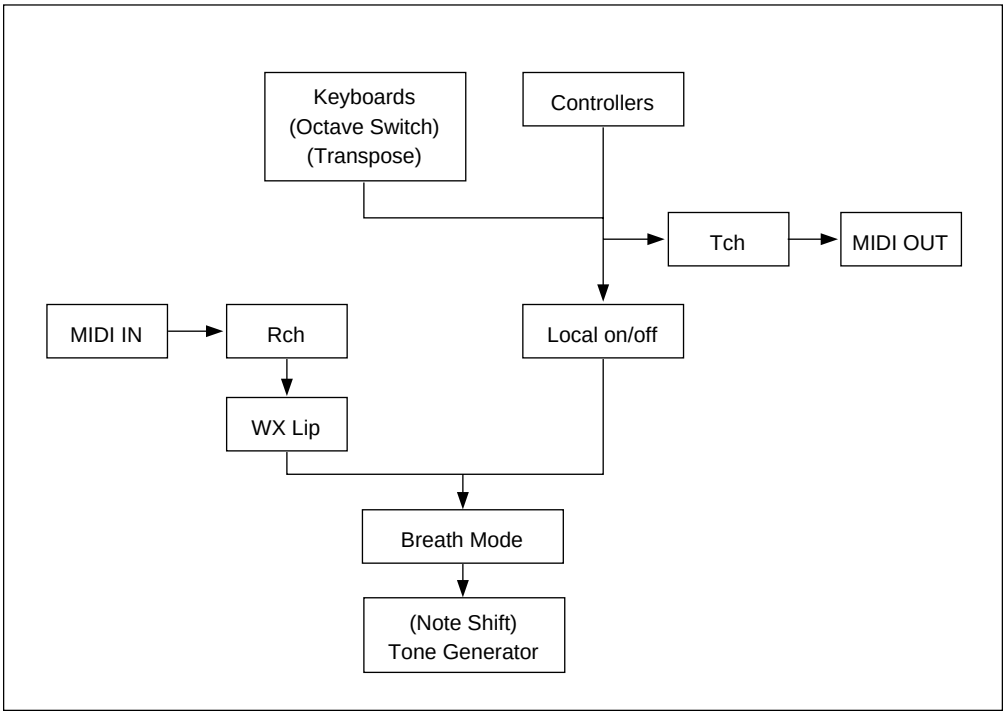
Note : <Tch> : MIDI transmit channel switch
<Dev No> : Device number switch
n : MIDI channel
m : Device number

In Demo mode, only Demo sequence data will be transmitted.
Details of System Exclusive Message are given later.

3 Keyboard and Tone Generator Configuration

Note : Note On/Off messages received from the keyboard and from MIDI are indistinguishable. This also applies to controller data. Local keyboard and controller data will always be received, irrespective of the Transmit and Receive channel settings.

VL1-m does not have Keyboards and only have Breath Controller as a controller.



4 System Exclusive Message

The following Bulk Dump Data will be transmitted on the Utility/Bulk screen.

System

Program Change Table Bulk	refer to 4.1(VL1-m only)
Micro Tuning Bulk,memory no.=0,1	refer to 4.5.1
System Bulk	refer to 4.1

All Voice

Voice Bulk,memory type=0,memory no.=

$00~$7F	VL1,1-m	refer to 4.1
$00~$3F	VL7	refer to 4.1

Current Voice

Voice Bulk,memory type=$7F	refer to 4.1

When Voice Data is changed in Edit Mode or System Data is changed in Utility Mode,a Parameter Change formatted as described in the separate tables,4.2,4.4,4.5.2 will be transmitted.

4.1 Bulk Dump

Both transmitted and received. Universal Bulk Dump With Additional Header is used.

Count	Value	$	Description
0	11110000	F0	
1	01000011	43	
2	0000nnnn	n	= device number
3	01111010	7A	
4	0bbbbbbb	b	= MSB of byte count
5	0bbbbbbb	b	= LSB of byte count Byte count is from count 6 to the beginning of check sum.
6	01001100	4C	ascii"L"
7	01001101	4D	ascii"M"
8	00100000	20	ascii" "
9	00100000	20	ascii"2"
10	00110000	30	ascii"0"
11	00110001	31	ascii"1"
12	00110001	31	ascii"1"
13	00110111	37	ascii"7"
14	0aaaaaaa	a	= data type
15	0aaaaaaa	a	= data type 56,43(ascii"V","C") : Voice 53,59(ascii"S","Y") : System 50,52(ascii"P","R") : Program Change Table (VL1-m only)
16	0ttttttt	t	= memory type 0 : Memory, 7F : Edit Buffer
17	0uuuuuuu	u	= memory number Ignored when memory type = 7F. When memory type = 0, indicates the voice number. 0 ~ 7F : A01(001) ~ H16(128) VL1,1-m 0 ~ 3F : A01(001) ~ D16(064) VL7
18 Ø	00000000	00	
31	00000000	00	
32 Ø	0ddddddd Ø	d	= data
	0ssssssss	s	= check sum (The 2's complement of the 7 bit sum of the data)
	11110111	F7	EOX

Counts 16 and 17 ignored when receiving "SY" and "PR" data.
On reception, counts 18 ~ 31 are ignored as they are sent as 0's.
Data for "VC" is

nos.32 ~ 139	Common Data Separate table 5.1,nos.0 ~ 107
nos.140 ~ 1619	Element 1 Data Separate table 5.2,nos.0 ~ 1479
nos.1620 ~ 3099 (VL1,1-m only)	Element 2 Data Separate table 5.2,nos.0 ~ 1479

Data for "SY" is

nos.32 ~ 95	System Data Separate table 5.3,nos.0 ~ 63

Data for "PR" is

nos.32 ~ 159	Program Change Table Data Separate table 5.6, nos.0 ~ 127

4.2 Parameter Change

Both transmitted and received.

Count	Value	$	Description
0	11110000	F0	
1	01000011	43	
2	0001nnnn	n	= device number
3	01010100	54	
4	0000tttt	t	= parameter type 0 : Common parameter 1 : Element parameter 2 : System parameter 5 : Remote Switch(device number is ignored) 7 : Program Change Table parameter (VL1-m only) 8 : Element,Effect and Modifier on/off Element, Effect and Modifier on/off is effective in Edit Mode only. Element on/off is ineffective for VL7.
5	0000000e	e	= element number 0 : element 1 1 : element 2 When parameter type = 1, the element number is effective, otherwise ignored. Ignored on VL7.
6	000000cc	c	= data count 1 : 1byte parameter 2 : 2byte parameter When parameter type=2,5,7,8, data count=1.
7	0ppppppp	p	= MSB of parameter offset
8	0ppppppp	p	= LSB of parameter offset Taken as the offset of the leading parameter when data count is 2.
9	0vvvvvvv	v	= parameter value
(10	0vvvvvvv	v	= parameter value when data count is 2)
	11110111	F7	EOX

Master Tuning of System Parameters can only be performed during reception. Transmission will be performed using the 4.4 DX1 Master Tuning Compatibility format. In addition, Device Number Parameter Change cannot be received or transmission.
Refer to 5 Appended Tables regarding the parameter offset.

4.3 Bulk Dump Request

Performed only during receive.

Count	Value	$	Description
0	11110000	F0	
1	01000011	43	
2	0010nnnn	n	= device number
3	01111010	7A	
4	01001100	4C	ascii"L"
5	01001101	4D	ascii"M"
6	00100000	20	ascii" "
7	00100000	20	ascii"2"

8	00110000	30	ascii"0"
9	00110001	31	ascii"1"
10	00110001	31	ascii"1"
11	00110111	37	ascii"7"
12	0aaaaaaa	a	= data type
13	0aaaaaaa	a	= data type 56,43(ascii"V","C") : Voice 53,59(ascii"S","Y") : System 50,52(ascii"P","R") : Program Change Table (VL1-m only)
14	0ttttttt	t	= memory type 0 : Memory, 7F : Edit Buffer
15	0uuuuuuu	u	= memory number Ignored when memory type = 7F When memory type = 0, indicates the voice number. 0 ~ 7F : A01(001) ~ H16(128) VL1,1-m 0 ~ 3F : A01(001) ~ D16(064) VL7
16	00000000	00	
ø			
29	00000000	00	
30	11110111	F7	EOX

Counts 14 and 15 ignored when receiving "SY" and "PR" data.
On reception, counts 16 ~ 29 are ignored as they are sent as 0's.

4.4 DX1 Master Tuning Compatibility

The System Master Tuning Parameter Change is transmitted / received in DX1 compatible format.

Count	Value	$	Description
0	11110000	F0	
1	01000011	43	
2	0001nnnn	n	= device number
3	00000100	04	
4	01000000	40	
5	0vvvvvvv	v	= parameter value -64 ~ +63 (o/b)
6	11110111	F7	EOX

(o/b): offset binary (The 2's complement sign bit reversed.)

4.5 SY77/99 Micro Tuning Compatibility

The Bulk Dump, Bulk Dump Request, and Parameter Change messages for Micro Tuning are in SY77/99 compatible format.

4.5.1 Bulk Dump

Transmit / receive

Count	Value	$	Description
0	11110000	F0	
1	01000011	43	
2	0000nnnn	n	= device number
3	01111010	7A	
4	0bbbbbbb	b	= MSB of byte count
5	0bbbbbbb	b	= LSB of byte count Byte count is from count 6 to the beginning of check sum.
6	01001100	4C	ascii"L"
7	01001101	4D	ascii"M"
8	00100000	20	ascii" "
9	00100000	20	ascii" "
10	00111000	38	ascii"8"
11	00110001	31	ascii"1"
12	00110000	30	ascii"0"
13	00110001	31	ascii"1"
14	01001101	4D	ascii"M"
15	01010100	54	ascii"T"
16	00000000	00	
ø			
30	00000000	00	
31	0uuuuuuu	u	= memory number 0,1,2 ~ 55 : I-1,I-2,P-1 ~ P-84
32	0vvvvvvv	v	= data
ø			
297	0vvvvvvv	v	
298	0ssssss	s	= check sum
299	11110111	F7	EOX

On reception, memory number 2~:P-1~ is received as 1:I-2.
Data is

nos.32 ~ 297	Separate table 5.4 Micro Tuning Parameters, nos.0 ~ 265

4.5.2 Parameter Change

Performed only during receive.

Count	Value	$	Description
0	11110000	F0	
1	01000011	43	
2	0001nnnn	n	= device number
3	00110100	34	
4	00001011	0B	
5	0000000u	u	= memory number 0 : I-1 , 1 : I-2
6	000000pp	p	= MSB of parameter offset
7	0ppppppp	p	= LSB of parameter offset
8	0vvvvvvv	v	= parameter value
9	0vvvvvvv	v	= parameter value
10	11110111	F7	EOX

Refer to the separate table 5.4 Micro Tuning Parameters of the values of p and v.

4.5.3 Bulk Dump Request

Performed only during receive.

Count	Value	$	Description
0	11110000	F0	
1	01000011	43	
2	0010nnnn	n	= device number
3	01111010	7A	
4	01001100	4C	ascii"L"
5	01001101	4D	ascii"M"
6	00100000	20	ascii" "
7	00100000	20	ascii" "
8	00111000	38	ascii"8"
9	00110001	31	ascii"1"
10	00110000	30	ascii"0"
11	00110001	31	ascii"1"
12	01001101	4D	ascii"M"
13	01010100	54	ascii"T"
14	00000000	00	
ø			
28	00000000	00	
29	0uuuuuuu	u	= memory number 0,1,2 ~ 55 : I-1,I-2,P-1 ~ P-84
30	11110111	F7	EOX

5 Appended Tables

In this table -

no.	is the parameter number	(decimal)
c	is the data count	(decimal)
p	is the offset (MSB, LSB)	(hexadecimal)
v	is the value	(decimal)

Values may be of four types given below, depending on the range of the values. These values are expressed in MIDI data in hexadecimal.

0 ~ 127	: 00 ~ 7F
0 ~ 127 , 128 ~ 16383	: 00 00 ~ 00 7F , 01 00 ~ 7F 7F
-64 ~ -1 , 0 , 1 ~ 63	: 40 ~ 7F , 00 , 01 ~ 3F (2's compliment)
-128 ~ -1 , 0 , 1 ~ 127	: 01 00 ~ 01 7F , 00 00 , 00 01 ~ 00 7F (2's compliment)

Table 5.1 Common Parameters

no.	c	p	v	name	
0~9	1	00 00 ~ 00 09	32 ~ 126	Voice Name 1~10	
10~15		00 0A ~ 00 0F	0	reserve	
16	1	00 10	0 ~ 3	Key Mode	VL1,1-m only
17	1	00 11	0 ~ 1	Voice Mode	VL1,1-m only
18	1	00 12	0 ~ 2	Split Mode	VL1,1-m only
19	1	00 13	0 ~ 127	Split Point	VL1,1-m only
20	1	00 14	0 ~ 24	Split Interval	VL1,1-m only
21	1	00 15	0 ~ 15	Elem1 MIDI Rch	VL1,1-m only
22	1	00 16	0 ~ 15	Elem2 MIDI Rch	VL1,1-m only
23	1	00 17	0 ~ 31	Poly Expand Mode	VL1,1-m only
24	1	00 18	0 ~ 31	Poly Expand No.	VL1,1-m only
25	1	00 19	0 ~ 2	PB,AT&MOD Mode	VL1,1-m only
26	1	00 1A	0 ~ 119	Polyphony Control	VL1,1-m only
27	1	00 1B	0 ~ 1	Sustain	
28	1	00 1C	0 ~ 2	Pitch Bend Mode	VL1,1-m only
29	1	00 1D	0 ~ 2	Assign Mode	
30	1	00 1E	0 ~ 127	Brth Atck Time	
31	1	00 1F	0 ~ 127	Brth Atck Gain	
32	1	00 20	0 ~ 127	Touch EG Time	
33	1	00 21	0 ~ 127	Touch EG Gain	
34	1	00 22	0 ~ 1	Portamento Time MIDI Control	
35	1	00 23	0 ~ 1	Portamento Mode	
36	1	00 24	0 ~ 127	Portamento Time	
37	1	00 25	0 ~ 1	Elem1 Portamento	
38	1	00 26	0 ~ 1	Elem2 Portamento	VL1,1-m only
39	1	00 27	-7 ~ 7	Elem1 Detune	
40	1	00 28	-7 ~ 7	Elem2 Detune	VL1,1-m only
41	1	00 29	-64 ~ 63	Elem1 Note Shift	
42	1	00 2A	-64 ~ 63	Elem2 Note Shift	VL1,1-m only
43	1	00 2B	0 ~ 7	Elem1 Rand Pitch	
44	1	00 2C	0 ~ 7	Elem2 Rand Pitch	VL1,1-m only
45	1	00 2D	0 ~ 86	Elem1 MicroTuning	
46	1	00 2E	0 ~ 86	Elem2 MicroTuning	VL1,1-m only
47	1	00 2F	0 ~ 127	Elem1 Level	
48	1	00 30	0 ~ 127	Elem2 Level	VL1,1-m only
49	1	00 31	-64 ~ 63	Elem1 Pan L	
50	1	00 32	-64 ~ 63	Elem1 Pan R	
51	1	00 33	-64 ~ 63	Elem2 Pan L	VL1,1-m only
52	1	00 34	-64 ~ 63	Elem2 Pan R	VL1,1-m only
53	1	00 35	0 ~ 4 (0 ~ 2)	CS1 Class	(Voice Mode=0 or VL7)
54	2	00 36	0 ~ 150 (0 ~ 47)	CS1 Assign	(CS1 Class=1)
56	1	00 38	0 ~ 4 (0 ~ 2)	CS2 Class	(Voice Mode=0 or VL7)
57	2	00 39	0 ~ 150 (0 ~ 47)	CS2 Assign	(CS2 Class=1)
59	1	00 3B	0 ~ 3	Destination Effect	
60	1	00 3C	0 ~ 122	Effect Controller	
61	1	00 3D	0 ~ 9	Mod Effect Type	
62	1	00 3E	0 ~ 1	Elem1 on/off	VL1,1-m only
63	1	00 3F	0 ~ 1	Elem2 on/off	VL1,1-m only
64~73		00 40 ~ 00 49	Refer to Table 5.1.1 Mod Effect no.0 ~ 9.		
74	1	00 4A	0 ~ 1	FBD/Reverb Mode	
75	1	00 4B	0 ~ 3	FBD Type	
76	1	00 4C	0 ~ 100	FBD Return	
77~94		00 4D ~ 00 5E	Refer to Table 5.1.2 FBD no.0 ~ 17.		
95	1	00 5F	0 ~ 8	Reverb Type	
96~105		00 60 ~ 00 69	Refer to Table 5.1.3 Reverb no.0 ~ 9.		
106~107		00 6A ~ 00 6B		reserve	

Table 5.1.1 Modulation Effect

Flanger

no.	c	v	name
0	1	0 ~ 2	Wave
1	1	0 ~ 127	Freq
2	1	0 ~ 100	Depth
3	1	0 ~ 126	Delay
4	1	-8 ~ 8	Phase
5	2	-100 ~ 100	FB Gain
7	1	0 ~ 9	High
8	1	0 ~ 10	Analog Feel
9	1	0 ~ 100	Wet/Dry Balance

Pitch Change

no.	c	v	name
0	1	0 ~ 1	Mode
1	1	-12 ~ 12	Pitch 1
2	2	-100 ~ 100	Fine 1
4	1	0 ~ 100	Out 1
5	1	-12 ~ 12	Pitch 2
6	2	-100 ~ 100	Fine 2
8	1	0 ~ 100	Out 2
9	1	0 ~ 100	Wet/Dry Balance

Distortion

no.	c	v	name
0	1	0 ~ 100	Overdrive
1~2			reserve
3	1	0 ~ 4	Device
4	1	0 ~ 5	Speaker
5	1	-10 ~ 10	Presence
6	1	0 ~ 100	Output Level
7~9			reserve

Chorus

no.	c	v	name
0	1	0 ~ 1	Mode
1	1	0 ~ 127	Freq
2	1	0 ~ 100	Depth
3	1	0 ~ 126	Delay
4	2	-100 ~ 100	FB Gain
6	1	0 ~ 9	High
7	1	0 ~ 100	Wet/Dry Balance
8~9			reserve

Phaser

no.	c	v	name
0	1	0 ~ 1	Mode
1	1	0 ~ 1 (0 ~ 3)	Stage (Mode=0)
2	1	0 ~ 127	Freq
3	1	0 ~ 100	Depth
4	1	0 ~ 100	Offset
5	1	-8 ~ 8 (0 ~ 1)	Phase (Diffusion when Mode=0)
6	2	-100 ~ 100	FB Gain
8	1	0 ~ 100	Wet/Dry Balance
9			reserve

Symphonic

no.	c	v	name
0	1	0 ~ 1	Mode
1	1	0 ~ 127	Freq
2	1	0 ~ 100	Depth
3	1	0 ~ 10	Diffusion
4	1	0 ~ 12	Lo-Fi
5	1	0 ~ 100	Wet/Dry Balance
6~9			reserve

Celeste

no.	c	v	name
0	1	0 ~ 1	Mode
1	1	0 ~ 127	Freq
2	1	0 ~ 100	Depth
3	1	0 ~ 126	Delay
4	2	-100 ~ 100	FB Gain
6	1	0 ~ 12	Lo-Fi
7	1	0 ~ 100	Wet/Dry Balance
8~9			reserve

Distortion+Flanger

no.	c	v	name
0	1	0 ~ 100	Overdrive
1	1	0 ~ 5	Speaker
2	1	0 ~ 100	Output Level
3	1	0 ~ 127	Freq
4	1	0 ~ 100	Depth
5	1	0 ~ 126	Delay
6	1	-8 ~ 8	Phase
7	1	0 ~ 100	FB Gain
8	1	0 ~ 9	High
9	1	0 ~ 100	Flanger Balance

Distortion+Wah

no.	c	v	name
0	1	0 ~ 100	Overdrive
1	1	0 ~ 5	Speaker
2	1	0 ~ 100	Output Level
3	1	0 ~ 3	Mode
4	1	0 ~ 1	Wah Pre/Post
5	1	0 ~ 127	Cutoff Freq
6	1	0 ~ 127	Resonance
7	1	0 ~ 100	Sens
8~9			reserve

Table 5.1.2 Feedback Delay

Mono

no.	c	v	name
0~5			reserve
6	2	0 ~1024	Delay Time
8	1	0 ~ 100	Level
9	2	0 ~1024	FB Delay Time
11	1	0 ~ 100	FB Gain
12	1	0 ~ 9	High
13~17			reserve

L/R

no.	c	v	name
0	2	0 ~ 512	Lch Delay Time
2	1	0 ~ 100	Lch FB Gain
3	1	0 ~ 9	Lch High
4	1	0 ~ 100	Lch Level
5	2	0 ~ 512	Rch Delay Time
7	1	0 ~ 100	Rch FB Gain
8	1	0 ~ 9	Rch High
9	1	0 ~ 100	Rch Level
10~17			reserve

L/C/R

no.	c	v	name
0	2	0 ~1024	Lch Delay Time
2	1	0 ~ 100	Lch Level
3	2	0 ~1024	Rch Delay Time
5	1	0 ~ 100	Rch Level
6	2	0 ~1024	Cch Delay Time
8	1	0 ~ 100	Cch Level
9	2	0 ~1024	FB Delay Time
11	1	0 ~ 100	FB Gain
12	1	0 ~ 9	High
13~17			reserve

Table 5.1.3 Reverberation

no.	c	v	name
0	1	0 ~ 100	Return
1	1	0 ~ 95	Reverb Time
2	1	0 ~ 9	High Control
3	1	0 ~ 10	Diffusion
4	2	0 ~ 405	Initial Delay
6	1	-21 ~ 12	Treble
7	1	-21 ~ 12	Bass
8	1	0 ~ 3	Feel
9	1	0 ~ 10	Reverb Time Boost

Table 5.2 Element Parameters

no.	c	p	v	name
0	1	00 00	0 ~ 124	Pressure Control
1	1	00 01	-16 ~ 16	Pressure Curve
2	2	00 02	-127 ~ 127	Pressure Depth
4	1	00 04	0 ~ 124	Embouchure Control
5	1	00 05	0 ~ 1	Embouchure Mode
6	2	00 06	-127 ~ 127	Embouchure Upper Depth
8	2	00 08	-127 ~ 127	Embouchure Lower Depth
10	1	00 0A	0 ~ 124	Pitch Control
11	1	00 0B	0 ~ 1	Pitch Mode
12	1	00 0C	-12 ~ 12	Pitch Upper Depth
13	1	00 0D	-12 ~ 12	Pitch Lower Depth
14	1	00 0E	0 ~ 124	Vibrato Control
15				reserve
16	2	00 10	-127 ~ 127	Vibrato Depth
18	1	00 12	0 ~ 124	Tonguing Control
19	1	00 13	-16 ~ 16	Tonguing Curve
20	2	00 14	-127 ~ 127	Tonguing Depth
22	1	00 16	0 ~ 124	Amplitude Control
23	1	00 17	-16 ~ 16	Amplitude Curve
24	2	00 18	-127 ~ 127	Amplitude Depth
26	1	00 1A	0 ~ 124	Scream Control
27	1	00 1B	0 ~ 127	Scream Value
28	1	00 1C	-16 ~ 16	Scream Curve
29	2	00 1D	-127 ~ 127	Scream Depth
31	1	00 1F	0 ~ 124	B.Noise Control
32	1	00 20	0 ~ 127	B.Noise Value
33	1	00 21	-16 ~ 16	B.Noise Curve
34	2	00 22	-127 ~ 127	B.Noise Depth
36	1	00 24	0 ~ 124	Growl Control
37	1	00 25	0 ~ 127	Growl Value
38	1	00 26	-16 ~ 16	Growl Curve
39	2	00 27	-127 ~ 127	Growl Depth
41	1	00 29	0 ~ 124	T.Formant Control
42	1	00 2A	0 ~ 127	T.Formant Value
43	1	00 2B	-16 ~ 16	T.Formant Curve
44	2	00 2C	-127 ~ 127	T.Formant Depth
46	1	00 2E	0 ~ 124	D.Filter Control
47	1	00 2F	-16 ~ 16	D.Filter Curve

48	2	00 30	-127 ~ 127	D.Filter Depth
50	1	00 32	0 ~ 124	H.Enhancer Control
51	1	00 33	-16 ~ 16	H.Enhancer Curve
52	2	00 34	-127 ~ 127	H.Enhancer Depth
54	1	00 36	0 ~ 124	Damping Control
55	1	00 37	-16 ~ 16	Damping Curve
56	2	00 38	-127 ~ 127	Damping Depth
58	1	00 3A	0 ~ 124	Absorption Control
59	1	00 3B	-16 ~ 16	Absorption Curve
60	2	00 3C	-127 ~ 127	Absorption Depth
62	1	00 3E	0 ~ 1	Trigger Mode
63	1	00 3F	0 ~ 96	Xfade Speed
64	1	00 40	0 ~ 50	Interpolate Speed
65	1	00 41	0 ~ 127	B.Noise Level
66	1	00 42	0 ~ 127	Break Point 1
67	1	00 43	-64 ~ 63	Offset 1
68~77		00 44 ~ 00 4D		Break Point/Offset 2~6
78	1	00 4E	0 ~ 125	B.Noise HPF
79	1	00 4F	0 ~ 127	Break Point 1
80	1	00 50	-64 ~ 63	Offset 1
81~82		00 51 ~ 00 52		Break Point/Offset 2
83	1	00 53	0 ~ 127	B.Noise LPF
84	1	00 54	0 ~ 127	Break Point 1
85	1	00 55	-64 ~ 63	Offset 1
86~87		00 56 ~ 00 57		Break Point/Offset 2
88	1	00 58	0 ~ 22	B.Noise Noise
89	1	00 59	0 ~ 1	B.Noise Key On Reset
90	1	00 5A	0 ~ 32	B.Noise Slit Drive
91	1	00 5B	-64 ~ 63	B.Noise Control Balance
92	1	00 5C	0 ~ 1	T.Formant Pitch Tracking
93	2	00 5D	0~176(-128~127)	T.Formant Pitch (Tracking=1)
95	1	00 5F	0 ~ 127	Break Point 1
96	2	00 60	-127 ~ 127	Offset 1
98~118		00 62 ~ 00 76		Break Point/Offset 2~8
119	2	00 77	-127 ~ 127	T.Formant Intens
121	1	00 79	0 ~ 127	Break Point 1
122	2	00 7A	-127 ~ 127	Offset 1
124~132		00 7C ~ 01 04		Break Point/Offset 2~4
133	1	01 05	-64 ~ 63	T.Formant Amount
134	1	01 06	0 ~ 127	Break Point 1
135	1	01 07	-64 ~ 63	Offset 1
136~141		01 08 ~ 01 0D		Break Point/Offset 2~4
142	1	01 0E	0 ~ 125	T.Formant HPF
143	1	01 0F	0 ~ 127	Break Point 1
144	1	01 10	-64 ~ 63	Offset 1
145~148		01 11 ~ 01 14		Break Point/Offset 2~3
149	1	01 15	0 ~ 127	T.Formant LPF
150	1	01 16	0 ~ 127	Break Point 1
151	1	01 17	-64 ~ 63	Offset 1
152~155		01 18 ~ 01 1D		Break Point/Offset 2~3
156	1	01 1C	0 ~ 127	Driver Output
157	1	01 1D	0 ~ 127	Break Point 1
158	1	01 1E	-64 ~ 63	Offset 1
159~168		01 1F ~ 01 28		Break Point/Offset 2~6
169	1	01 29	0 ~ 127	Pipe/String Output
170	1	01 2A	0 ~ 127	Break Point 1
171	1	01 2B	-64 ~ 63	Offset 1
172~181		01 2C ~ 01 35		Break Point/Offset 2~6
182	1	01 36	0 ~ 127	Tap Output
183	1	01 37	0 ~ 127	Break Point 1
184	1	01 38	-64 ~ 63	Offset 1
185~194		01 39 ~ 01 42		Break Point/Offset 2~6
195	1	01 43	0 ~ 1	Tap Sign
196	1	01 44	0 ~ 4	Tap Setting
197	1	01 45	0 ~ 127	Tap Location
198	1	01 46	0 ~ 127	Break Point 1
199	1	01 47	-64 ~ 63	Offset 1
200~213		01 48 ~ 01 55		Break Point/Offset 2~8
214	1	01 56	0 ~ 127	Amplitude Level
215	1	01 57	0 ~ 127	Break Point 1
216	1	01 58	-64 ~ 63	Offset 1
217~230		01 59 ~ 01 66		Break Point/Offset 2~8
231~240		01 67 ~ 01 70	32 ~ 126	Element Name 1~10
241~707		01 71 ~ 05 43		reserve
708	2	05 44	-127 ~ 127	Excitation Level To Pipe/String
710	1	05 46	0 ~ 127	Break Point 1
711	2	05 47	-127 ~ 127	Offset 1
713~718		05 49 ~ 05 4E		Break Point/Offset 2~3
719~725		05 4F ~ 05 55		reserve
726	2	05 56	-127 ~ 127	Excitation Level To Driver
728	1	05 58	0 ~ 127	Break Point 1
729	2	05 59	-127 ~ 127	Offset 1
731~736		05 5B ~ 05 60		Break Point/Offset 2~3
737	1	05 61	0 ~ 127	Excitation LPF Cutoff Freq
738	1	05 62	0 ~ 127	Break Point 1
739	1	05 63	-64 ~ 63	Offset 1
740~743		05 64 ~ 05 67		Break Point/Offset 2~3
744	1	05 68	0 ~ 16	Excitation Velo Sens To Level
745	1	05 69	0 ~ 16	Excitation Velo Sens To LPF
746	1	05 6A	-16 ~ 16	Excitation Velo Sens To P.Width
747	1	05 6B	0 ~ 127	Excitation Pulse Width
748	1	05 6C	0 ~ 127	Break Point 1
749	1	05 6D	-64 ~ 63	Offset 1
750~753		05 6E ~ 05 71		Break Point/Offset 2~3
754		05 72		reserve
755	1	05 73	0 ~ 5	HE Carrier Signal
756	1	05 74	0 ~ 127	HE Carrier HPF
757	1	05 75	0 ~ 127	Break Point 1
758	1	05 76	-64 ~ 63	Offset 1
759~764		05 77 ~ 05 7C		Break Point/Offset 2~4
765	1	05 7D	-64 ~ 63	HE Carrier Overdrive
766	1	05 7E	0 ~ 127	Break Point 1
767	1	05 7F	-64 ~ 63	Offset 1
768~773		06 00 ~ 06 05		Break Point/Offset 2~4
774	1	06 06	0 ~ 127	HE Carrier Level
775	1	06 07	0 ~ 127	Break Point 1
776	1	06 08	-64 ~ 63	Offset 1
777~786		06 09 ~ 06 12		Break Point/Offset 2~6
787	1	06 13	0 ~ 5	HE Modulator Signal
788	1	06 14	0 ~ 127	HE Modulator HPF
789	1	06 15	0 ~ 127	Break Point 1
790	1	06 16	-64 ~ 63	Offset 1
791~792		06 17 ~ 06 18		Break Point/Offset 2
793	1	06 19	-64 ~ 63	HE Modulator Overdrive
794	1	06 1A	0 ~ 127	Break Point 1
795	1	06 1B	-64 ~ 63	Offset 1
796~797		06 1C ~ 06 1D		Break Point/Offset 2
798	1	06 1E	0 ~ 127	HE Modulator Phase
799	1	06 1F	0 ~ 127	HE Modulator Index
800	1	06 20	0 ~ 127	Break Point 1
801	1	06 21	-64 ~ 63	Offset 1
802~807		06 22 ~ 06 27		Break Point/Offset 2~4
808	1	06 28	-64 ~ 63	HE Balance
809	1	06 29	0 ~ 127	Break Point 1
810	1	06 2A	-64 ~ 63	Offset 1
811~816		06 2B ~ 06 30		Break Point/Offset 2~4
817	1	06 31	0 ~ 3	DF Filter Mode
818	1	06 32	0 ~ 127	DF Input Gain
819	1	06 33	0 ~ 1	DF Cutoff Tracking
820	1	06 34	0~127(-64~63)	DF Cutoff Freq (Tracking=1)
821	1	06 35	0 ~ 127	Break Point 1
822	1	06 36	-64 ~ 63	Offset 1

823~826		06 37 ~ 06 3A		Break Point/Offset 2~3
827	1	06 3B	0 ~ 127	DF Resonance
828	1	06 3C	0 ~ 127	Break Point 1
829	1	06 3D	-64 ~ 63	Offset 1
830~833		06 3E ~ 06 41		Break Point/Offset 2~3
834	1	06 42	-64 ~ 63	DF Balance
835	1	06 43	0 ~ 127	EQ Input Gain
836	1	06 44	0 ~ 127	EQ HPF
837	1	06 45	0 ~ 127	Break Point 1
838	1	06 46	-64 ~ 63	Offset 1
839~844		06 47 ~ 06 4C		Break Point/Offset 2~4
845	1	06 4D	0 ~ 127	EQ LPF
846	1	06 4E	0 ~ 127	Break Point 1
847	1	06 4F	-64 ~ 63	Offset 1
848~853		06 50 ~ 06 55		Break Point/Offset 2~4
854	1	06 56	-8 ~ 8	EQ Post EQ Boost
855	1	06 57	0 ~ 48	EQ Band1 Freq
856	1	06 58	0 ~ 127	Q
857	1	06 59	-64 ~ 63	Level
858	1	06 5A	22 ~ 70	EQ Band2 Freq
859~860		06 5B ~ 06 5C		Q and Level
861	1	06 5D	42 ~ 90	EQ Band3 Freq
862~863		06 5E ~ 06 5F		Q and Level
864	1	06 60	64 ~ 112	EQ Band4 Freq
865~866		06 61 ~ 06 62		Q and Level
867	1	06 63	84 ~ 127	EQ Band5 Freq
868~869		06 64 ~ 06 65		Q and Level
870	1	06 66	0 ~ 1	IE on/off
871	1	06 67	0 ~ 127	IE Density
872	1	06 68	0 ~ 127	IE Dispersion
873	1	06 69	0 ~ 16	IE Roughness
874	1	06 6A	0 ~ 127	IE Wet Level
875	1	06 6B	-64 ~ 63	IE Level Balance
876	1	06 6C	0 ~ 1	RSN on/off
877	1	06 6D	0 ~ 127	RSN Input Gain
878~887	2	06 6E ~ 06 77	0 ~ 1023	RSN Delay Time 1~5
888	1	06 78	0 ~ 127	RSN Decay Time
889	1	06 79	0 ~ 127	RSN LPF
890	1	06 7A	-64 ~ 63	RSN Conjunction
891	1	06 7B	0 ~ 16	RSN Diffusion
892	1	06 7C	-16 ~ 16	RSN Phase
893	1	06 7D	0 ~ 127	RSN Wet Level
894	1	06 7E	-64 ~ 63	RSN Level Balance
895	1	06 7F	0 ~ 127	IE&RSN Dry Level
896	1	07 00	-16 ~ 16	Pres EG Attack Rate Offset
897	1	07 01	-16 ~ 16	Pres EG Release Rate Offset
898	1	07 02	0 ~ 16	Pres EG Velocity Sens To Level
899	1	07 03	0 ~ 16	Pres EG Velocity Sens To Rate
900~953		07 04 ~ 07 39		reserve
954	1	07 3A	0 ~ 2	Pres EG Mode
955	1	07 3B	0 ~ 16	E&P EG Velocity Sens To Level
956	1	07 3C	-16 ~ 16	E&P EG Velocity Sens To Rate
957	1	07 3D	0 ~ 127	E&P EG Hold Time
958	1	07 3E	0 ~ 127	Break Point 1
959	1	07 3F	-64 ~ 63	Offset 1
960~961		07 40 ~ 07 41		Break Point/Offset 2
962	1	07 42	-64 ~ 63	E&P EG Initial Level
963	1	07 43	0 ~ 127	Break Point 1
964	1	07 44	-64 ~ 63	Offset 1
965~966		07 45 ~ 07 46		Break Point/Offset 2
967	1	07 47	0 ~ 127	E&P EG Attack Rate
968	1	07 48	0 ~ 127	Break Point 1
969	1	07 49	-64 ~ 63	Offset 1
970~971		07 4A ~ 07 4B		Break Point/Offset 2
972	1	07 4C	0 ~ 127	E&P EG Attack Level
973	1	07 4D	0 ~ 127	Break Point 1
974	1	07 4E	-64 ~ 63	Offset 1
975~976		07 4F ~ 07 50		Break Point/Offset 2
977	1	07 51	0 ~ 127	E&P EG Decay Rate
978	1	07 52	0 ~ 127	Break Point 1
979	1	07 53	-64 ~ 63	Offset 1
980~981		07 54 ~ 07 55		Break Point/Offset 2
982	1	07 56	0 ~ 64	E&P EG Depth To Embouchure
983	1	07 57	0 ~ 64	E&P EG Depth To Pitch
984	1	07 58	0 ~ 127	Vibrato Delay Time
985	1	07 59	0 ~ 127	Break Point 1
986	1	07 5A	-64 ~ 63	Offset 1
987~988		07 5B ~ 07 5C		Break Point/Offset 2
989	1	07 5D	0 ~ 127	Vibrato Attack Rate
990	1	07 5E	0 ~ 127	Break Point 1
991	1	07 5F	-64 ~ 63	Offset 1
992~993		07 60 ~ 07 61		Break Point/Offset 2
994	1	07 62	0 ~ 127	Vibrato Sustain Level
995	1	07 63	0 ~ 127	Vibrato Depth
996	1	07 64	0 ~ 127	Break Point 1
997	1	07 65	-64 ~ 63	Offset 1
998~999		07 66 ~ 07 67		Break Point/Offset 2
1000	1	07 68	0 ~ 127	Vibrato Depth To Embouchure
1001	1	07 69	0 ~ 127	Vibrato Depth To Pitch
1002	2	07 6A	-127 ~ 127	Vibrato Offset
1004	1	07 6C	0 ~ 127	Vibrato Speed
1005	1	07 6D	0 ~ 127	Break Point 1
1006	1	07 6E	-64 ~ 63	Offset 1
1007~1008		07 6F ~ 07 70		Break Point/Offset 2
1009	1	07 71	0 ~ 16	Vibrato Speed Shift
1010	1	07 72	0 ~ 10	Vibrato Randomness
1011	1	07 73	0 ~ 127	Growl Depth To Pressure
1012	1	07 74	0 ~ 127	Growl Depth To B.Noise
1013	2	07 75	-127 ~ 127	Growl Offset
1015	1	07 77	0 ~ 127	Growl Speed
1016	1	07 78	0 ~ 127	Break Point 1
1017	1	07 79	-64 ~ 63	Offset 1
1018~1019		07 7A ~ 07 7B		Break Point/Offset 2
1020	1	07 7C	0 ~ 10	Growl Randomns
1021	1	07 7D	0 ~ 16	Growl Speed Shift
1022	1	07 7E	0 ~ 1	Growl Vibrato Sync
1023	1	07 7F	0 ~ 16	A&F EG Velocity Sens To Level
1024	1	08 00	0 ~ 16	A&F EG Velocity Sens To Rate
1025	1	08 01	0 ~ 127	A&F EG Attack Rate 1
1026	1	08 02	0 ~ 127	Break Point 1
1027	1	08 03	-64 ~ 63	Offset 1
1028~1029		08 04 ~ 08 05		Break Point/Offset 2
1030	1	08 06	0 ~ 127	A&F EG Attack Level 1
1031~1034		08 07 ~ 08 0A		Break Point/Offset 1~2
1035	1	08 0B	0 ~ 127	A&F EG Attack Rate 2
1036~1039		08 0C ~ 08 0F		Break Point/Offset 1~2
1040	1	08 10	0 ~ 127	A&F EG Decay Rate
1041~1044		08 11 ~ 08 14		Break Point/Offset 1~2
1045	1	08 15	0 ~ 127	A&F EG Sustain Level
1046~1049		08 16 ~ 08 19		Break Point/Offset 1~2
1050	1	08 1A	0 ~ 127	A&F EG Release Rate
1051~1054		08 1B ~ 08 1E		Break Point/Offset 1~2
1055	1	08 1F	0 ~ 127	A&F EG Depth To Amplitude
1056	2	08 20	-127 ~ 127	A&F EG Depth To Filter
1058~1479		08 22 ~ 0B 47		reserve

Table 5.3 System Parameters

no.	c	p	v	name	
0~19	1	00 00 ~ 00 13	32 ~ 126	Greeting Message 1~20	
20	1	00 14	-12 ~ 12	Keyboard Transpose	VL1,7 only
21	1	00 15	0 ~ 1	Local on/off	
22	1	00 16	0 ~ 3	Octave Switch Hold	VL1,7 only
23	1	00 17	-64 ~ 63	Master Tuning	
24	1	00 18	0 ~ 1	Memory Protect	
25	1	00 19	0 ~ 1	Reverb	
26	1	00 1A	0 ~ 1	Output	
27	1	00 1B	0 ~ 127	Velocity Curve	VL1,7 only
28	1	00 1C	-16 ~ 17	After Touch Curve	VL1,7 only
29	1	00 1D	-16 ~ 17	Breath Control Curve	
30	1	00 1E	0 ~ 119	Modulation Wheel 2	VL1,7 only
31	1	00 1F	0 ~ 120	Foot Switch 1	VL1,7 only
32	1	00 20	0 ~ 120	Foot Switch 2	VL1,7 only
33	1	00 21	0 ~ 119	Foot Controller 1	VL1,7 only
34	1	00 22	0 ~ 119	Foot Controller 2	VL1,7 only
35	1	00 23	0 ~ 119	Breath Controller	VL1,7 only
36	1	00 24	0 ~ 15	Transmit Channel	
37	1	00 25	0 ~ 16	Receive Channel	
38	1	00 26	0 ~ 17	Device Number	
39	1	00 27	0	reserve	
40	1	00 28	0 ~ 1	Display	
41	1	00 29	0 ~ 1	Confirm	
42	1	00 2A	0 ~ 1	WX Lip	
43	1	00 2B	0 ~ 2	Breath Mode	
44	1	00 2C	0 ~ 127	Touch EG Time	
45	1	00 2D	0 ~ 127	After Touch High Offset	
46	1	00 2E	-7 ~ 7	After Touch High Gain	
47	1	00 2F	0 ~ 127	After Touch Low Offset	
48	1	00 30	-7 ~ 7	After Touch Low Gain	
49	1	00 31	0 ~ 127	Velocity Offset	
50	1	00 32	-7 ~ 7	Velocity Gain	
51~63	00 33 ~ 00 3F		0	reserve	

Master Tuning of System Parameters can only be performed during reception. Transmission will be performed using the 4.4 DX1 Master Tuning Compatibility format. In addition, Device Number Parameter Change cannot be received or transmission.

Table 5.4 Micro Tuning Parameters

no.	c	p	v	name
0~254	2	00 00 ~ 01 7E	0 ~ 10794	C-2~G8
256~265	1	02 00 ~ 02 09	32 ~ 126	Table Name 1~10

Table 5.5 Remote Switch

no.	c	p	name	
0	1	00 00	PLAY	
1	1	00 01	EDIT	
2	1	00 02	UTILITY	
3	1	00 03	COPY	
4	1	00 04	STORE	
5	1	00 05	Data Dial -1	
6	1	00 06	Data Dial +1	
7	1	00 07	Data Dial -16	
8	1	00 08	Data Dial +16	
9	1	00 09	DEC	
10	1	00 0A	CURSOR UP	
11	1	00 0B	INC	
12	1	00 0C	CURSOR LEFT	
13	1	00 0D	CURSOR DOWN	
14	1	00 0E	CURSOR RIGHT	
15	1	00 0F	EXIT	
16	1	00 10	ENTER	
17~24	1	00 11~18	F1~F8	
25~28	1	00 19~1C	A~D	VL1,7 only
29~32	1	00 1D~20	E~H	VL1 only
33~48	1	00 21~30	1~16	VL1,7 only

value 0 ~ 63 : off
value 64 ~ 127 : on

Table 5.6 Program Change Table Parameters (VL1-m only)

no.	c	p	v	name
0~127	1	00 00~7F	0 ~ 127	001~128

Table 5.7 Element, Effect and Modifier on/off

no.	c	p	name	
0	1	00 00	Element 1 on/off	VL1,1-m only
1	1	00 01	Element 2 on/off	VL1,1-m only
2	1	00 02	Modulation Effect on/off	
3	1	00 03	Feedback Delay on/off	
4	1	00 04	Reverberation on/off	
5	1	00 05	Harmonic Enhancer on/off	
6	1	00 06	Dynamic Filter on/off	
7	1	00 07	Equalizer on/off	
8	1	00 08	Impulse Expander on/off	
9	1	00 09	Resonator on/off	

value 0 ~ 63 : off
value 64 ~ 127 : on

YAMAHA [Virtual Acoustic Synthesizer] Date:10-NOV-1995
Model VL1 MIDI Implementation Chart Version : 2.0

Function ...		Transmitted	Recognized	Remarks
Basic Channel	Default	1 - 16	1 - 16	Memorized
	Changed	1 - 16	1 - 16	
Mode	Default	3	1 - 4	Memorized
	Messages	x	x	
	Altered	**********	x	
Note Number		24 - 120	0 - 127	Transpose and
	True voice	**********	1 - 127	Octave switch
Velocity	Note ON	o 9nH,v=1-127	o v=1-127	
	Note OFF	x 9nH,v=0	x	
After Touch	Key's	x	x	
	Ch's	o	o	
Pitch Bender		o	o 0-12 semi	7 bit resolution
Control Change	1	o M.Wheel 1	o	
	5	x	o	Portamento time
	7	x	o	Main volume
	16	o CS 1	o	Gen.pur.cont.1
	17	o CS 2	o	Gen.pur.cont.2
	64	x	o	Sustain
	65	x	o	Portamento SW
	1-31	o Assignable *1	o	
	33-119	o Assignable *1	o	
	121	x	o	Reset All Cntrls
Prog Change	True #	o 0 -127 **********	o 0 - 127 0 - 127	
System Exclusive		o *2	o *2	Voice,System
System Common	Song Pos	x	x	
	Song Sel	x	x	
	Tune	x	x	
System Real Time	Clock	x	x	
	Commands	x	x	
Aux Mes- sages	Local ON/OFF	x	x	
	All Notes OFF	x	x	
	Active Sense	o	o	
	Reset	x	x	

Notes: *1 Assignable controllers are M.Wheel 2, Foot cont.1&2, Foot SW1&2 and Breath controller.
*2 Transmit/receive if device No. is not off.

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO o : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO x : No

YAMAHA [Virtual Acoustic Tone Generator] Date:10-NOV-1995
Model VL1-m MIDI Implementation Chart Version : 2.0

Function ...		Transmitted	Recognized	Remarks
Basic	Default	1 - 16	1 - 16	Memorized
Channel	Changed	1 - 16	1 - 16	
Mode	Default	3	1 - 4	Memorized
	Messages	x	x	
	Altered	**********	x	
Note Number		x	0 - 127	
	True voice	**********	0 - 127	
Velocity	Note ON	x	o v=1-127	
	Note OFF	x	x	
After Touch	Key's	x	x	
	Ch's	x	o	
Pitch Bender		x	o 0-12 semi	7 bit resolution
Control Change	2	o	o	Breath cont.
	5	x	o	Portamento time
	7	x	o	Main volume
	16	x	o	Gen.pur.cont.1
	17	x	o	Gen.pur.cont.2
	64	x	o	Sustain
	65	x	o	Portamento SW
	1-31	x	o	
	33-119	x	o	
	121	x	o	Reset All Cntrls
Prog Change		x	o 0 - 127	
	True #	**********	0 - 127	
System Exclusive		o *1	o *1	Voice,System
System Common	Song Pos	x	x	
	Song Sel	x	x	
	Tune	x	x	
System Real Time	Clock	x	x	
	Commands	x	x	
Aux Mes- sages	Local ON/OFF	x	x	
	All Notes OFF	x	x	
	Active Sense	x	o	
	Reset	x	x	

Notes: *1 Transmit/receive if device No. is not off.

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO o : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO x : No

YAMAHA [Virtual Acoustic Synthesizer] Date:10-NOV-1995
Model VL7 MIDI Implementation Chart Version : 2.0

Function ...		Transmitted	Recognized	Remarks
Basic	Default	1 - 16	1 - 16	Memorized
Channel	Changed	1 - 16	1 - 16	
Mode	Default	3	1 - 4	Memorized
	Messages	x	x	
	Altered	**********	x	
Note Number		24 - 120	0 - 127	Transpose and
	True voice	**********	1 - 127	Octave switch
Velocity	Note ON	o 9nH, v=1-127	o v=1-127	
	Note OFF	x 9nH, v=0	x	
After Touch	Key's	x	x	
	Ch's	o	o	
Pitch Bender		o	o 0-12 semi	7 bit resolution
Control Change	1	o M.Wheel 1	o	
	5	x	o	Portamento time
	7	x	o	Main volume
	16	o CS 1	o	Gen.pur.cont.1
	17	o CS 2	o	Gen.pur.cont.2
	64	x	o	Sustain
	65	x	o	Portamento SW
	1-31	o Assignable *1	o	
	33-119	o Assignable *1	o	
	121	x	o	Reset All Cntrls
Prog Change		o 0 -63	o 0 - 127	
	True #	**********	0 - 63	
System Exclusive		o *2	o *2	Voice, System
System Common	Song Pos	x	x	
	Song Sel	x	x	
	Tune	x	x	
System Real Time	Clock	x	x	
	Commands	x	x	
Aux Mes-sages	Local ON/OFF	x	x	
	All Notes OFF	x	x	
	Active Sense	o	o	
	Reset	x	x	

Notes: *1 Assignable controllers are M.Wheel 2, Foot cont.1&2, Foot SW1&2 and Breath controller.
*2 Transmit/receive if device No. is not off.

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO o : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO x : No

YAMAHA

YAMAHA CORPORATION

512POCP6.2-01A0 Printed in Japan