



# VH Effect Editor

## Manual

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### Important Notices

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The VH Effect Editor provides an easy, intuitive way to edit the Harmony effect settings of the PLG100-VH Vocal Harmony Plug-in Board.

#### NOTE

- Do not use any of the panel controls on an external tone generator while editing the Harmony effect with the VH Effect Editor, since this may inadvertently change the settings of the PLG100-VH.

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#### About this manual

- The screens shown in this manual are almost all on Windows systems. Although some screens may differ for Macintosh systems, the basic operations are the same.
- Keyboard shortcuts referred in this manual are effective for only Windows system.

#### For Windows users

When you use the VH Effect Editor, set "Font Size" to "Small Fonts" at the "Control Panel | Display | (Settings |) Advanced" page. If "Large Fonts" is selected, messages in some dialog boxes may not be displayed properly.

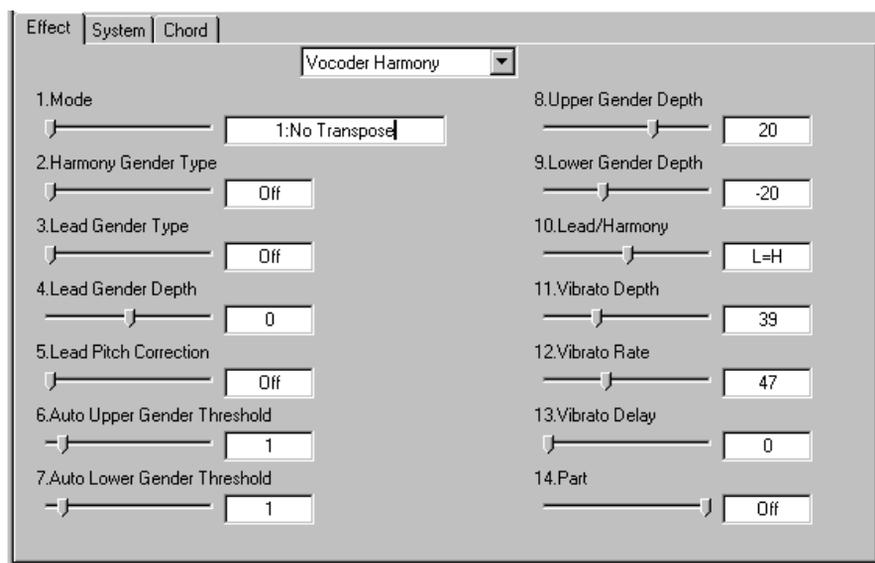
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YAMAHA CORPORATION

# About the VH Effect Editor

The VH Effect Editor is providing an exceptionally simple and convenient way to edit and control the PLG100-VH Vocal Harmony Plug-in Board. It also features comprehensive, detailed control of the Harmony effect by giving you access to all of the “hidden” parameters of the PLG100-VH.



## Setting up with XG Plug-in System “mother” device (MU series, etc.)

### ■ Microphone Setup.....

- 1 Connect a microphone to the A/D INPUT jack.
- 2 Select Part “A1,” then select the “Mic” preset (bank #000, program #002).

### ■ MIDI Setup.....

If you wish to control the Harmony effect from a MIDI keyboard or with song data played on a MIDI sequencer, make the following MIDI-related settings.

#### NOTE

- MIDI is used only when the Harmony Type is set to **Vocoder** or **Chordal**. For the **Detune** and **Chromatic** types, Harmony is unaffected by a connected MIDI device.

#### 1 Set up the MIDI keyboard or sequencer.

Connect the MIDI OUT of the MIDI device to MIDI IN of the tone generator/sound card. Set the device’s MIDI transmit channel to 1 (or to the same channel you’ll be setting in step #2 below).

#### 2 Set the Harmony Channel.

This determines the MIDI receive channel for the Harmony effect, and should be set to the same value as set for the MIDI device in step #1 above.

#### 3 Assign the Harmony effect to the desired Part (with the Part parameter).

#### 4 Disable all other Parts set to the same channel as the Harmony Channel.

You’ll want to make sure that the connected keyboard or sequencer doesn’t sound any of the instrument Parts of the tone generator/sound card. If one or more Parts are set to the same MIDI channel (as set in step #2 above), change the MIDI channel setting of the Part(s), mute them, or set the volume of each Part to 0.

#### 5 Set the Harmony Type to Vocoder or Chordal.

### ■ Easy Setup.....

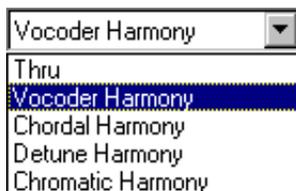
You can quickly and easily make many of the above settings directly from the VH Effect Editor, with the **Easy Setup** dialog box.

## Setting up with Modular Synthesis Plug-in System “mother” device (S80, MOTIF series, etc.)

- 1 Connect a microphone to the A/D INPUT jack of the “mother” device.
- 2 Make the appropriate settings on the “mother” device — ensuring that the signal received via the A/D INPUT jack is properly sent to the PLG100-VH.  
(For details, refer to the owner’s manual of your particular “mother” device.)

## About the Harmony Types

The Harmony effect features four separate types: **Vocoder**, **Chordal**, **Detune**, and **Chromatic**.



The **Vocoder** type produces up to three harmony notes, corresponding to the notes you play on a connected MIDI keyboard. In other words, you can sing the melody and “play” the harmony or harmonies from the keyboard (or from a sequencer).

The **Chordal** type produces up to three harmony notes that correspond to the chords you play on a connected MIDI keyboard (or chords recorded to a sequencer). Thirty-four different **chord types** are recognized in this mode.

The **Detune** type produces a slightly “detuned” pitch and mixes it with the input signal for a rich chorusing effect.

The **Chromatic** type produces a harmony at a predetermined, fixed pitch interval from the original sound (such as an octave, or a third).

When the Type is set to **Thru**, no Harmony effect is applied, and the only other available parameter is Insert Part.

## Applying Vocoder Harmony

The **Vocoder** type allows you to “play” up to three harmony notes from a connected MIDI keyboard or sequencer.

- 1 Click on the **Effect** tab.
- 2 Set the **Harmony Type** to **Vocoder**.
- 3 Set **Part** to “Ad1.”

**NOTE**

- If you are using a Modular Synthesis Plug-in-compatible tone generator or synthesizer, you’ll need to set the Part Number from the device itself.

- 4 Click on the **System** tab.
- 5 Set the **Harmony Channel** to match the MIDI transmit channel of the connected MIDI keyboard or sequencer.
- 6 Make sure that **Harmony Mute** is set to “off” and that all three **Harmony Volume** settings are set to appropriate levels (90 or greater).

**NOTE**

- When you play the keyboard and sing into the microphone, the harmony or harmonies match the pitch of the notes you play.
- You can create automatic harmonies for an entire song (on sequencer) by recording the appropriate notes to one track of the song.
- The **Mode** parameter gives you access to a wide variety of harmonies by letting you set how the harmonies are transposed.

## Applying Chordal Harmony

The **Chordal** type produces up to three harmony notes according to the chords you play on a connected MIDI keyboard (or chords recorded to a sequencer).

- 1 Click on the **Effect** tab.
- 2 Set the **Harmony Type** to **Chordal**.
- 3 Set **Part** to “Ad1.”

### NOTE

- If you are using a Modular Synthesis Plug-in-compatible tone generator or synthesizer, you'll need to set the Part Number from the device itself.

- 4 Click on the **System** tab.
- 5 Set the **Harmony Channel** to match the MIDI transmit channel of the connected MIDI keyboard or sequencer.
- 6 Make sure that **Harmony Mute** is set to “off” and that all three **Harmony Volume** settings are set to appropriate levels (90 or greater).

### NOTE

- When you play the keyboard and sing into the microphone, the harmonies correspond to the chord you play.
- If you continue to hold your vocal note, the harmony notes will also continue to sound, even after you release the keys.
- You can create automatic chordal harmonies for an entire song (on sequencer) by recording the appropriate chords to one track of the song. The chords can also be specified and input from the **Chord** tab.
- The chord data for controlling the harmonies can be recorded as system exclusive data — eliminating the need for a keyboard or for dedicating a MIDI channel for harmony data.
- The **Mode** parameter gives you access to a variety of harmony styles (Duet, Trio, and Quartet) and various voicings (above and below the original vocal note).

## Applying Detune Harmony

The **Detune** produces a slightly “detuned” pitch and mixes it with the input signal for a chorus-like effect.

- 1 Click on the **Effect** tab.
- 2 Set the **Harmony Type** to **Detune**.
- 3 Set **Part** to “Ad1.”

### NOTE

- If you are using a Modular Synthesis Plug-in-compatible tone generator or synthesizer, you'll need to set the Part Number from the device itself.

- 4 Click on the **System** tab.
- 5 Make sure that **Harmony Mute** is set to “off” and that all three **Harmony Volume** settings are set to appropriate levels (90 or greater).

### NOTE

- When you sing into the microphone, a rich, natural chorus effect is produced.
- The **Mode** parameter lets you change the amount of detuning, letting you set how subtle or dramatic the effect is.
- The gender of the harmony note cannot be changed in Detune.

## Applying Chromatic Harmony

The **Chromatic** type produces a harmony at a specific pitch interval from the original sound.

- 1 Click on the **Effect** tab.
- 2 Set the **Harmony Type** to **Chromatic**.
- 3 Set **Part** to “Ad1.”

### NOTE

- If you are using a Modular Synthesis Plug-in-compatible tone generator or synthesizer, you'll need to set the Part Number from the device itself.

- 4 Click on the **System** tab.
- 5 Make sure that **Harmony Mute** is set to “off” and that all three **Harmony Volume** settings are set to appropriate levels (90 or greater).

### NOTE

- When you sing into the microphone, the Harmony effect produces a single harmony note — at a specified interval from the original vocal note.
- The **Mode** parameter lets you change the amount of pitch shift, or the interval from the original note.

# Parameters

The VH Effect Editor parameters are contained in the three tabs: [Effect](#), [System](#), and [Chord](#).

## Toolbar

The toolbar gives you quick access to some important functions and controls. These buttons let you easily execute the desired function without having to select a menu or leave the VH Effect Editor window.

### NOTE

- This function pertains only to Windows system.



#### Open VH Effect Editor File

This is the same as the corresponding command in the File menu. It lets you select and open an existing VH Effect Editor File. (See File Menus, [Open VH Effect Editor File](#).)



#### Save VH Effect Editor File

This is the same as the corresponding command in the File menu. It lets you save the current VH Effect Editor settings as a parameter file for future recall. (See File Menus, [Save VH Effect Editor File](#).)



#### Insert VH Effect Editor Parameter (Plug-in Editor only)

This is the same as the corresponding command in the Edit menu. It lets you insert the current VH Effect Editor settings to a specified track/position in the XGworks song. (See Edit Menus, [Insert VH Effect Editor Parameter](#).)



#### Copying Chord Events To the Master Track (Plug-in Editor only)

This is the same as the corresponding command in the Edit menu. It lets you select and copy chord events to the the Master Track. (See Edit Menus, [Copying Chord Events To the Master Track](#).)



#### Copying Chord Events From the Master Track (Plug-in Editor only)

This is the same as the corresponding command in the Edit menu. It lets you select and copy chord events from the the Master Track. (See Edit Menus, [Copying Chord Events From the Master Track](#).)



#### VH Effect Editor Setup

This is the same as the corresponding command in the Setup menu. It lets you make various important settings for configuring the VH Effect Editor with the PLG100-VH. (See Setup Menus, [VH Effect Editor Setup](#).)



#### Easy Setup

This is the same as the corresponding command in the Setup menu. It lets you make easy settings for configuring the VH Effect Editor with the PLG100-VH. (See Setup Menus, [Easy Setup](#).)



#### Manual

This is the same as the corresponding command in the Help menu. It lets you open the VH Effect Editor manual.

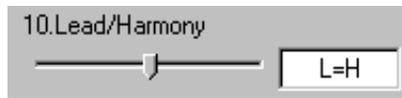
## Setting and Changing Parameter Values

Click on the desired tab: Effect, System, or Chord.

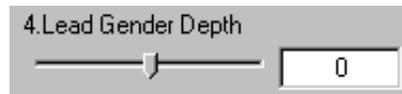
For combo boxes, click the down arrow to expand the box, then highlight the desired setting.



For parameter sliders, click and hold the slider, then drag as desired. Alternately, click and hold any position along the slider path; the slider automatically snaps to the new position.



Most parameters can also be set by typing the value directly in the box. Click on the box, then type the desired value.



## Effect Parameters

### ■ Thru .....

When the Type is set to Thru, no Harmony effect is applied, and the only other available parameter is Insert Part.

### ■ Vocoder Harmony Parameters .....

The Vocoder type produces up to three harmony notes whose pitches correspond to the notes you play on a connected MIDI keyboard. This lets you sing the melody and “play” the harmony or harmonies from the keyboard (or from a sequencer). The Harmony sound can also be transposed (see the [Mode](#) parameter).

#### NOTE

- When more than four MIDI notes are received, priority is given first to the most recently played notes, then the highest notes. (In other words, the harmonies of lower notes and earlier notes are cut off.)

#### HINT

Vocoder Type is best suited when:

- You want to determine the precise harmony notes yourself, including their octave register and whether they are above or below the original melody note.
- You want to use harmony notes and voicings that fall outside the standard chords available in the [Chordal type](#).
- You can play the harmony part on the keyboard, or have it played on a sequencer.
- You want to precisely control how the harmony note or notes change pitch around a fixed melody pitch.

## Vocoder Harmony Parameter Descriptions

### 1. Mode

#### 1: No Transpose (default)

No transposition. The harmony notes correspond exactly to the pitch of the incoming MIDI notes.

#### 2: Auto Transpose

Automatic transposition. This keeps the harmony notes close ( $\pm 600$  cents) in interval to the input signal, no matter which octave the MIDI notes are played.

#### 3: -3 Octave Transpose ... 8: +3 Octave Transpose

Octave transposition. This fixes the octave transposition of the harmony notes, selectable in octaves from 3 octaves below (-) to 3 octaves above (+).

## 2. Harmony Gender Type

**Settings:** Off, Auto

**Default:** Off

This automatically determines the gender of the harmony notes (relative to the actual gender of the singer).

**Off**

This turns off the gender change effect for the harmony notes.

**Auto**

For this setting, the PLG100-VH “listens” to the pitch of your voice to determine your gender, and automatically selects the opposite gender for the harmony notes. Keep in mind that the gender change effect may vary according to the quality, character and pitch of the actual voice.

When “Auto” is set, the operation of the gender change effect is affected by these parameters: [Auto Upper Gender Threshold](#), [Auto Lower Gender Threshold](#), [Upper Gender Depth](#), and [Lower Gender Depth](#).

## 3. Lead Gender Type

**Settings:** Off, Unison, Male, Female

**Default:** Off

These settings determine whether the gender of the lead voice can be changed or not. It also lets you set the gender. When this is set to “Off,” the gender of the lead voice cannot be changed. When this is set to “Unison,” the lead voice is reproduced at the same pitch as the voice; however, the gender can be changed by using the [Lead Gender Depth](#) parameter. The “Male” and “Female” settings reproduce the voice with the respective male or female vocal qualities. (To finely adjust the quality of the lead voice, use the [Lead Gender Depth](#) parameter.)

**NOTE**

- When **Lead Gender Type** is set to “Unison,” “Male,” or “Female,” the amount of harmony notes is reduced from three to two.

### About the Lead and Harmony Voices

The PLG100-VH also produces a “lead” voice sound that can be mixed with the automatically produced harmony voices.

The PLG100-VH in effect “copies” your actual voice to create the lead voice. The lead voice then can be altered both in pitch and gender, just as with the harmony voices.

## Using the Lead Voice

To properly use the lead voice, make sure to set the following parameters:

- Lead Gender Type .....“Unison,” “Male,” or “Female”
- Lead Gender Depth.....Set to desired/appropriate value.
- Lead/Harmony Balance.....Set to appropriate value. (For values at or near the maximum of “L<H63,” lead may not sound.)

You can control the pitch of the lead voice separately from the harmonies. One useful application would be to have melody and harmony data on different tracks/MIDI channels of sequencer song data — the melody track would control the pitch of the lead voice, while the harmony track would control the harmonies. This would ensure that all vocal parts stay in tune with each other and with the song — even if your actual singing is slightly off pitch!

To control the pitch of the lead voice from a connected MIDI keyboard or sequencer (separate from the harmonies), make the following settings:

- Pitch Correction.....“On”
- Melody Channel .....Set to same channel as the MIDI device.(Match this to the melody track of the song data.)
- Harmony Channel .....Set to different value from Melody Channel. (Match this to the harmony track of the song data.)

## 4. Lead Gender Depth

**Range: -64 ... +63**

**Default: 0**

This determines the quality or character of the lead voice, and depends on the setting made in Lead Gender Type. (This parameter has no effect when Lead Gender Type is set to “Off.”) Extreme negative or positive values result in pronounced distortion of the voice quality.

## 5. Lead Pitch Correction

**Settings: Off, On**

**Default: Off**

This determines whether the pitch of the lead voice is controlled by MIDI note data or not. When this parameter and [Lead Gender Type](#) are set to “On,” the pitch of the lead voice is “corrected” to the pitch of the received MIDI note. (This has no effect when Lead Gender Type is set to “Off.”)

### NOTE

- The Pitch Correction parameter is not available when Harmony Type is set to Detune. Also, this parameter has no effect when Lead Gender Type is set to “off.”

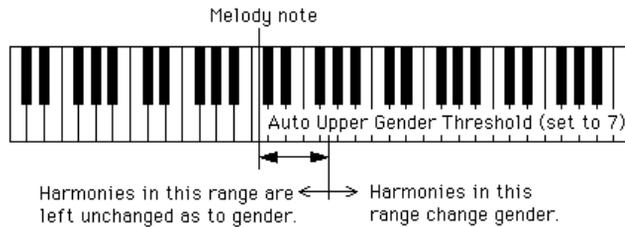
## 6. Auto Upper Gender Threshold

Range: 0 ... 12 (semitones)

Default: 0

This determines which harmony notes above the melody will be gender-transformed when [Harmony Gender Type](#) is set to "Auto." More specifically, it sets the range or interval of unchanged harmonies. When set to "0," the gender of all harmony notes above the melody will be changed. When set to another value, any harmonies within the interval specified will not be changed.

For example, when this is set to 7 semitones, any harmonies a perfect fifth or lower will remain at the same gender as the original vocal.



Used with [Auto Lower Gender Threshold](#), this gives you flexible control over the gender of the harmony notes, both above and below the melody.

### NOTE

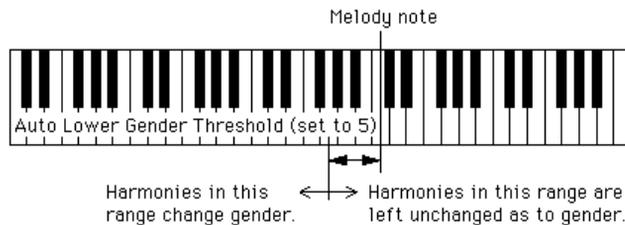
- This parameter has no effect when [Harmony Gender Type](#) is set to "off."

## 7. Auto Lower Gender Threshold

Range: 0 ... 12 (semitones)

Default: 0

This determines which harmony notes below the melody will be gender-transformed when [Harmony Gender Type](#) is set to "Auto." More specifically, it sets the range or interval of unchanged harmonies. When set to "0," the gender of all harmony notes below the melody will be changed. When set to another value, any harmonies within the interval specified will not be changed. For example, when this is set to 5 semitones, any harmonies higher than a fourth below remain at the same gender as the original vocal.



Used with [Auto Upper Gender Threshold](#), this gives you flexible control over the gender of the harmony notes, both above and below the melody.

### NOTE

- This parameter has no effect when [Harmony Gender Type](#) is set to "off."

## 8. Upper Gender Depth

**Range:** -64 ... +63

**Default:** 20

This determines the quality or character of the harmony notes above the melody that are set to automatically change gender — according to the [Harmony Gender Type](#) and [Auto Upper Gender Threshold](#) settings.

Extreme negative or positive values result in pronounced distortion of the voice quality. Also, the effect may vary according to the quality, character and pitch of the actual voice. Experiment with this to find values that sound most natural (or unnatural, if you prefer).

### NOTE

- This parameter has no effect when [Harmony Gender Type](#) is set to “off.”

## 9. Lower Gender Depth

**Range:** -64 ... +63

**Default:** -20

This determines the quality or character of the harmony notes below the melody that are set to automatically change gender — according to the [Harmony Gender Type](#) and [Auto Lower Gender Threshold](#) settings.

Extreme negative or positive values result in pronounced distortion of the voice quality. Also, the effect may vary according to the quality, character and pitch of the actual voice. Experiment with this to find values that sound most natural (or unnatural, if you prefer).

### NOTE

- This parameter has no effect when [Harmony Gender Type](#) is set to “off.”

## 10. Lead/Harmony Balance (Lead/Harm)

**Range:** L63>H (maximum lead level) ... L=H (equal level) ...  
L<H63 (maximum harmony level)

**Default:** L=H

This determines the relative balance of the lead and harmony voices. For most conventional applications, this should be set to “L=H” or a slightly higher lead level (such as “L10>H” or more).

## 11. Vibrato Depth

**Range:** 0 ... 127

**Default:** 39

This determines the depth of the Vibrato effect on the harmony notes and the lead note. (The lead note is not affected when [Lead Gender Type](#) is set to “Off.”) Higher values result in a stronger, more pronounced vibrato sound.

## 12. Vibrato Rate

**Range:** 0 ... 127

**Default:** 47

This determines the speed of the Vibrato effect on the harmony notes and the lead note. (The lead note is not affected when Lead Gender Type is set to “Off.”) Higher values result in a faster vibrato sound.

## 13. Vibrato Delay

**Range:** 0 ... 127

**Default:** 0

This determines the amount of delay in the onset of the Vibrato effect on the harmony notes and the lead note. (The lead note is not affected when [Lead Gender Type](#) is set to “Off.”) Singers often employ a delayed vibrato as they hold notes; this parameter is designed to reproduce that effect, and helps to create a more natural, lifelike sound. Higher values result in a longer delay time.

## 14. Part

**Settings:** Off, Part1 ... 64, Ad1 ... Ad63

**Default:** Off

This determines the Part to which the Harmony effect is applied. For example, to apply Harmony to a microphone input connected to the A/D INPUT, set this to “Ad01.” When set to “Off,” the Harmony effect is cancelled.

### NOTE

- If you are using a Modular Synthesis Plug-in-compatible tone generator, you'll need to set the Part Number from the device itself.

### NOTE

- The number of selectable Parts in this parameter exceeds the actual amount available on the tone generator/sound card. The parameter has these values to accommodate the expanded capacity of future tone generators and boards.

## ■ Chordal Harmony Parameters.....

The Chordal type produces up to three harmony notes that correspond to the chords you play on a connected MIDI keyboard (or chords recorded to a sequencer). For example, if you play a C major triad on the keyboard (with Chordal Mode set to “trio”) and sing a C note, the resulting harmonies will be C, E, and G. Thirty-four different chord types are recognized in this mode (see [Chords Recognized in Chordal Type](#)), giving you an amazingly full and flexible palette of harmonies, suitable for nearly any music style. The number of harmonies produced and their position above or below the melody is set in the Mode parameter.

### NOTE

- When more than four MIDI notes are received, priority is given first to the most recently played notes, then the highest notes. (In other words, the harmonies of lower notes and earlier notes are cut off.)

In general, the Chordal Type is best suited when you want to simply play the chords and have the Harmony effect automatically sort out the suitable notes.

### • Chords Recognized in Chordal Type

C	Maj	min(9)	7(13)
C#	Maj6	min7(9)	7(♭9)
D	Maj7	min7(11)	7(♭13)
D#	Maj7(#11)	minMaj7	7(#9)
E	Maj(9)	minMaj7(9)	Maj7aug
F	Maj7(9)	dim	7aug
F#	Maj6(9)	dim7	1+8
G	aug	7th	1+5
G#	min	7sus4	sus4
A	min6	7♭5	1+2+5
A#	min7	7(9)	
B	min7♭5	7(#11)	

## Chordal Harmony Parameter Descriptions

### 1. Mode

#### 1: Duet Above (default)

Produces one harmony note, in a pitch above the lead note.

#### 2: Duet Below

Produces one harmony note, in a pitch below the lead note.

#### 3: Duet Above + Bass

Produces two harmony notes — one in a pitch above the lead note, and one an octave below the other harmony. (The “+ Bass” in the type name stands for “added bass note.”)

**4: Trio Above**

Produces two harmony notes, in pitches above the lead note.

**5: Trio Above&Below**

Produces two harmony notes — one in a pitch above the lead note, and one below.

**6: Trio Below**

Produces two harmony notes, in pitches below the lead note.

**7: Trio Above&Below + Bass**

Produces three harmony notes — one in a pitch above the lead note, and two below — one of them an octave below the higher harmony. (The “+ Bass” in the type name stands for “added bass note.”)

**8: Quartet Above**

Produces three harmony notes, in pitches above the lead note.

**9: Quartet Above&Below**

Produces three harmony notes — two in pitches above the lead note, and one below.

**10: Quartet Below**

Produces three harmony notes, in pitches below the lead note.

**Other Parameters**

The remaining parameters for the Chordal Type are the same as those for the [Vocoder Type](#).

**NOTE**

- If you are using a Modular Synthesis Plug-in-compatible tone generator, you'll need to set the Part Number (14. Part) from the device itself.

## ■ Detune Harmony Parameters .....

The Detune type produces a slightly “detuned” pitch and mixes it with the input signal for a rich chorusing effect. The amount of the detuning is set in the Mode parameter. MIDI note data from a keyboard or sequencer has no effect in this type.

### Detune Harmony Parameter Descriptions

#### 1. Mode

##### 1: Low Detune (default)

Detunes the pitch by  $\pm 7$  cents (least amount of detuning).

##### 2: Medium-Low Detune

Detunes the pitch by  $\pm 11$  cents.

##### 3: Medium-High Detune

Detunes the pitch by  $\pm 15$  cents.

##### 4: High Detune

Detunes the pitch by  $\pm 20$  cents (most amount of detuning).

#### NOTE

- When Detune is selected, the following parameters are not available:
  2. Harmony Gender Type
  5. Lead Pitch Correction
  6. Auto Upper Gender Threshold
  7. Auto Lower Gender Threshold
  8. Upper Gender Depth
  9. Lower Gender Depth

### Other Parameters

The remaining parameters for the Detune Type are the same as those for the [Vocoder Type](#).

#### NOTE

- If you are using a Modular Synthesis Plug-in-compatible tone generator, you'll need to set the Part Number (14. Part) from the device itself.

## ■ Chromatic Harmony Parameters .....

The Chromatic type produces a harmony at a fixed pitch interval from the original sound (such as an octave, or a third). The amount and direction of the pitch shift is set in the Mode parameter. MIDI note data from a keyboard or sequencer has no effect in this type.

### Chromatic Harmony Parameter Descriptions

#### 1. Mode

##### 1: Octave Below (default)

Produces a harmony note an octave below the input note.

##### 2: 3rd Below

Produces a major third harmony note in the octave below the input note. (Harmony is transposed eight semitones down.)

##### 3: 5th Below

Produces a perfect fifth harmony note in the octave below the input note. (Harmony is transposed five semitones down.)

##### 4: Unison

Produces a “harmony” note at the same pitch as the input note. (This can be clearly distinguished from the original signal by changing the [Harmony Gender Type](#).)

##### 5: 3rd Above

Produces a major third harmony note in the same octave as the input note. (Harmony is transposed four semitones up.)

##### 6: 5th Above

Produces a perfect fifth harmony note in the same octave as the input note. (Harmony is transposed seven semitones up.)

##### 7: Octave Above

Produces a harmony note an octave above the input note.

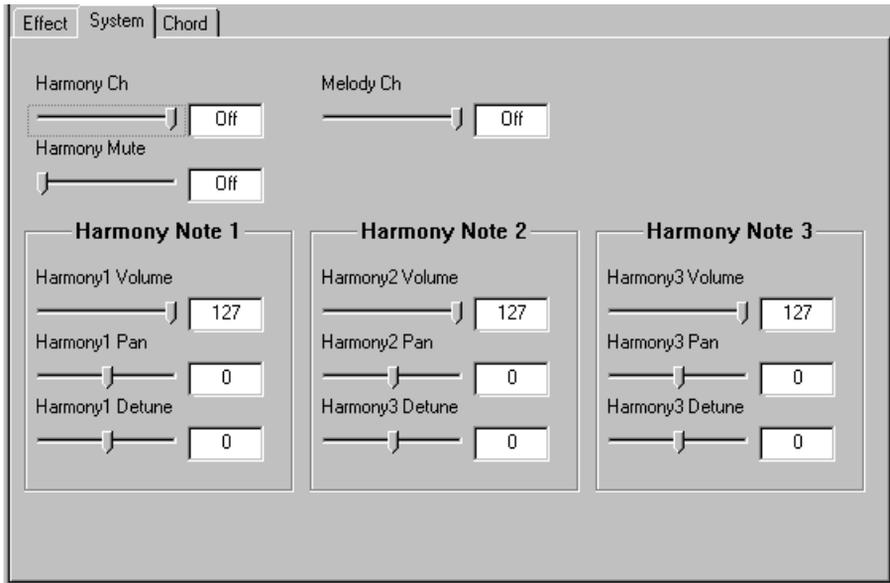
### Other Parameters

The remaining parameters for the Chromatic Type are the same as those for the [Vocoder Type](#).

#### NOTE

- If you are using a Modular Synthesis Plug-in-compatible tone generator, you'll need to set the Part Number (14. Part) from the device itself.

## System Parameters



### Harmony Channel (Harmony Ch)

**Settings:** 1 ... 16, Off

**Default:** Off

This determines the MIDI channel over which the Harmony effect is controlled. For example, when this is set to the same value as the MIDI transmit channel of a connected MIDI keyboard or sequencer, you can use that device to “play” harmonies.

### Harmony Mute

**Settings:** Off, On

**Default:** Off

This determines whether the harmony notes are muted or not. For the harmony notes to be heard, this should be set to “Off.” To mute the harmony notes, set this to “On.” This parameter is intended primarily for sequencer applications, letting you effectively turn the harmonies on and off as needed within a song.

### Melody Channel (Melody Ch)

**Settings:** 1 ... 16, Off

**Default:** Off

This determines the MIDI channel over which the lead sound of the Harmony effect is controlled. For example, when this is set to the same value as the MIDI transmit channel of a connected MIDI keyboard or sequencer, you can use that device to control the pitch of the lead sound. (See [“Using the Lead Voice.”](#))

## Harmony 1 - 3 Volume

Range: 0 ... 127

Default: 127

This determines the volume of the selected harmony note (1, 2, or 3).

## Harmony 1 - 3 Pan

Settings: Random, -63 (full left) ... 0 (center) ... +63 (full right)

Default: 0

This determines the stereo position of the selected harmony note (1, 2, or 3). The "Random" setting randomly assigns the selected harmony note to a pan position.

## Harmony 1 - 3 Detune

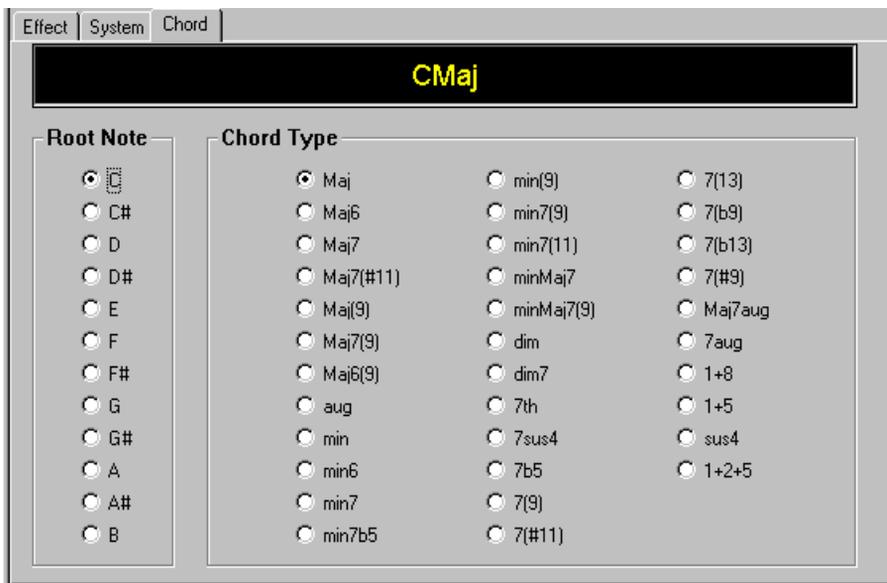
Range: -64 ... +63

Default: 0

This determines the amount of detuning for the selected harmony note (1, 2, or 3). A setting of "0" results in no detuning; positive and negative settings adjust the pitch of the harmony note up or down, respectively.

# Chord Parameters

This tab section allows you to specify the chord for the Harmony effect. To select a chord, click one of the twelve root notes and one of the thirty-four types. (Both the root note and type must be specified.)



To insert the chord to an host application's track, drag and drop the Chord tab to the desired track (the chord event is inserted to the nearest measure), or use the Insert VH Effect Editor Parameter command in the Edit menu.

# Sequencer-related Operations

The following menus and functions are available only when the VH Effect Editor is active and selected (the Editor screen appears in the foreground).

## Inserting VH Parameter Changes to a Song

### NOTE

- The following information pertains only to the Plug-in Editor.

This operation lets you insert parameter changes to a song track in host application. By inserting appropriate parameter values, you can fully automate the Harmony effect and have it change as needed during the course of a song.

### Operation

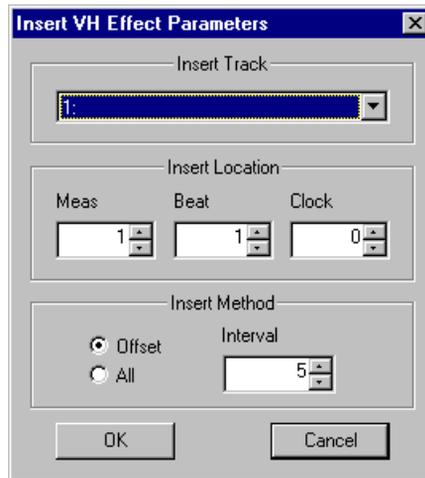
- 1 Make the desired Harmony parameter changes in the VH Editor window.
- 2 Select “Insert VH Effect Editor Parameter.”

#### With the mouse:

Click “Edit” on the menu bar, then select “Insert VH Effect Editor Parameter.”

#### With keyboard shortcuts:

Press: [Alt], [E] (Edit), [I] (Insert)



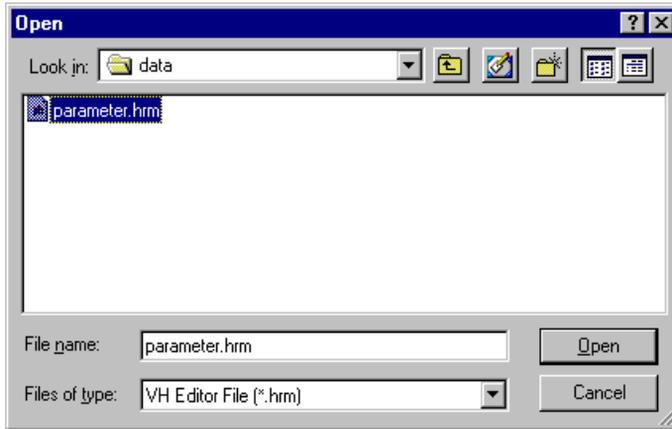
- 3 Change the settings in the dialog box, if desired.

## File Menu

When the VH Effect Editor is active and selected, the following functions appear in the File menu:

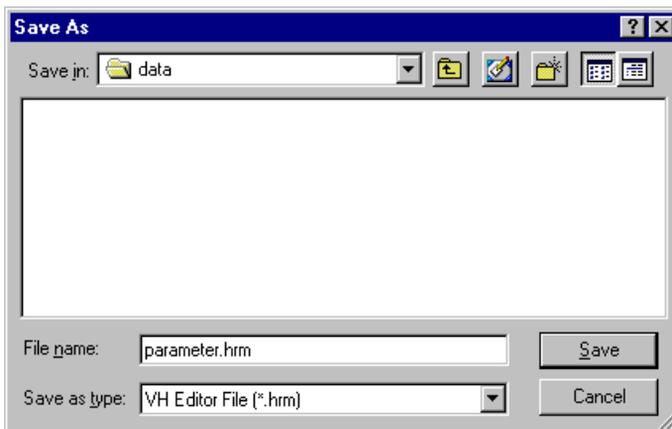
### ■ Open VH Effect Editor File.....

Use this function to open an existing Harmony Editor File.



### ■ Save VH Effect Editor File.....

Use this function to save the current VH Effect Editor settings to a Harmony Editor File.



These are used for saving and opening your original Harmony Editor Files. Using the Save command here saves a “Snapshot” of the current VH Effect Editor settings. (The default setting is as a Harmony Editor File; the .HRM extension allows you to easily organize the files.)

By keeping a library of often used Harmony effect settings as Harmony Editor Files, you can easily call up the settings you need (with the Open command) and quickly insert them to a song.

## Edit Menu

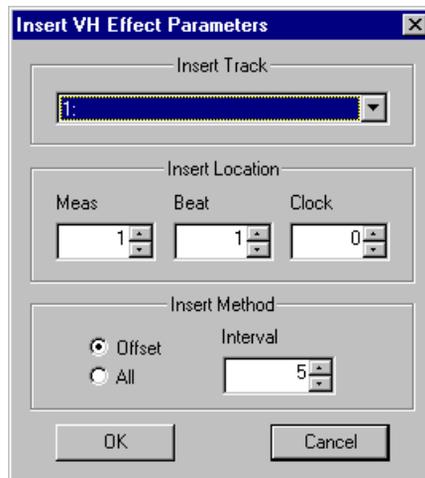
When the VH Effect Editor is active and selected, the following functions appear in the Edit menu:

### ■ Insert VH Effect Editor Parameter .....

#### NOTE

- The following information pertains only to the Plug-in Editor.

This is used for inserting parameter changes to a song track in host application. By inserting appropriate parameter values, you can fully automate the Harmony effect and have it change as needed during the course of a song. (Also see [Inserting VH Parameter Changes to a Song](#).)



### Insert Track

#### Range: 1 ... 100

This determines the track to which the Harmony parameter settings will be inserted. Generally, you should use the same track number for all parameter inserts, and make sure that no other data is contained in the track.

### Insert Location

This determines the precise location in the track to which the Harmony parameter settings will be inserted. You can specify the Measure (Meas), Beat, and Clock.

## Insert Method

### Offset

When this is selected, only the parameters whose values have been changed from the default value will be inserted.

### All

When this is selected, all parameter values will be inserted, whether they've been changed or not.

### Interval

This determines the amount of time (in clocks) that separates each insertion. If the tone generator or sound card "chokes" on the incoming MIDI data, or host application has trouble sending all the data properly, or the Harmony effect doesn't seem to work as expected, try setting the Interval to a higher number.

## ■ Copying Chord Events To and From the Master Track.....

### NOTE

- The following information pertains only to the Plug-in Editor.

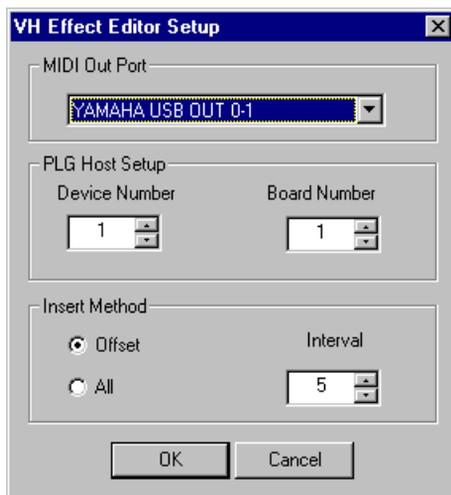
These functions allow you copy chord events to and from the Master Track in host application, converting XF format chord data (on software for the Yamaha Clavinova and PortaTone/PortaSound instruments) to host application format data.



## Setup Menus

When the VH Effect Editor is active and selected, the following functions appear in the Setup menu (these are used for changing various basic settings for the VH Effect Editor):

### ■ VH Effect Editor Setup.....



#### MIDI Out Port

##### Settings: Device, Out port number

This determines which MIDI output device (interface) and port is used for sending VH Effect Editor data. There are four available devices/ports, as specified in the System Setup parameters (Setup → System Setup). (For details on System Setup, refer to the host application's manual.) A setting of "---" disables MIDI output for the VH Effect Editor.

#### PLG Host Setup

##### Device Number

##### Range: 1 ... 16

This determines which tone generator the VH Effect Editor will send data to. If you have multiple tone generators in your MIDI setup and each is set to a different Device Number, this parameter lets you select which tone generator will be affected by the VH Effect Editor. If you are using only one tone generator, this should be set to "1."

##### Board Number

##### Range: 1 ... 8

This determines which tone generator card (or board) the VH Effect Editor will send data to. If you have multiple tone generator cards in your MIDI setup and each is set to a different Device Number, this parameter lets you select which card will be affected by the VH Effect Editor. If you are using only one tone generator card, this should be set to "1."

## Insert Method (Plug-in Editor only)

### Offset

When this is selected, only the parameters whose values have been changed from the default value will be inserted.

### All

When this is selected, all parameter values will be inserted, whether they've been changed or not.

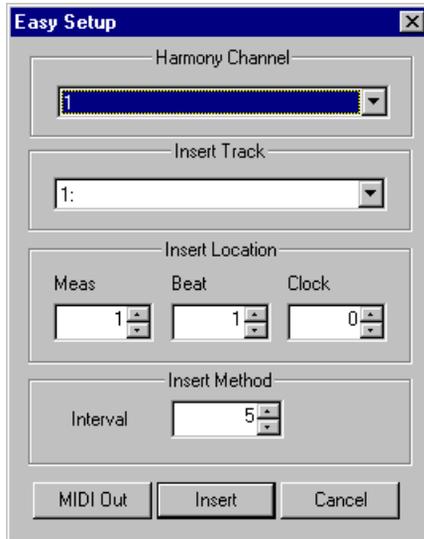
### Interval

This determines the amount of time (in clocks) that separates each insertion. If the tone generator or sound card “chokes” on the incoming MIDI data, or host application has trouble sending all the data properly, or the Harmony effect doesn't seem to work as expected, try setting the Interval to a higher number.

## ■ Easy Setup.....

**NOTE**

- This function is not supported in Macintosh stand-alone application.



## Harmony Channel

### Range: 1 ... 16

This determines the MIDI channel over which the Harmony effect (Vocoder or Chordal) is controlled. For example, when this is set to the same value as the MIDI transmit channel of a connected MIDI keyboard or sequencer, you can use that device to “play” harmonies. (This is the same parameter as in the System tab of the VH Effect Editor; however, the “off” setting is not available here.)

## Insert Track (Plug-in Editor only)

**Range: 1 ... 100**

This determines the track to which the setup data and settings will be inserted. Generally, you should use the same track number for all parameter inserts, and make sure that no other data is contained in the track.

## Insert Location (Plug-in Editor only)

This determines the precise location in the track to which the setup data and settings will be inserted. You can specify the Measure, Beat, and Clock.

## Insert Method (Plug-in Editor only)

### Interval

This determines the amount of time (in clocks) that separates each insertion. If the tone generator or sound card “chokes” on the incoming MIDI data, or host application has trouble sending all the data properly, or the Harmony effect doesn’t seem to work as expected, try setting the Interval to a higher number.

## MIDI-Out

Click this to directly enter the basic setup settings for the PLG100-VH to the tone generator/sound card. In addition to the Harmony Channel set in this box, these include all the necessary settings for using the Harmony effect, such as calling up the “Mic” setting for the A/D input, muting any other Parts set to the same MIDI channel as Harmony, and so on.

## Insert (Plug-in Editor only)

Click this to insert the basic setup settings for the PLG100-VH to the selected host application’s track. (The settings will actually change on the tone generator/sound card only when the song is played back.) In addition to the Harmony Channel set in this box, these include all the necessary settings for using the Harmony effect, such as calling up the “Mic” setting for the A/D input, muting any other Parts set to the same MIDI channel as Harmony, and so on.

### NOTE

Clicking the [MIDI-Out] button automatically makes the following settings on the connected tone generator (by transmitting the appropriate MIDI data):

- (1) The A/D Part of the tone generator/sound card is set to “Mic.”
- (2) Harmony Channel is set to the specified channel.
- (3) Harmony Type is set to “Vocoder.”
- (4) The Insert Part of the PLG100-VH is set to “AD1.”
- (5) Note On messages are automatically filtered out for all other Parts that are set to the same channel as the Harmony Channel. This effectively mutes all Parts that would otherwise interfere with the Harmony sound.

Settings (1), (4) and (5) above are ignored by Modular Synthesis Plug-in-compatible tone generators.

# Troubleshooting

If the Harmony effect does not seem to work as expected, check the following points:

- Is **Part** set to “Ad1” or “Ad2”?
- Is the **Lead/Harmony Balance** set to an appropriate value (such as “L=H”)?
- For Vocoder and Chordal types:
  - Is the **Harmony Channel** set to the same channel as the transmit channel on the MIDI keyboard or sequencer?
  - Are other keyboard/sequencer settings appropriate? (For example, check that Note On messages are being properly sent, that all transpose and other pitch related settings are at “0” or normal, etc.)
- Is **Harmony Mute** set to “off”?
- Are the **Harmony Volume (1 - 3)** settings appropriate?

If the parameter settings do not seem to change on the connected tone generator/sound card when using the VH Effect Editor, check the following points:

- In host application, make sure that System Exclusive is NOT checked (System Setup, MIDI Out Filter tab).
- Make sure that the tone generator is properly set to receive system exclusive messages. (On the MU100, the Receive System Exclusive parameter in the Utility mode should be set to “on.”)

When using inserted VH Effect Editor data in a sequenced song, if the Harmony effect doesn't work as expected or behave erratically, the tone generator/sound card (or host application itself) could be “choking” on too much MIDI data. To remedy this, set **Interval** to a higher number and re-insert the data.