YAMAHA

Piano Plug-in Board
Piano Plug-in Board
Carte Plug-in piano

PLG150-PF

Owner's Manual
Bedienungsanleitung
Mode d'emploi

English
Deutsch
Français

MODULAR SYNTHESIS PLUG-IN SYSTEM

Plug for XG
PF for XG

Precautions

- Do not expose the plug-in board to direct sunlight, excessive humidity, high temperatures, excessive dust or strong vibrations.
- Before handling the plug-in board, be sure to touch a metal surface to discharge any static electricity which may be in your body.
- When holding the plug-in board, do not touch the inside area of the circuit board or apply excessive pressure to the board, and be sure to protect the board from contact with water or other liquids.
- Before installing the plug-in board onto a tone generator/sound card, unplug the power connector of your computer.
- Before connecting the computer to other devices, turn off the power switches of all devices.
- Yamaha is not responsible for loss of data through computer malfunctions or operator actions.
- The plug-in board contains no user-serviceable parts, so never touch the inside area of the circuit board or tamper with the electronic circuitry in any way. Doing so may result in electrical shock or damage to the plug-in board.

YAMAHA CANNOT BE HELD RESPONSIBLE FOR DAMAGE CAUSED BY IMPROPER CARE AND USE OF THE PLUG-IN BOARD.

* The company names and product names in this Owner's Manual are the trademarks or registered trademarks of their respective companies.

* The screens as illustrated in this owner's manual are for instructional purposes only, and may appear somewhat different from the ones of your instrument.

FCC INFORMATION (U.S.A.)

1. **IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!**
   This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.
2. **IMPORTANT:** When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.
3. **NOTE:** This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices. Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

   Relocate either this product or the device that is being affected by the interference.

   Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter/s.

   In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300 ohm ribbon lead, change the lead-in to co-axial type cable.

   If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate, please contact Yamaha Corporation of America, Electronic Service Division, 6600 Orangethorpe Ave, Buena Park, CA 90620

* This applies only to products distributed by YAMAHA CORPORATION OF AMERICA.

CANADA

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

• This applies only to products distributed by Yamaha Canada Music Ltd.
• Ceci ne s'applique qu'aux produits distribués par Yamaha Canada Musique Ltée.

Congratulations and thank you for purchasing the Yamaha PLG150-PF Piano Plug-in Board!

The PLG150-PF is a custom tone generator designed for use with a variety of Yamaha electronic musical instruments. Foremost, the PLG150-PF can be installed to and integrated with instruments of the Modular Synthesis Plug-in System (such as the CS6x, CS6R, S80, etc.) It can also be used seamlessly with the MU128 Tone Generator (as well as other MU-series instruments and the SW1000XG PCI Audio/MIDI Board). The PLG150-PF provides a wide variety of exceptionally high-quality, authentic keyboard instrument sounds — including piano, electric piano, harpsichord, clav, and others. It features its own built-in EQ, Reverb, Chorus, and Insertion effects, allowing you to process the sound without having to use the effects resources of the "mother" device.

The settings and parameters of the PLG150-PF can also be conveniently edited with a Windows PC computer by using the PF Easy Editor software module (included in the XGworks Music Sequencer software).

Table of Contents

Overview of the PLG150-PF

The PLG150-PF is a sophisticated tone generator board that provides realistic piano and other keyboard sounds. Utilizing Yamaha's state-of-the-art AWM2 tone generation system along with true stereo sampling, the PLG150-PF features exceptionally rich, natural and authentic instrument voices, to augment the sound palette on the "mother" device.

■ Easy Installation

Once it is connected, the PLG150-PF automatically becomes another sound source in the tone generator/sound card, and can be used as one of the instrument Parts. You can create your own original PF voices and combine PF voices with the other voices in the "mother" device.

■ 136 Voices and 64-note Polyphony

The PLG150-PF is packed with a total of 132 rich and authentic keyboard voices. Many of the acoustic grand piano sounds have been recorded in stereo for enhanced realism and luxurious tone. The PLG150-PF also has a huge variety of realistic electric piano voices, covering a broad stylistic range — from the classic keyboards of the '60s and '70s, to the crisp and bright digital sounds of recent years. In addition to the electric grand, harpsichord and clav voices, a variety of combination voices are also included, letting you play sustained pad and choir sounds, layered with piano. A maximum 64-note polyphony lets you play complex sustained chords and passages, without worrying about notes being cut off. (For certain stereo and combination voices, the polyphony may be 32 notes or less.)

■ Built-in Effects

The PLG150-PF also has its own dedicated effects processing. This means that you can apply EQ, Reverb, Chorus, and even a Insertion effect to the voice, letting you use all of the effects on the "mother" device for the other Parts.ong.

MODULAR SYNTHESIS PLUG-IN SYSTEM

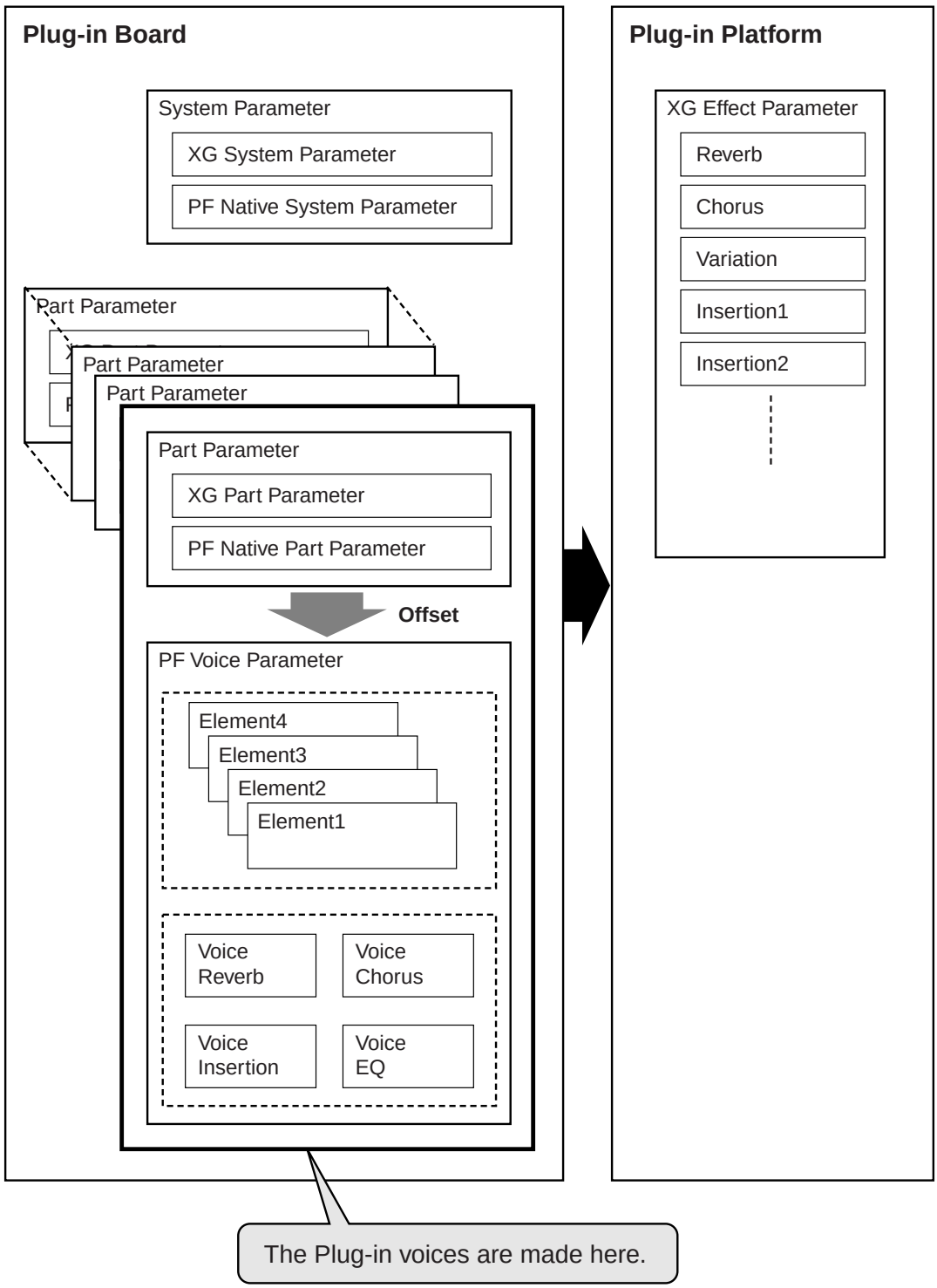
About the Modular Synthesis Plug-in System

The Yamaha Modular Synthesis Plug-in System offers powerful expansion and upgrade capabilities for Modular Synthesis-Plug-in-compatible synthesizers, tone generators and sound cards. This enables you to easily and effectively take advantage of the latest and most sophisticated synthesizer and effects technology, allowing you to keep pace with the rapid and multi-faceted advances in modern music production.

About the XG Plug-in System

The Yamaha XG Plug-in System offers powerful expansion and upgrade capabilities for XG-Plug-in-compatible tone generators and sound cards. This enables you to easily and effectively take advantage of the latest and most sophisticated synthesizer and effects technology, allowing you to keep pace with the rapid and multi-faceted advances in modern music production.

Parameter Structure



Specifications

TONE GENERATOR/MODULES :	AWM2
POLYPHONY :	64 notes maximum (latest note priority; polyphony is expandable *1) *1 On the CS6x, for example, two boards can be installed for a maximum of 128 notes; on the MU128, three boards can be installed for a maximum of 192 notes.
NUMBER OF VOICES :	136 XG voices (PF-XG/A, PF-XG/B) 128 Preset voices
INTERFACE :	Plug-in connector
EFFECTOR :	Reverb, Chorus, Insertion, 2-Band EQ
DIMENSIONS (W x H x D) :	138.5 x 89.0 x 8.5mm
WEIGHT :	72g
INCLUDED ITEMS :	Owner's Manual, Floppy disk

* Specifications subject to change without notice.

About the Included Floppy Disk

The included floppy disk contain editing software for the PLG150-PF as well as demonstration songs and Voice data for the “mother” device.

To use the editing software and transfer the song/Voice data to your particular “mother” device, you should have a computer (running Windows 95/98) with a MIDI interface, with the MIDI OUT on the interface connected to the MIDI IN of the “mother” device. You should also have XGworks (v3.0 or higher) or XGworks lite installed to your computer; this is necessary to use the editing software (page 10). For playing back the demonstration songs and transferring the Voice data, you can use any compatible sequence software (such as XGworks/XGworks lite) or hardware sequencer capable of sending bulk data. Insert the disk into the computer and start the installation.

The following software is included on the disk:

■ PF Easy Editor (page 10)

■ Demonstration Songs

(1) “Fantaisie-impromptu op.66” (02Fanta.mid)

By: Frederic Chopin
For: Modular Synthesis Plug-in System devices (CS6x, etc.) and XG Plug-in System devices (MU128, etc.)

(2) “THE PF THEATRE” (02Theatr.mid)

By: Katsunori Ujiie (Idecs, Inc.)
For: XG Plug-in System devices (MU128, etc.)

(3) “SOLO-demo” (02Solo.mid)

By: Katsunori Ujiie (Idecs, Inc.)
For: Modular Synthesis Plug-in System devices (CS6x, etc.) and XG Plug-in System devices (MU128, etc.)

■ Plug-in Voice Data for CS6x/CS6R/S80 (Modular Synthesis Plug-in System)

This is Plug-in voice data, featuring a total of 64 voices that were created using the PLG150-PF Preset voices. When the PLG150-PF is installed to PLG1, select the file “01PlgVc1.mid”; when the board is installed to PLG2, select the file “01PlgVc2.mid.”

For a complete list of these voices, refer to the Plug-in Voice List (page 29).

Installing the PLG150-PF

For detailed instructions on installing the PLG150-PF, refer to the owner's manual of the Plug-in-compatible "mother" device (e.g., CS6x, MU128, etc.).

Included Items

The following items have been included in the package of your new PLG150-PF. Please make sure that you have them all before starting to setup and use the instrument. If an item is missing, contact the store or dealer from which you purchased the PLG150-PF.

- PLG150-PF board
- PLG150-PF Owner's Manual (this book)
- Floppy disk

Required and Recommended Items

In addition to the included items listed above, you should also have the following:

Synthesizer/Tone Generator/Sound Card Compatible with the Modular Synthesis or XG Plug-in Systems

In order to use the PLG150-PF, you'll need a synthesizer, tone generator or sound card compatible with the Modular Synthesis Plug-in System or the XG Plug-in System. Compatible instruments include the CS6x, MU128, and the SW1000XG. The synthesizer/tone generator/sound card should al so have an available slot or space for installing the PLG150-PF.

XGworks or XGworks lite Music Sequencing Software

These software sequencers provide convenient tools for taking full advantage of the PLG150-PF, letting you create song data that automatically selects and plays back the PF voices. They also include the powerful PF Easy Editor (see below) for editing and controlling the PF voices. XGworks lite is contained on a CD-ROM included with the CS6x, MU128, etc., and XGworks is contained on a CD-ROM included with the SW1000XG.

PF Easy Editor

The PF Easy Editor is a special plug-in software module for XGworks and XGworks lite. It provides convenient easy-to-use control over the most important PLG150-PF settings and parameters. It also provides exceptionally intuitive editing, with a virtual "front panel" display that lets you change the settings with sliders.

Using the PF Easy Editor is just like using the Part editing controls on your tone generator — it indirectly and temporarily changes the PF voices without making changes to the original voice. The changed parameters can either be inserted into a song to automate sound changes, or can be saved as an PF parameter file for future recall. The PF Easy Editor software is contained on the included floppy disk.

Installing and Starting the Plug-in Editor Software (Windows 95/98)

Installing the Software

Double-click the “Setup.exe” file in the “Plug_” folder on the floppy disk to start the installation. Click “Next” or “Yes” and follow the subsequent instructions on the screen to complete the installation.

Starting the PF Easy Editor

1 Start XGworks (or XGworks lite).

2 Click the “Plug-in” menu and select “PF Easy Editor.”

Alternately, press Alt + P, then D, and ENTER. The “Select PF Part” dialog box appears.

3 Set the desired Part number and click “OK.”

The PF Easy Editor window appears.

If the PLG150-PF has been properly installed and all computer/MIDI connections have been properly made, operating the PF Easy Editor should directly affect the PLG150-PF. For details on using the PF Easy Editor, refer to the on-line help file that is included with the software.

NOTE When using a Modular Synthesis Plug-in System “mother” device, the Part assignment depends on which mode is used — Voice or Performance — and also on whether the PLG150-PF board is installed/assigned to PLG1 or PLG2, as described below.

When using the Voice mode:

Depending on which slot the PLG150-PF board has been installed to, press PLG1 or PLG2, then set the Part to “1” (no matter what the PLG1 or PLG2 assignment is).

When using the Performance (Multi) mode:

If the PLG150-PF board is assigned to PLG1, set the Part to “16.”

If the PLG150-PF board is assigned to PLG2, set the Part to “15.”

Selecting PF Voices (Modular Synthesis Plug-in System)

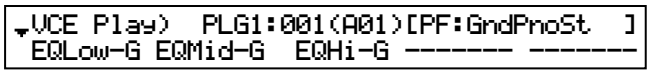
When the PLG150-PF is installed to a CS6x Control Synthesizer, the PF voices can be selected in the same way as the internal voices of the synthesizer.

NOTE The example displays used in the following explanations are all taken from the CS6x.

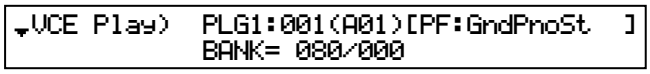
Enabling and Selecting PF Voices

1 Press the VOICE button.

2 Press the appropriate PLG button (PLG1 or PLG2, depending on which slot the PLG150-PF board has been installed to), then press the appropriate BANK button and PROGRAM button to select the desired Plug-in voice.



NOTE To select a different bank, simultaneously hold down the appropriate PLG button and turn knob C (or press the DEC/INC buttons) to select the desired bank.
The bank is expressed in two numbers: MSB and LSB.



If a selected bank is not available, the bank letter indication in the display (A - H) will not change. For a list of the available banks and their MSB/LSB values, refer to the “PF-XG Voice Map” at the back of this manual (pages 26 — 28).

Editing the PF Native Part Parameters (Modular Synthesis Plug-in System)

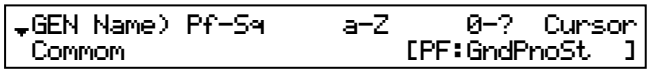
NOTE

- Keep in mind that the parameter values and settings below represent offsets of the actual voice settings. This means that adjustments made to the parameters may not make much change in the actual sound, depending on the original settings of the voice. For parameter values, a setting of "0" results in no change, while positive and negative values increase and decrease the value respectively.
- The following explanations show how to edit the PF native part parameters when creating PLG voices, using the CS6x Control Synthesizer as an example. For information on storing the PLG voices with your particular Modular Synthesis Plug-in System compatible instrument, refer to the owner's manual of that instrument.

1 Select the desired PF voice, as described in "Selecting PF Voices" on page 12.

2 Press the EDIT button.

The EDIT menu display appears.



3 Turn knob A clockwise until "Elem" is shown at the bottom left of the display.

4 Turn the PAGE knob clockwise until "PLG150-PF" is shown at the bottom left of the display.

Keep turning the knob to select the different PF Part parameters, indicated just above knob C and knob 2.

5 Use knobs C and 2 to select the desired parameter and change the value.

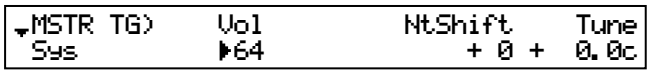
Once one of the parameters is selected (the arrow cursor appears next to the value), you can also adjust the value with the DATA knob or the DEC/INC buttons.

Selecting/Editing the PF System Parameters (Modular Synthesis Plug-in System)

NOTE The example displays used in the following explanations are all taken from the CS6x.

1 Press the UTILITY button.

The Utility Mode display appears.



2 Turn the PAGE knob clockwise until “PLG150-PF” is shown at the bottom left of the display.

Keep turning the knob to select the different PF System parameters, indicated just above knob C and knob 2.

3 Use knobs C and 2 to select the desired PF System parameter and change the value.

Once one of the parameters is selected (the arrow cursor appears next to the value), you can also adjust the value with the DATA knob or the DEC/INC buttons.

Selecting PF Voices (XG Plug-in System)

The PLG150-PF voices can be selected just like the voices of the XG tone generator. Keep in mind, though, that they can only be selected when the Sound Module Mode is set to XG or Performance. Also, the Part Assign parameter in the Utility mode (see below) must be set to the desired Part.

NOTE The example displays used in the following explanations are all taken from the MU128.

Enabling and Selecting PF Voices

1 Set the Sound Module Mode to "XG" or "PFM" (Performance).

Press the MODE button and use the SELECT ◀/▶ buttons.

NOTE The Performance mode is not available on the SW1000XG.

2 Set the Part Assign parameter to the desired Part number.

To do this:

1) Press the UTIL button.
2) Select the "PLUGIN" menu (with the SELECT ▶ button) and press ENTER.
3) Select the "PLG150-PF" menu if necessary (with the SELECT ◀/▶ buttons), and press ENTER.
4) Select the Part Assign parameter (with the SELECT ◀ button), and use the VALUE -/+ buttons or dial to change the Part number.

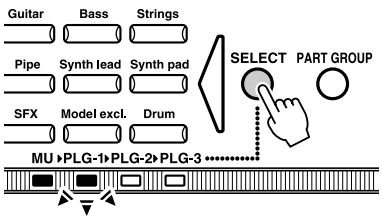
NOTE The Part Assign range for the XG mode is 1 - 16 and "off"; for the Performance mode, it is 1 - 4 and "off."

Press the EXIT button to return to the Play mode.

This operation can also be quickly and conveniently done from the PF Easy Editor (in XGworks).

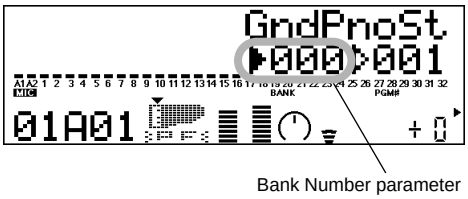
3 Enable the PLG150-PF board for the desired Part.

First, make sure that the appropriate Part is selected (using the PART -/+ buttons), then press the SELECT button. The icon of the selected board appears in the display and the corresponding LED at the bottom of the panel (PLG-1, -2, or -3) flashes briefly.



4 Select the desired bank number.

Move the cursor to the Bank Number parameter with the SELECT ◀/▶ buttons and use the VALUE -/+ buttons to select the desired bank.



5 Select the desired voice number.

Move the cursor to the Voice (Program) Number parameter with the SELECT ◀/▶ buttons and use the VALUE -/+ buttons to select the desired voice.

NOTE Voices (and Voice banks) can also be selected by using the Voice Category buttons.

Alternately, you can select voices from a connected MIDI keyboard, or from sequencing software (such as XGworks) on a connected computer.

For a list of available voices and their bank/voice numbers, see page 26.

Editing the PF Native Part Parameters (XG Plug-in System)

Any of the PF voices can be freely edited from the front panel with the PF Part parameters. These same parameters can also be edited from a computer using the PF Easy Editor software (in XGworks).

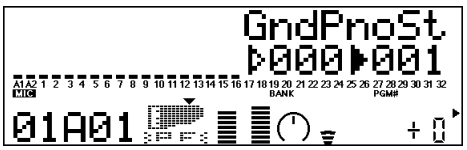
Keep in mind that changing the Part parameters does not permanently affect the original voice settings. The edits that you make here temporarily change the settings of the currently selected voice. When you select a different voice for the Part, the settings are applied to the newly selected voice.

NOTE

- The Part parameter settings cannot be saved in Multi Play mode. If you wish to save your Part parameter edits, do it from the Performance mode or the PF Easy Editor.
- The example displays used in the following explanations are all taken from the MU128.

1 Select the Part having the PF voice, then select the desired voice.

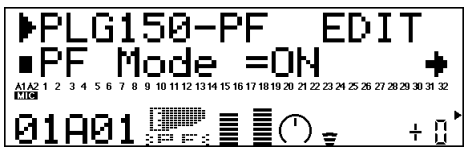
Select the appropriate Part with the PART -/+ buttons, then, with the cursor at the Voice Number parameter, select the desired voice.



2 Press the EDIT button to enter the Edit mode.

3 Select the "PLUGIN" menu.

Use the SELECT ▶ button, then press the ENTER button. The PLG150-PF Edit menu appears.



4 Select the desired parameter.

Use the [SELECT ◀/▶] buttons.

5 Adjust the value or change the setting for the selected parameter.

Use the [VALUE +/-] buttons.

6 Return to the main Play display.

Press the [EXIT] button several times, or press the [PLAY] button once.

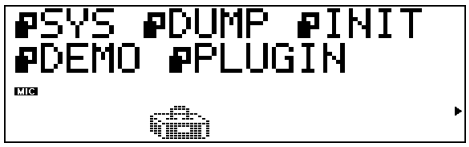
Selecting/Editing the PF System Parameters (XG Plug-in System)

The parameters that apply to the entire system of the PLG150-PF are included in the Utility mode menu of the XG tone generator.

NOTE The example displays used in the following explanations are all taken from the MU128.

1 Press the [UTIL] button.

The Utility mode menu appears.



2 Select the "PLUGIN" menu.

Use the [SELECT ▶] button to highlight "PLUGIN," then press the [ENTER] button.

3 Select the PLG150-PF board.

If the PLG150-PF board is the only one installed, "PLG150-PF" is already displayed and can be selected by pressing the [ENTER] button. If additional boards have been installed to the tone generator, you may need to select "PLG150-PF." To do this, first use the [SELECT ◀/▶] buttons, then press [ENTER].

The System parameter menu for the PLG150-PF appears.

4 Select the desired parameter.

Use the [SELECT ◀/▶] buttons.

5 Adjust the value or change the setting for the selected parameter.

Use the [VALUE +/-] buttons.

6 Return to the main Play display.

Press the [EXIT] button several times, or press the [PLAY] button once.

PF Native Part Parameters

Keep in mind that the parameter values and settings represent offsets of the actual voice settings. This means that the actual sound that results from the settings made here depends on the original settings of the voice.

Also keep in mind that these are "Part" parameters and as such, are temporary; they simply alter or offset the settings of the currently selected voice. The original voice settings are permanently maintained in memory.

For parameter values, a setting of "0" results in no change, while positive and negative values increase and decrease the value respectively.

Let's look at a specific example. If the original Bass Frequency parameter of the selected voice is set to 100, and you set the Bass Frequency (below) to "-25," the actual Bass Frequency will become "75." If you set it to "+10," the value will become "110." Naturally, this also means that the parameter value cannot be increased or decreased beyond its maximum or minimum values. In our example, Bass Frequency values higher than "+27" have no effect on the sound, since the actual range is 0 — 127.

NOTE

- Depending on the selected voice and the particular parameter being edited, the sound or actual parameter value of certain voices may change very little or not at all, even when the parameter value is changed drastically.
- For Modular Synthesis Plug-in System compatible devices, the voices you edit/create can be stored to the device as PLG voices. For details on storing voices, refer to the owner's manual of your Modular Synthesis Plug-in System compatible instrument.

■ PF Mode

Settings: ON, OFF

This determines whether the PF (Piano) Mode is on or off. When this is set to "ON" and damper (sustain) pedal messages are received, the PLG150-PF simulates the sound of a damper pedal.

■ SusCurve (Sustain Curve)

Settings: Normal, Step

This determines how the voices respond to damper (sustain) pedal messages. When this is set to "Normal," the PLG150-PF simulates the actual damper pedal action of an acoustic piano, giving you continuous control over sustain. When this is set to "Step," sustain is simply turned on or off in response to damper pedal messages.

■ Bass Freq (Bass Frequency)

Range: -64 — +00 — +63

This determines the frequency which is boosted or cut (in the Bass Gain parameter below) for each Part.

■ Bass Gain

Range: -64 — +00 — +63

This determines the level of the selected frequency (in “Bass Freq” above). Positive values boost the level of the selected frequency and negative values attenuate it.

■ Treble Freq (Treble Frequency)

Range: -64 — +00 — +63

This determines the frequency which is boosted or cut (in the Treble Gain parameter below) for each Part.

■ Treble Gain

Range: -64 — +00 — +63

This determines the level of the selected frequency (in “Treble Freq” above). Positive values boost the level of the selected frequency and negative values attenuate it.

■ EL1 Level (Element 1 Level)
■ EL2 Level (Element 2 Level)
■ EL3 Level (Element 3 Level)
■ EL4 Level (Element 4 Level)

Range: -64 — +00 — +63 (“***”: not available)

The voices of the PLG150-PF are made up of one to four sound elements. More sophisticated sounds have more elements. Though these elements are fixed for the various sounds and cannot be changed, the volume of each element can be set and adjusted. These parameters determine the level of each corresponding element. (Elements that are not used by the voice cannot be set here and are indicated by “***” in the display.)

■ AC1 EL1 Lev (Assignable Controller 1 — Element 1 Level Control)

■ AC1 EL2 Lev (Assignable Controller 1 — Element 2 Level Control)

■ AC1 EL3 Lev (Assignable Controller 1 — Element 3 Level Control)

■ AC1 EL4 Lev (Assignable Controller 1 — Element 4 Level Control)

Range: -64 — +00 — +63 ("***": not available)

As explained in EL1 - EL4 Level above, the voices of the PLG150-PF are made up of up to four sound elements. These parameters determine the degree to which the Assignable Controller 1 (AC1) is used to control the level of each corresponding element. (Elements that are not used by the voice cannot be set here and are indicated by "***" in the display.) Positive values result in normal level control: Moving the controller toward the maximum settings increases the level. Negative values result in an inverse relationship: Moving the controller toward the maximum settings decreases the level. A value of "0" results in no control.

■ REV Send (Reverb Send)

Range: -127 — +127 ("****": not available)

This determines the amount of voice signal that is sent to the PLG150-PF's built-in Reverb effect.

■ CHO Send (Chorus Send)

Range: -127 — +127 ("****": not available)

This determines the amount of voice signal that is sent to the PLG150-PF's built-in Chorus effect.

■ INS LFOFrq (Insertion LFO Frequency)

Range: -127 — +127 ("****": not available)

This determines the frequency of LFO modulation for the PLG150-PF's built-in Insertion effect.

■ INS LFODpt (Insertion LFO Depth)

Range: -127 — +127 ("****": not available)

This determines the depth of LFO modulation for the PLG150-PF's built-in Insertion effect.

■ INS Feedback (Insertion Feedback Level)

Range: -127 — +127 ("***": not available)

This determines the feedback level for the PLG150-PF's built-in Insertion effect.

■ INS DryWet (Insertion Dry/Wet Balance)

Range: -127 — +127 ("****": not available)

This determines the balance between the direct, unprocessed signal (dry) and the Insertion-processed sound (wet).

■ INS Offset (Insertion Offset)

Range: -64 — +63 ("****": not available)

This parameter is used to change one specific parameter of the effect; the particular parameter depends on the effect type.

■ INS Drive (Insertion Drive)

Range: -127 — +127 ("****": not available)

This determines the amount of distortion overdrive for the PLG150-PF's built-in Insertion effect.

■ INS ClpCrv (Insertion Clipping Curve)

Range: -127 — +127 ("****": not available)

This determines the amount of distortion "edge" for the PLG150-PF's built-in Insertion effect. Higher values result in harder edged distortion.

■ INS Delay (Insertion Delay Time)

Range: -7149 — +7149 ("*****": not available)

This determines the delay time for the PLG150-PF's built-in Insertion effect.

NOTE

- Keep in mind that these parameters are offset controls; the actual resulting effect sound will differ from voice to voice. If the currently selected voice does not have any effect or uses an effect type not corresponding to this parameter, the parameter is unavailable and is indicated by asterisks ("***") in the display.
- Whether this Insertion effect parameter is available or not depends on the selected voice and its pre-assigned Insertion effect types. (For details on the effect types and parameters for each voice, see the Preset Voice List on page 24 and the Effect Parameter List on page 30.)

PF System Parameters

■ Part Assign

Settings: 01 — 16, off

This determines the Part to which the PLG150-PF voice is assigned. If a Part is not properly assigned here, none of the PLG150-PF voices can be selected for the Part. (This applies to XG Plug-in System compatible “mother” devices.)

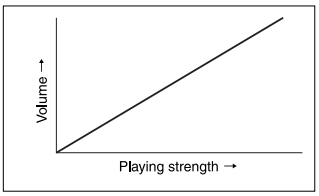
NOTE The PLG150-PF voices can only be assigned to a single Part.

■ VelCurve (Velocity Curve)

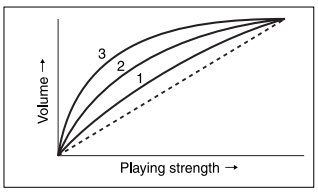
Settings: Normal, Soft1, Soft2, Soft3, Hard1, Hard2, Cross1, Cross2

This function lets you to produce determine how the volume of the PLG150-PF's Voices respond to your playing touch (velocity). Eight different Velocity Curve settings (or curves) are available, letting you tailor the response to your own preference.

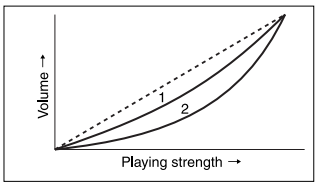
- The **Normal** setting provides standard touch response.



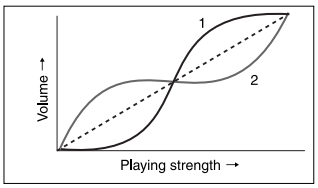
- **Soft 1 to 3** allow you to produce a reasonably high volume with a soft, light touch (low velocities).



- **Hard 1 and 2** produce high volume only with a hard, strong touch (high velocities).



- **Cross 1 and 2** are “mirror image” curves, designed to be used together with different voices in a layer to produce a velocity crossfade effect. As shown in the illustration, the two curves complement each other in a way that allows the Cross 2 applied voice to sound at soft velocities, while the Cross 1 voice sounds at high velocities.



■ Preset Voice List

No.	Voice Name	E	Insertion Effect Type	Insertion Effect Parameter No. (*1)																Voice EQ			
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Bass Freq	Bass Gain	Treble Freq	Treble Gain
1	StGndPSt	2	2 Band EQ	28	69	46	68													9	64	52	64
2	GndPnoSt	2	2 Band EQ	28	69	46	68													9	64	52	64
3	BrghtGnd	2	2 Band EQ	28	69	52	74													9	64	58	76
4	60'sGrnd	1	3 Band EQ	70	44	76	81	59	28	46										9	64	52	64
5	StRichSt	2	2 Band EQ	28	69	49	76													9	69	52	70
6	RchGndSt	2	2 Band EQ	28	69	49	76													9	69	52	70
7	60'sJazz	2	2 Band EQ	21	52	28	76													30	67	49	56
8	StTghtSt	2	2 Band EQ	28	67	46	73													9	69	52	68
9	TghtGdSt	1	2 Band EQ	28	67	46	73													9	69	52	68
10	PowerGnd	2	2 Band EQ	28	67	46	76													9	76	52	73
11	MildGrnd	2	2 Band EQ	32	66	56	52													9	64	47	73
12	Timeworn	1																		5	68	54	53
13	ChorusMn	1	Chorus	5	54	77	106		28	67	46	71	39					0		9	64	52	64
14	Doom	1	Reverse Gate	1	19	8	3	64	0	47			30	6	3	10				9	76	52	84
15	Phono	1	Distortion	2	20	60	34	75		43	76	10	127	120						9	64	52	64
16	Room	1	ER	1	19	5	16	64	0	46			37	5	0	10				14	71	52	72
17	AmbiGrnd	2	Cross Delay	1700	1750	104	1	10					35			28	67	58	67	9	64	52	64
18	FlngGrnd	2	Flanger	6	46	104	2		28	68	46	76	96				4			9	64	52	64
19	CelesGnd	1	Celeste	3	32	64	0		28	64	46	70	68					1		9	70	52	71
20	Dbl Pno	2																		9	64	52	64
21	Montuno	3																		9	66	45	70
22	GrndDyno	3																		13	74	51	69
23	David	4																		9	64	52	71
24	RhodyGnd	3																		9	70	52	75
25	Perc Pno	4																		22	58	52	70
26	GrandDX	3																		16	72	50	68
27	GrandDX2	3																		16	66	50	68
28	Bob	4																		9	66	52	71
29	PianoStr	4																		13	72	52	69
30	PnoStPad	4																		13	72	52	69
31	SynStrPf	3																		9	64	48	79
32	PianoPad	4																		13	72	52	69
33	OctPf+Pd	4																		9	70	45	67
34	Pf+Choir	3																		9	64	48	65
35	ModPd Pf	4																		9	70	45	69
36	Pia-Tron	3																		19	55	52	6
37	SitaryPf	4																		9	70	48	70
38	BrghtPno	1	2 Band EQ	28	64	46	66													9	64	52	64
39	Digital	1	2 Band EQ	28	68	46	68													9	64	52	64
40	ChorDigi	1	Chorus	5	54	102	106		28	64	46	66	46					0		9	64	52	64
41	Grnd+EP	3																		13	71	51	73
42	DigiGrnd	1																		9	54	41	52
43	Grnd/wDX	4																		16	72	50	68
44	ChoDigiP	3																		15	58	52	64
45	GlassPno	3																		9	60	58	84
46	DigiTine	3																		14	62	42	64
47	CP	1	2 Band EQ	28	68	46	69													9	67	52	68
48	CP-Symph	1	Symphonic	4	25	16			28	63	46	67	127							9	64	52	64
49	Trem CP	1	Auto Pan	34	80	24	0		28	66	46	69								9	69	52	71
50	BrightCP	2	Chorus	6	54	77	55		28	64	46	64	32					0		13	60	51	69
51	Digi CP1	2																		9	64	52	64
52	Digi CP2	3																		4	68	58	64
53	Jino	3																		9	50	52	68
54	Petit CP	2																		9	70	45	67
55	Hnkytnk1	2	3 Band EQ	58	34	52	10	68	28	46										9	68	52	64
56	Hnkytnk2	2	3 Band EQ	64	34	64	10	64	28	46										9	64	52	64
57	Hnkytnk3	2	3 Band EQ	60	34	64	10	63	28	46										9	64	52	64
58	FMHkytnk	2	3 Band EQ	60	34	59	10	67	28	46										9	64	52	64
59	Tea	1	2 Band EQ	28	64	46	70													9	64	52	68
60	Deodar	1	2 Band EQ	28	67	46	70													9	64	52	64
61	70's EP	1	2 Band EQ	28	63	46	68													9	64	52	64
62	80's EP	1	2 Band EQ	28	64	46	64													9	64	52	64
63	Crisp EP	1	3 Band EQ	61	34	62	10	69	28	46										9	64	52	64
64	Sweetnes	1	Phaser	8	111	11	91		28	60	58	64	64	3	1					9	63	52	73

E : Numbers of elements

(*1) : Refer to “PLG150-PF Voice Effect Parameter List” (page 30).

No.	Voice Name	E	Insertion Effect Type	Insertion Effect Parameter No. (*1)																Voice EQ			
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Bass Freq	Bass Gain	Treble Freq	Treble Gain
65	Freeway	1	Auto Pan	53	127	0	5		28	64	46	67								9	67	52	72
66	Trem 70	1	Auto Pan	48	80	32	5		28	64	46	65								9	67	52	72
67	Remark	1	Phaser	60	31	71	90		23	64	46	72	110	8	0					9	64	52	69
68	Sample	1	Rotary SP	29	30				24	59	45	65	127							39	53	52	70
69	Mid 70's	1	Chorus	6	39	77	57		28	59	46	67	34					0		9	64	52	64
70	Celest80	1	Celeste	12	13	64	0		28	62	46	66	61					1		9	64	52	64
71	At Once	2	Symphonic	12	14	58			28	62	48	73	61							9	64	52	64
72	TremDyno	1	Auto Pan	47	80	32	5		28	60	45	69								9	64	52	64
73	TremWurl	1	Tremolo	83	39	0			28	61	46	66					64	0		9	64	52	72
74	Phase 70	1	Phaser	36	111	74	104		28	61	46	68	64	6	1					9	64	52	64
75	DlydDyno	1	Delay L,C,R	3333	1667	5000	5000	74	100	10			32			28	64	58	67	9	58	52	68
76	FlngDyno	1	Flanger	14	15	84	2		28	55	46	67	59				4			9	64	52	69
77	Dstrtd70	1	Amp Simulator	4	0	60	127						29	26						9	64	52	69
78	Dyno 81	1																		9	51	52	64
79	Tonight	1	Celeste	8	32	64	0		28	60	52	67	59					0		9	55	52	64
80	Dyno 83	1	ER	0	19	5	16	64	0	46			25	5	0	10				9	67	41	93
81	Dbl 70's	2																		9	64	52	64
82	Digi-Rho	3																		9	65	50	66
83	Choir EP	2																		9	70	45	67
84	Paddy EP	2																		7	66	56	68
85	VcePd EP	3																		9	70	45	69
86	Vibrt EP	3																		12	70	48	68
87	60's EP	1	2 Band EQ	28	62	46	65													9	64	52	68
88	Trump	1	Amp Simulator	3	3	48	105						127	42						9	64	50	71
89	DonnyWrl	1																		8	72	53	74
90	WurliAmp	1	Amp Simulator	3	3	48	108						127	56						9	64	50	71
91	Dg Wurli	2																		12	69	52	70
92	FullTine	1	2 Band EQ	28	62	46	64													9	64	52	70
93	DX EP2	1	2 Band EQ	28	63	46	68													9	64	52	64
94	DX 1980	1	2 Band EQ	28	61	46	67													9	64	52	64
95	DX 1990	1	2 Band EQ	28	64	46	65													9	64	52	64
96	Mllw DX	3																		12	69	52	67
97	ChrsTine	1	Chorus	6	34	77	78		28	61	46	67	64					0		9	64	52	73
98	Chrs EP2	1	Chorus	6	38	77	64		28	61	46	68	64					0		9	64	52	64
99	Chrs1980	1	Chorus	6	54	77	85		28	60	46	68	39					0		9	64	52	64
100	Chrs1990	1	Chorus	6	54	77	53		28	60	46	67	37					0		9	64	52	64
101	DarkDXEP	2																		12	69	52	71
102	FTBallad	1	Symphonic	12	25	16			28	60	46	69	40							9	66	52	68
103	Sym EP2	1	Symphonic	9	25	16			28	60	46	66	55							9	64	52	64
104	Chrs1982	1	3 Band EQ	60	34	52	10	64	28	46										9	64	52	67
105	90Ballad	1	Symphonic	10	25	16			28	60	46	67	47							9	62	52	66
106	816	4																		9	54	52	68
107	DXEP+Pad	3																		13	68	52	67
108	DXSynStr	3	Celeste	12	32	64	0		28	61	46	64	39					0		13	68	52	67
109	DXEP+Cho	3																		13	68	52	67
110	Balmy DX	3																		15	53	36	58
111	GlassyEP	4																		4	74	54	75
112	FM Piano	1																		9	64	52	64
113	Chrs FMP	1	Chorus	6	54	77	74		28	61	46	67	48					0		9	64	52	64
114	Harpsi 1	1																		16	70	52	68
115	Harpsi 2	2	3 Band EQ	58	34	64	10	69	28	46										9	64	52	64
116	Harpsi 3	1	3 Band EQ	64	28	76	120	64	28	46										40	65	52	68
117	Harpsi 4	2	Reverse Gate	1	7	8	3	64	0	47			36	6	3	10				9	64	52	64
118	RichHpsi	1	3 Band EQ	60	34	52	10	64	28	46										16	70	52	72
119	ShrpHpsi	2	3 Band EQ	58	34	52	10	72	28	46										9	64	52	64
120	Clav 1	1	3 Band EQ	64	45	67	10	70	28	46										9	64	52	64
121	Clav 2	1	3 Band EQ	64	34	64	10	71	28	46										9	64	52	64
122	MuteClav	1	3 Band EQ	64	34	68	10	64	28	46										9	64	52	84
123	Phs Clav	1	Phaser	14	127	69	24		28	66	46	67	127	6	0					9	64	52	69
124	PhsClav2	1	Phaser	8	111	127	104		28	62	46	64	127	6	0					9	64	52	75
125	Wah Clav	1	Auto Wah	70	33	56	49		28	69	46	71	127							9	64	52	86
126	DigiClav	1																		17	68	52	68
127	Ch DgClv	1	Chorus	6	54	77	17		28	62	46	66	37					0		17	68	52	72
128	PhsDgClv	1	Phaser	17	111	74	104		28	62	46	66	64	10	1					17	68	52	68

E : Numbers of elements

(*1) : Refer to “PLG150-PF Voice Effect Parameter List” (page 30).

■ PF-XG Voice Map

NOTE Voices having the same name also have the same effect types and settings. (Page 24)

● PF-XG/A Bank

Bank Select MSB		80		80		80		80		80		80		80		80	
Bank Select LSB		0		64		65		66		67		68		69		70	
Instrument Group	Pgm# (1-128)		E		E		E		E		E		E		E		E
Piano	1	GndPnoSt	2	GndPnoMn	1	BrghtGnd	2	60'sGrnd	1	RchGndSt	2	RchGndMn	2	60'sJazz	2	TghtGdSt	1
	2	BrghtPno	1	Digital	1	ChorDigi	1	Grnd+EP	3	DigiGrnd	1	Grnd/wDX	4	ChoDigiP	3	GlassPno	3
	3	CP	1	CP-Symph	1	Trem CP	1	BrightCP	2	Digi CP1	2	Jino	3	Digi CP2	3	Petit CP	2
	4	Hnkytnk1	2	Hnkytnk2	2	Hnkytnk3	2	FMHkytnk	2								
	5	Tea	1	Deodar	1	70's EP	1	80's EP	1	Crisp EP	1	Sweetnes	1	Freeway	1	Trem 70	1
	6	FullTine	1	DX EP2	1	DX 1980	1	DX 1990	1	Mllw DX	3	ChrsTine	1	Chrs EP2	1	Chrs1980	1
	7	Harpsi 1	1	Harpsi 2	2	Harpsi 3	1	Harpsi 4	2	RichHpsi	1	ShrpHpsi	2				
	8	Clav 1	1	Clav 2	1	MuteClav	1	Phs Clav	1	PhsClav2	1	Wah Clav	1	DigiClav	1	Ch DgClv	1

Bank Select MSB		80		80		80		80		80		80		80		80	
Bank Select LSB		71		72		73		74		75		76		77		78	
Instrument Group	Pgm# (1-128)		E		E		E		E		E		E		E		E
Piano	1	TghtGdMn	2	PowerGnd	2	MildGrnd	2	Timeworn	1	ChorusMn	1	Doom	1	Phono	1	Room	1
	2	DigiTine	3	SawDigi1	2	SawDigi2	2										
	3																
	4																
	5	Remark	1	Sample	1	Mid 70's	1	Celest80	1	At Once	2	TremDyno	1	TremWurl	1	Phase 70	1
	6	Chrs1990	1	DarkDXEP	2	FTBallad	1	Sym EP2	1	Chrs1982	1	90Ballad	1	816	4	DXEP+Pad	3
	7																
	8	PhsDgClv	1														

Bank Select MSB		80		80		80		80		80		80		80		80	
Bank Select LSB		79		80		81		82		83		84		85		86	
Instrument Group	Pgm# (1-128)		E		E		E		E		E		E		E		E
Piano	1	AmbiGrnd	2	FlngGrnd	2	CelesGnd	1	Dbl Pno	2	Montuno	3	GrndDyno	3	David	4	RhodyGnd	3
	2																
	3																
	4																
	5	DlydDyno	1	FlngDyno	1	Dstrtd70	1	Dyno 81	1	Tonight	1	Dyno 83	1	Dbl 70's	2	Digi-Rho	3
	6	DXSynStr	3	DXEP+Cho	3	Balmy DX	3	GlassyEP	4	FM Piano	1	Chrs FMP1	1				
	7																
	8																

Bank Select MSB		80		80		80		80		80		80		80		80	
Bank Select LSB		87		88		89		90		91		92		93		94	
Instrument Group	Pgm# (1-128)		E		E		E		E		E		E		E		E
Piano	1	Perc Pno	4	GrandDX	3	GrandDX2	3	Bob	4	PianoStr	4	PnoStPad	4	SynStrPf	3	PianoPad	4
	2																
	3																
	4																
	5	Choir EP	2	Paddy EP	2	VcePd EP	3	Vibrt EP	3	60's EP	1	Trump	1	DonnyWrl	1	WurliAmp	1
	6																
	7																
	8																

E : Number of simultaneously sounding elements.
: Silence

Bank Select MSB		80		80		80		80		80		80		80		80	
Bank Select LSB		95		96		97		98		99		100		101		102	
Instrument Group	Pgm# (1-128)		E		E		E		E		E		E		E		E
Piano	1	OctPf+Pd	4	Pf+Choir	3	ModPd Pf	4	Pia-Tron	3	SitaryPf	4	StGndPSt	2	StGndPMn	1	StRichSt	2
	2																
	3																
	4																
	5	Dg Wurli	2														
	6																
	7																
	8																

Bank Select MSB		80		80		80	
Bank Select LSB		103		104		105	
Instrument Group	Pgm# (1-128)		E		E		E
Piano	1	StRichMn	1	StTghtSt	2	StTghtMn	1
	2						
	3						
	4						
	5						
	6						
	7						
	8						

E : Number of simultaneously sounding elements.
: Silence

● PF-XG/B Bank

Bank Select MSB		96		96		96		96		96		96		96		96	
Bank Select LSB		0		64		65		66		67		68		69		70	
Instrument Group	Pgm# (1-128)		E		E		E		E		E		E		E		E
Piano	1	GndPnoSt	2	GndPnoMn	1	BrghtGnd	2	60'sGrnd	1	RchGndSt	2	RchGndMn	2	60'sJazz	2	TghtGdSt	1
	2	BrghtPno	1	Digital	1	ChorDigi	1	Grnd+EP	3	DigiGrnd	1	Grnd/wDX	4	ChoDigiP	3	GlassPno	3
	3	CP	1	CP-Symph	1	Trem CP	1	BrightCP	2	Digi CP1	2	Jino	3	Digi CP2	3	Petit CP	2
	4	Hnkytnk1	2	Hnkytnk2	2	Hnkytnk3	2	FMHkytnk	2								
	5	Tea	1	Deodar	1	70's EP	1	80's EP	1	Crisp EP	1	Sweetnes	1	Freeway	1	Trem 70	1
	6	FullTine	1	DX EP2	1	DX 1980	1	DX 1990	1	Mllw DX	3	ChrsTine	1	Chrs EP2	1	Chrs1980	1
	7	Harpsi 1	1	Harpsi 2	2	Harpsi 3	1	Harpsi 4	2	RichHpsi	1	ShrpHpsi	2				
	8	Clav 1	1	Clav 2	1	MuteClav	1	Phs Clav	1	PhsClav2	1	Wah Clav	1	DigiClav	1	Ch DgClv	1

Bank Select MSB		96		96		96		96		96		96		96		96	
Bank Select LSB		71		72		73		74		75		76		77		78	
Instrument Group	Pgm# (1-128)		E		E		E		E		E		E		E		E
Piano	1	TghtGdMn	2	PowerGnd	2	MildGrnd	2	Timeworn	1	ChorusMn	1	Doom	1	Phono	1	Room	1
	2	DigiTine	3	SawDigi1	2	SawDigi2	2										
	3																
	4																
	5	Remark	1	Sample	1	Mid 70's	1	Celest80	1	At Once	2	TremDyno	1	TremWurl	1	Phase 70	1
	6	Chrs1990	1	DarkDXEP	2	FTBallad	1	Sym EP2	1	Chrs1982	1	90Ballad	1	816	4	DXEP+Pad	3
	7																
	8	PhsDgClv	1														

E : Number of simultaneously sounding elements.
: Refer to the XG Voice List (MSB=0) of the XG Plug-in System “mother” device.

Bank Select MSB		96		96		96		96		96		96		96		96	
Bank Select LSB		79		80		81		82		83		84		85		86	
Instrument Group	Pgm# (1-128)		E		E		E		E		E		E		E		E
Piano	1	AmbiGrnd	2	FlngGrnd	2	CelesGnd	1	Dbl Pno	2	Montuno	3	GrndDyno	3	David	4	RhodyGnd	3
	2																
	3																
	4																
	5	DlydDyno	1	FlngDyno	1	Dstrtd70	1	Dyno 81	1	Tonight	1	Dyno 83	1	Dbl 70's	2	Digi-Rho	3
	6	DXSynStr	3	DXEP+Cho	3	Balmy DX	3	GlassyEP	4	FM Piano	1	Chrs FMP1	1				
	7																
	8																

Bank Select MSB		96		96		96		96		96		96		96		96	
Bank Select LSB		87		88		89		90		91		92		93		94	
Instrument Group	Pgm# (1-128)		E		E		E		E		E		E		E		E
Piano	1	Perc Pno	4	GrandDX	3	GrandDX2	3	Bob	4	PianoStr	4	PnoStPad	4	SynStrPf	3	PianoPad	4
	2																
	3																
	4																
	5	Choir EP	2	Paddy EP	2	VcePd EP	3	Vibrt EP	3	60's EP	1	Trump	1	DonnyWrl	1	WurliAmp	1
	6																
	7																
	8																

Bank Select MSB		96		96		96		96		96	
Bank Select LSB		95		96		97		98		99	
Instrument Group	Pgm# (1-128)		E		E		E		E		E
Piano	1	OctPf+Pd	4	Pf+Choir	3	ModPd Pf	4	Pia-Tron	3	SitaryPf	4
	2										
	3										
	4										
	5	Dg Wurli	2								
	6										
	7										
	8										

E : Number of simultaneously sounding elements.

: Refer to the XG Voice List (MSB=0) of the XG Plug-in System “mother” device.

■ Plug-in Voice List (for CS6x, CS6R, S80)

Program No.	Plug-in Voice Name	KNOB1	KNOB2
1	StrchGndPf	Reverb Send	
2	StrchRichP	Reverb Send	
3	StrchTghtP	Reverb Send	
4	BrghtGrand	Reverb Send	
5	60's Grand	Reverb Send	
6	60's Jazz	Reverb Send	
7	Timeworn	Reverb Send	
8	ChorusMono	Reverb Send	Chorus Send
9	Phono	Reverb Send	Distortion Drive
10	GrandDyno	Reverb Send	Chorus Send
11	RhodyGrand	Reverb Send	Chorus Send
12	Perc Piano	Reverb Send	Chorus Send
13	Grand DX	Reverb Send	Chorus Send
14	Bob	Reverb Send	Chorus Send
15	Grand+EP	Reverb Send	Chorus Send
16	GlassPiano	Reverb Send	Chorus Send
17	PianoStrng	Reverb Send	
18	SynthStrPf	Reverb Send	Chorus Send
19	Pia-Tron	Reverb Send	
20	BrghtPiano	Reverb Send	
21	ChoDigiP	Reverb Send	Chorus Send
22	CP	Reverb Send	
23	Bright CP	Reverb Send	Chorus Send
24	Jino	Reverb Send	
25	Digital CP	Reverb Send	
26	Petit CP	Reverb Send	Chorus Send
27	Honkytonk	Reverb Send	
28	FMHonkytnk	Reverb Send	
29	Tea	Comp Threshold	Chorus Send
30	Deodar	Comp Threshold	Chorus Send
31	70's EP	Reverb Send	Chorus Send
32	80's EP	Reverb Send	Chorus Send

Program No.	Plug-in Voice Name	KNOB1	KNOB2
33	Crisp EP	Reverb Send	Comp Threshold
34	Sweetness	Phaser Depth	Chorus Send
35	Freeway	AutoPan L/RDpth	AutoPan Speed
36	Remark	Phaser Depth	Phaser Speed
37	Sample	Reverb Send	Chorus Send
38	At Once	Reverb Send	Chorus Send
39	TremroDyno	AutoPan L/RDpth	AutoPan Speed
40	Phase 70	Phaser Depth	Phaser Speed
41	Dyno 81	Reverb Send	Comp Ratio
42	Tonight	Reverb Send	Celeste Depth
43	Digi-Rho	Reverb Send	Chorus Send
44	Choir EP	Reverb Send	Chorus Send
45	Paddy EP	Reverb Send	Chorus Send
46	VcePd EP	Reverb Send	
47	60's EP	Reverb Send	Chorus Send
48	Wurli Amp	Reverb Send	AmpSimulator Drive
49	Digi Wurli	Reverb Send	Chorus Send
50	FullTine	Reverb Send	Chorus Send
51	DX EP	Reverb Send	Chorus Send
52	DX 1980	Reverb Send	Chorus Send
53	DX 1990	Reverb Send	Chorus Send
54	Mellow DX	Reverb Send	Chorus Send
55	816	Reverb Send	Chorus Send
56	DXSynStr	Reverb Send	Celeste Depth
57	Glassy EP	Reverb Send	Chorus Send
58	FM Piano	Reverb Send	Chorus Send
59	Rich Hpsi	Reverb Send	
60	Octv Hpsi	Reverb Send	
61	Clavi	Reverb Send	
62	PhaserClav	Phaser FBLevel	Phaser Speed
63	Wah Clavi	AutoWah Speed	AutoWah Reso
64	ChoDigiClv	Reverb Send	Chorus Send

PLG150-PF Voice Effect Parameter List

NOTE (*1) PF Native Part Param : This parameter can control the Voice Effect.

DELAY L,C,R

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	Lch Delay	0.1 – 715.0ms	1-7150		INS Delay Time
2	Rch Delay	0.1 – 715.0ms	1-7150		INS Delay Time
3	Cch Delay	0.1 – 715.0ms	1-7150		INS Delay Time
4	Feedback Delay	0.1 – 715.0ms	1-7150		INS Delay Time
5	Feedback Level	-63 – +63	1-127		INS Feedback
6	Cch Level	0 – 127	0-127		
7	High Damp	0.1 – 1.0	1-10		
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1-127		INS DryWet
11					
12					
13	EQ Low Frequency	50Hz – 2.0kHz	8-40	table#3	
14	EQ Low Gain	-12 – +12dB	52-76		
15	EQ High Frequency	500Hz – 16.0kHz	28-58	table#3	
16	EQ High Gain	-12 – +12dB	52-76		

CROSS DELAY

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	L->R Delay	0.1 – 355.0ms	1-3550		INS Delay Time
2	R->L Delay	0.1 – 355.0ms	1-3550		INS Delay Time
3	Feedback Level	-63 – +63	1-127		INS Feedback
4	Input Select	L,R,L&R	0-2		
5	High Damp	0.1 – 1.0	1-10		
6					
7					
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1-127		INS DryWet
11					
12					
13	EQ Low Frequency	50Hz – 2.0kHz	8-40	table#3	
14	EQ Low Gain	-12 – +12dB	52-76		
15	EQ High Frequency	500Hz – 16.0kHz	28-58	table#3	
16	EQ High Gain	-12 – +12dB	52-76		

EARLY REF1,EARLY REF2

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	Type	S-H, L-H, Rdm, Rvs, Plt, Spr	0-5		
2	Room Size	0.1 – 7.0	0-44	table#5	
3	Diffusion	0 – 10	0-10		
4	Initial Delay	0.1 – 99.3ms	0-63	table#4	
5	Feedback Level	-63 – +63	1-127		INS Feedback
6	HPF Cutoff	Thru – 8.0kHz	0-52	table#3	
7	LPF Cutoff	1.0k – Thru	34-60	table#3	
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1-127		INS DryWet
11	Liveness	0 – 10	0-10		
12	Density	0 – 3	0-3		
13	High Damp	0.1 – 1.0	1-10		
14					
15					
16					

GATE REVERB / REVERSE GATE

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	Type	TypeA,TypeB	0-1		
2	Room Size	0.1 – 7.0	0-44	table#5	
3	Diffusion	0 – 10	0-10		
4	Initial Delay	0.1 – 99.3ms	0-63	table#4	
5	Feedback Level	-63 – +63	1-127		INS Feedback
6	HPF Cutoff	Thru – 8.0kHz	0-52	table#3	
7	LPF Cutoff	1.0k – Thru	34-60	table#3	
8					
9					
10	Dry/Wet	D63>W – D=W – D<W63	1-127		INS DryWet
11	Liveness	0 – 10	0-10		
12	Density	0 – 3	0-3		
13	High Damp	0.1 – 1.0	1-10		
14					
15					
16					

CHORUS1,2,3,4 / CELESTE1,2,3,4

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	LFO Frequency	0.00Hz – 39.7Hz	0-127	table#1	INS LFO Freq
2	LFO Depth	0 – 127	0-127		INS LFO Depth
3	Feedback Level	-63 – +63	1-127		INS Feedback
4	Delay Offset	0.0 – 50	0-127	table#2	INS Offset
5					
6	EQ Low Frequency	50Hz – 2.0kHz	8-40	table#3	
7	EQ Low Gain	-12 – +12dB	52-76		
8	EQ High Frequency	500Hz – 16.0kHz	28-58	table#3	
9	EQ High Gain	-12 – +12dB	52-76		
10	Dry/Wet	D63>W – D=W – D<W63	1-127		INS DryWet
11					
12					
13					
14					
15	Input Mode	mono/stereo	0-1		
16					

FLANGER1,2,3

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	LFO Frequency	0.00Hz – 39.7Hz	0-127	table#1	INS LFO Freq
2	LFO Depth	0 – 127	0-127		INS LFO Depth
3	Feedback Level	-63 – +63	1-127		INS Feedback
4	Delay Offset	0 – 63	0-63	table#2	INS Offset
5					
6	EQ Low Frequency	50Hz – 2.0kHz	8-40	table#3	
7	EQ Low Gain	-12 – +12dB	52-76		
8	EQ High Frequency	500Hz – 16.0kHz	28-58	table#3	
9	EQ High Gain	-12 – +12dB	52-76		
10	Dry/Wet	D63>W – D=W – D<W63	1-127		INS DryWet
11					
12					
13					
14	LFO Phase Difference	-180 – +180deg	4-124	resolu-tion=3deg.	
15					
16					

SYMPHONIC

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	LFO Frequency	0.00Hz – 39.7Hz	0-127	table#1	INS LFO Freq
2	LFO Depth	0 – 127	0-127		INS LFO Depth
3	Delay Offset	0.0 – 50	0-127	table#2	INS Offset
4					
5					
6	EQ Low Frequency	50Hz – 2.0kHz	8-40	table#3	
7	EQ Low Gain	-12 – +12dB	52-76		
8	EQ High Frequency	500Hz – 16.0kHz	28-58	table#3	
9	EQ High Gain	-12 – +12dB	52-76		
10	Dry/Wet	D63>W – D=W – D<W63	1-127		INS DryWet
11					
12					
13					
14					
15					
16					

AUTO PAN

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	LFO Frequency	0.00Hz – 39.7Hz	0-127	table#1	INS LFO Freq
2	L/R Depth	0 – 127	0-127		INS LFO Depth
3	F/R Depth	0 – 127	0-127		INS LFO Depth
4	PAN Direction	L<->R,L->R,L<-R,Lturn,Rturn,L/R	0-5		
5					
6	EQ Low Frequency	50Hz – 2.0kHz	8-40	table#3	
7	EQ Low Gain	-12 – +12dB	52-76		
8	EQ High Frequency	500Hz – 16.0kHz	28-58	table#3	
9	EQ High Gain	-12 – +12dB	52-76		
10					
11					
12					
13					
14					
15					
16					

ROTARY SPEAKER

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	LFO Frequency	0.00Hz – 39.7Hz	0-127	table#1	INS LFO Freq
2	LFO Depth	0 – 127	0-127		INS LFO Depth
3					
4					
5					
6	EQ Low Frequency	50Hz – 2.0kHz	8-40	table#3	
7	EQ Low Gain	-12 – +12dB	52-76		
8	EQ High Frequency	500Hz – 16.0kHz	28-58	table#3	
9	EQ High Gain	-12 – +12dB	52-76		
10	Dry/Wet	D63>W – D=W – D<W63	1-127		INS DryWet
11					
12					
13					
14					
15					
16					

PHASER 1

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	LFO Frequency	0.00Hz – 39.7Hz	0-127	table#1	INS LFO Freq
2	LFO Depth	0 – 127	0-127		INS LFO Depth
3	Phase Shift Offset	0 – 127	0-127		INS Offset
4	Feedback Level	-63 – +63	1-127		INS Feedback
5					
6	EQ Low Frequency	50Hz – 2.0kHz	8-40	table#3	
7	EQ Low Gain	-12 – +12dB	52-76		
8	EQ High Frequency	500Hz – 16.0kHz	28-58	table#3	
9	EQ High Gain	-12 – +12dB	52-76		
10	Dry/Wet	D63>W – D=W – D<W63	1-127		INS DryWet
11	Stage	6 – 10	6-10		
12					
13					
14					
15					
16					

TREMOLO

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	LFO Frequency	0.00Hz – 39.7Hz	0-127	table#1	INS LFO Freq
2	AM Depth	0 – 127	0-127		INS LFO Depth
3	PM Depth	0 – 127	0-127		INS LFO Depth
4					
5					
6	EQ Low Frequency	50Hz – 2.0kHz	8-40	table#3	
7	EQ Low Gain	-12 – +12dB	52-76		
8	EQ High Frequency	500Hz – 16.0kHz	28-58	table#3	
9	EQ High Gain	-12 – +12dB	52-76		
10					
11					
12					
13					
14	LFO Phase Difference	-180 – +180deg	4-124	resolu-tion=3deg.	
15	Input Mode	mono/stereo	0-1		
16					

DISTORTION / OVERDRIVE

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	Drive	0 – 127	0-127		INS Drive
2	EQ Low Frequency	50Hz – 2.0kHz	8-40	table#3	
3	EQ Low Gain	-12 – +12dB	52-76		
4	LPF Cutoff	1.0k – Thru	34-60	table#3	
5	Output Level	0 – 127	0-127		
6					
7	EQ Mid Frequency	500Hz – 10.0kHz	28-54	table#3	
8	EQ Mid Gain	-12 – +12dB	52-76		
9	EQ Mid Width	1.0 – 12.0	10-120		
10	Dry/Wet	D63>W – D=W – D<W63	1-127		INS DryWet
11	Edge(Clip Curve)	0 – 127	0-127	mild–sharp	INS Clip Curve
12					
13					
14					
15					
16					

AMP SIMULATOR

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

AUTO WAH

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	LFO Frequency	0.00Hz – 39.7Hz	0-127	table#1	INS LFO Freq
2	LFO Depth	0 – 127	0-127		INS LFO Depth
3	Cutoff Frequency Offset	0 – 127	0-127		INS Offset
4	Resonance	1.0 – 12.0	10-120		
5					
6	EQ Low Frequency	50Hz – 2.0kHz	8-40	table#3	
7	EQ Low Gain	-12 – +12dB	52-76		
8	EQ High Frequency	500Hz – 16.0kHz	28-58	table#3	
9	EQ High Gain	-12 – +12dB	52-76		
10	Dry/Wet	D63>W – D=W – D<W63	1-127		INS DryWet
11					
12					
13					
14					
15					
16					

3BAND EQ (MONO)

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	EQ Low Gain	-12 – +12dB	52-76		
2	EQ Mid Frequency	500Hz – 10.0kHz	28-54	table#3	
3	EQ Mid Gain	-12 – +12dB	52-76		
4	EQ Mid Width	1.0 – 12.0	10-120		
5	EQ High Gain	-12 – +12dB	52-76		
6	EQ Low Frequency	50Hz – 2.0kHz	8-40	table#3	
7	EQ High Frequency	500Hz – 16.0kHz	28-58	table#3	
8					
9					
10					
11					
12					
13					
14					
15					
16					

2BAND EQ (STEREO)

No.	Parameter	Display	Value	See Table	PF Native Part Param
1	EQ Low Frequency	50Hz – 2.0kHz	8-40	table#3	
2	EQ Low Gain	-12 – +12dB	52-76		
3	EQ High Frequency	500Hz – 16.0kHz	28-58	table#3	
4	EQ High Gain	-12 – +12dB	52-76		
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

Effect Data Assign Table

table #1
LFO Frequency

Data	Value
0	0.00
1	0.04
2	0.08
3	0.12
4	0.16
5	0.21
6	0.25
7	0.29
8	0.33
9	0.37
10	0.42
11	0.46
12	0.50
13	0.54
14	0.58
15	0.63
16	0.67
17	0.71
18	0.75
19	0.79
20	0.84
21	0.88
22	0.92
23	0.96
24	1.00
25	1.05
26	1.09
27	1.13
28	1.17
29	1.22
30	1.26
31	1.30
32	1.34
33	1.38
34	1.43
35	1.47
36	1.51
37	1.55
38	1.59
39	1.64
40	1.68
41	1.72
42	1.76
43	1.80
44	1.85
45	1.89
46	1.93
47	1.97
48	2.01
49	2.06
50	2.10
51	2.14
52	2.18
53	2.22
54	2.27
55	2.31
56	2.35
57	2.39
58	2.43
59	2.48
60	2.52
61	2.56
62	2.60
63	2.65
64	2.69

Data	Value
65	2.77
66	2.86
67	2.94
68	3.02
69	3.11
70	3.19
71	3.28
72	3.36
73	3.44
74	3.53
75	3.61
76	3.70
77	3.86
78	4.03
79	4.20
80	4.37
81	4.54
82	4.71
83	4.87
84	5.04
85	5.21
86	5.38
87	5.55
88	5.72
89	6.05
90	6.39
91	6.72
92	7.06
93	7.40
94	7.73
95	8.07
96	8.41
97	8.74
98	9.08
99	9.42
100	9.75
101	10.0
102	10.7
103	11.4
104	12.1
105	12.7
106	13.4
107	14.1
108	14.8
109	15.4
110	16.1
111	16.8
112	17.5
113	18.1
114	19.5
115	20.8
116	22.2
117	23.5
118	24.8
119	26.2
120	27.5
121	28.9
122	30.2
123	31.6
124	32.9
125	34.3
126	37.0
127	39.7

table #2
Modulation Delay Offset

Data	Value
0	0.0
1	0.1
2	0.2
3	0.3
4	0.4
5	0.5
6	0.6
7	0.7
8	0.8
9	0.9
10	1.0
11	1.1
12	1.2
13	1.3
14	1.4
15	1.5
16	1.6
17	1.7
18	1.8
19	1.9
20	2.0
21	2.1
22	2.2
23	2.3
24	2.4
25	2.5
26	2.6
27	2.7
28	2.8
29	2.9
30	3.0
31	3.1
32	3.2
33	3.3
34	3.4
35	3.5
36	3.6
37	3.7
38	3.8
39	3.9
40	4.0
41	4.1
42	4.2
43	4.3
44	4.4
45	4.5
46	4.6
47	4.7
48	4.8
49	4.9
50	5.0
51	5.1
52	5.2
53	5.3
54	5.4
55	5.5
56	5.6
57	5.7
58	5.8
59	5.9
60	6.0
61	6.1
62	6.2
63	6.3
64	6.4

Data	Value
65	6.5
66	6.6
67	6.7
68	6.8
69	6.9
70	7.0
71	7.1
72	7.2
73	7.3
74	7.4
75	7.5
76	7.6
77	7.7
78	7.8
79	7.9
80	8.0
81	8.1
82	8.2
83	8.3
84	8.4
85	8.5
86	8.6
87	8.7
88	8.8
89	8.9
90	9.0
91	9.1
92	9.2
93	9.3
94	9.4
95	9.5
96	9.6
97	9.7
98	9.8
99	9.9
100	10.0
101	11.1
102	12.2
103	13.3
104	14.4
105	15.5
106	17.1
107	18.6
108	20.2
109	21.8
110	23.3
111	24.9
112	26.5
113	28.0
114	29.6
115	31.2
116	32.8
117	34.3
118	35.9
119	37.5
120	39.0
121	40.6
122	42.2
123	43.7
124	45.3
125	46.9
126	48.4
127	50.0

table #3
EQ Frequency

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

table #4
Reverb time

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

table #5
Delay Time (200.0ms)

Data	Value
0	0.1
1	1.7
2	3.2
3	4.8
4	6.4
5	8.0
6	9.5
7	11.1
8	12.7
9	14.3
10	15.8
11	17.4
12	19.0
13	20.6
14	22.1
15	23.7
16	25.3
17	26.9
18	28.4
19	30.0
20	31.6
21	33.2
22	34.7
23	36.3
24	37.9
25	39.5
26	41.0
27	42.6
28	44.2
29	45.7
30	47.3
31	48.9
32	50.5
33	52.0
34	53.6
35	55.2
36	56.8
37	58.3
38	59.9
39	61.5
40	63.1
41	64.6
42	66.2
43	67.8
44	69.4
45	70.9
46	72.5
47	74.1
48	75.7
49	77.2
50	78.8
51	80.4
52	81.9
53	83.5
54	85.1
55	86.7
56	88.2
57	89.8
58	91.4
59	93.0
60	94.5
61	96.1
62	97.7
63	99.3
64	100.8

Data	Value
65	102.4
66	104.0
67	105.6
68	107.1
69	108.7
70	110.3
71	111.9
72	113.4
73	115.0
74	116.6
75	118.2
76	119.7
77	121.3
78	122.9
79	124.4
80	126.0
81	127.6
82	129.2
83	130.7
84	132.3
85	133.9
86	135.5
87	137.0
88	138.6
89	140.2
90	141.8
91	143.3
92	144.9
93	146.5
94	148.1
95	149.6
96	151.2
97	152.8
98	154.4
99	155.9
100	157.5
101	159.1
102	160.6
103	162.2
104	163.8
105	165.4
106	166.9
107	168.5
108	170.1
109	171.7
110	173.2
111	174.8
112	176.4
113	178.0
114	179.5
115	181.1
116	182.7
117	184.3
118	185.8
119	187.4
120	189.0
121	190.6
122	192.1
123	193.7
124	195.3
125	196.9
126	198.4
127	200.0

Parameter List (XG / Modular Synthesis Plug-in System)

Modular Synthesis Plug-in System	XG Plug-in System	(LCD of CS6x/CS6R/S80/etc.)	

(Common Parameter)

Parameter Name	Parameter Name	Group	Parameter
Volume	VOLUME	QED*Level	Vol
Pan	PAN	QED*Level	Pan
Reverb Send	REVERB SEND	QED*Level	RevSend
Chorus Send	CHORUS SEND	QED*Level	ChoSend
LPF Cutoff Frequency	LOW PASS FILTER CUTOFF FREQUENCY	QED*Filter	Cutoff
LPF Resonance	LOW PASS FILTER RESONANCE	QED*Filter	Reso
Attack Time	EG ATTACK TIME	QED*EG	Attack
Decay Time	EG DECAY TIME	QED*EG	Decay
Release Time	EG RELEASE TIME	QED*EG	Release
Pitch Bend Range	BEND PITCH CONTROL	CTL*Pitch	Pitch Bend
Portamento Switch	PORTAMENTO SWITCH	CTL*Pitch	Portamento
Portamento Time	PORTAMENTO TIME	CTL*Pitch	Time
Mono/Poly Mode	MONO/POLY MODE	GEN*Other	Mode
Same Note Number Key On Assign	SAME NOTE NUMBER KEY ON ASSIGN *1	GEN*Other	Assign

(Element Parameter)

Parameter Name	Parameter Name	Group	Parameter
Plug-in Board Voice Bank MSB	BANK SELECT MSB	PLG*Assign	Bank
Plug-in Board Voice Bank LSB	BANK SELECT LSB	PLG*Assign	Bank
Plug-in Board Voice Program Number	PROGRAM NUMBER	PLG*Assign	Number
Note Shift	NOTE SHIFT	PLG*Velocity	NoteSft
Velocity Sense Depth	VELOCITY SENSE DEPTH	PLG*Velocity	Depth
Velocity Sense Offset	VELOCITY SENSE OFFSET	PLG*Velocity	Offset
Pitch EG Initial Level	PITCH EG INITIAL LEVEL	PCH*PEG	InitLvl
Pitch EG Attack Time	PITCH EG ATTACK TIME	PCH*PEG	Attack
Pitch EG Release Level	PITCH EG RELEASE LEVEL *1	PCH*PEG	--Level
Pitch EG Release Time	PITCH EG RELEASE TIME *1	PCH*PEG	Release
LFO Rate	VIBRATO RATE	LFO Param	Speed
LFO Pitch Modulation Depth	VIBRATO DEPTH	LFO Param	PMod
LFO Delay	VIBRATO DELAY	LFO Param	Delay
HPF Cutoff Frequency	HIGH PASS FILTER CUTOFF FREQUENCY	QED*Filter	HPF
EQ Low Gain	EQ BASS GAIN	EQ*Param	LoGain
EQ High Gain	EQ TREBLE GAIN	EQ*Param	HiGain
EQ Low Frequency	EQ BASS FREQUENCY	EQ*Param	LoFreq
EQ High Frequency	EQ TREBLE FREQUENCY	EQ*Param	HiFreq
MW Filter Control	MW LOW PASS FILTER CONTROL	CTL*MW Control	Filter
MW LFO Pitch Modulation Depth	MW LFO PMOD DEPTH	CTL*MW Modulation	PMod
MW LFO Filter Modulation Depth	MW LFO FMOD DEPTH	CTL*MW Modulation	FMod
MW LFO Amplitude Modulation Depth	MW LFO AMOD DEPTH	CTL*MW Modulation	AMod
CAT Pitch Control	CAT PITCH CONTROL	CTL*AT Control	Pitch
CAT Filter Control	CAT LOW PASS FILTER CONTROL	CTL*AT Control	Filter
CAT LFO Pitch Modulation Depth	CAT LFO PMOD DEPTH	CTL*AT Modulation	PMod
CAT LFO Filter Modulation Depth	CAT LFO FMOD DEPTH	CTL*AT Modulation	FMod
CAT LFO Amplitude Modulation Depth	CAT LFO AMOD DEPTH	CTL*AT Modulation	AMod
AC1 Controller Number	AC1 CONTROLLER NUMBER	CTL*AC Control	Source
AC1 Filter Control	AC1 LOW PASS FILTER CONTROL	CTL*AC Control	Filter
AC1 LFO Pitch Modulation Depth	AC1 LFO PMOD DEPTH	CTL*AC Modulation	PMod
AC1 LFO Filter Modulation Depth	AC1 LFO FMOD DEPTH	CTL*AC Modulation	FMod
AC1 LFO Amplitude Modulation Depth	AC1 LFO AMOD DEPTH	CTL*AC Modulation	AMod

*1 : Changing the values of these parameters has no effect on the sound (even though the values change in the display).

1. Channel messages

1.1 Note on/note off

These messages convey keyboard performance data.

Range of note numbers received = C-2...G8
Velocity range = 1...127 (Velocity is received only for note-on)

When the Multi Part parameter “Rcv NOTE MESSAGE” = OFF, that part will not receive these messages.

1.2 Control changes

These messages convey control operation information for volume or pan etc. Their functions are differentiated by the control number (Ctrl#).
If the Multi Part parameter Rcv CONTROL CHANGE = OFF, that part will not receive control changes.

1.2.1 Bank Select
This message selects the voice bank.

Control#	Parameter	Data Range
0	Bank Select MSB	0...127
32	Bank Select LSB	0...127

The Bank Select data will be processed only after a Program Change is received, and then voice bank will change at that time. If you wish to change the voice bank as well as the voice, you must transmit Bank Select and Program Change messages as a set, in the following order: Bank Select MSB, LSB, and Program Change.

1.2.2 Modulation
This message is used primarily to control the depth of vibrato, but the depth of the following 6 types of effect can be controlled. The effect of this message can be changed by the following parameters.

* Multi Part Parameter
l. MW PITCH CONTROL
2. MW FILTER CONTROL
3. MW AMPLITUDE CONTROL
4. MW LFO PMOD DEPTH
5. MW LFO FMOD DEPTH
6. MW LFO AMOD DEPTH
By default, an LFO Pitch Modulation (PMOD) effect will apply.

Control#	Parameter	Data Range
1	Modulation	0...127

If the Multi Part parameter Rcv MODULATION = OFF, that part will not receive Modulation.

1.2.3 Portamento Time
This message controls the degree of Portamento (see 1.2.9).

Control#	Parameter	Data Range
5	Portamento Time	0...127

When Portamento is ON, this regulates the speed of the pitch change. A value of 0 is the shortest Portamento time, and 127 is the longest Portamento time.

1.2.4 Data Entry
This message sets the value of the parameter which was specified by RPN (see 1.2.18) and NRPN (see 1.2.17).

Control#	Parameter	Data Range
6	Data Entry MSB	0...127
38	Data Entry LSB	0...127

1.2.5 Main Volume
This message controls the volume of each part. (It is used to adjust the volume balance between parts.)

Control#	Parameter	Data Range
7		Main Volume0...127

When the Multi Part parameter Rcv VOLUME = OFF, that part will not receive Main Volume. With a value of 0 there will be no sound, and a value of 127 will produce the maximum volume.

1.2.6 Panpot
This message controls the panning (stereo location) of each part.

Control#	Parameter	Data Range
10	Pan	0...64...127

When the Multi Part parameter Rcv PAN = OFF, that part will not receive Panpot. 0 is left, 64 is center, and 127 is right.

1.2.7 Expression
This message controls expression for each part. It is used to create volume changes during a song.

Control#	Parameter	Data Range
1l		Expression0...127

If the Multi Part parameter Rcv EXPRESSION = OFF, that part will not receive Expression.

1.2.8 Holdl
This message controls sustain pedal on/off.

Control#	Parameter	Data Range
64		Hold10...63, 64...127 (OFF, ON)

When this is ON, currently-sounding notes will continue to sound even if note-off messages are received. If the Multi Part parameter Rcv HOLD1 = OFF, that part will not receive Holdl.

1.2.9 Portamento
This message controls Portamento pedal on/off.

Control#	Parameter	Data Range
65	Portamento	0...63, 64...127 (OFF, ON)

When ON, Portamento produces a smooth glide connecting two notes of different pitch. The time over which the pitch changes is adjusted by Portamento Time (see 1.2.3). When the Multi Part Parameter MONO/POLY MODE = MONO, the tone will also change smoothly (legato) if Portamento = ON.
If the Multi Part parameter Rcv PORTAMENTO = OFF, that part will not receive Portamento.

1.2.10 Sostenuto
This message controls sostenuto pedal on/off.

Control#	Parameter	Data Range
66	Sostenuto	0...63, 64...127 (OFF, ON)

If sostenuto is turned on while a note is sounding, that note will be sustained until sostenuto is turned OFF.
If the Multi Part parameter Rcv SOSTENUTO = OFF, that part will not receive Sostenuto.

1.2.11 Soft Pedal
This message controls soft pedal on/off.

Control#	Parameter	Data Range
67	Soft Pedal	0...63, 64...127 (OFF, ON)

When ON, the sound is soft.
If the Multi Part parameter Rcv SOFT PEDAL = OFF, that part will not receive the Soft Pedal.

1.2.12 Harmonic Content
This message adjusts the resonance of the filter that is specified for the sound.

Control#	Parameter	Data Range
71	Harmonic Content	0...64...127 (-64...0...+63)

Since this is a relative change parameter, it specifies an increase or decrease relative to 64. Higher values will produce a more distinctive sound.
For some sounds, the effective range may be less than the possible range of settings.

1.2.13 Release Time
This message adjusts the EG release time that was specified by the sound data.

Control#	Parameter	Data Range
72	Release Time	0...64... 127 (-64...0...+63)

Since this is a relative change parameter, it specifies an increase or decrease relative to 64. Increasing this value will lengthen the release time that follows a note-off.

1.2.14 Attack Time
This message adjusts the EG attack time that was specified by the sound data.

Control#	Parameter	Data Range
73	Attack Time	0...64... 127 (-64...0...+63)

Since this is a relative change parameter, it specifies an increase or decrease relative to 64. Increasing this value will make the attack more gradual, and decreasing this value will make the attack sharper.

1.2.15 Brightness
This message adjusts the cutoff frequency of the low pass filter specified by the sound data.

Control#	Parameter	Data Range
74	Brightness	0...64...127 (-64...0...+63)

Since this is a relative change parameter, it specifies an increase or decrease relative to 64. Lower values will produce a more mellow sound.
For some sounds, the effective range may be less than the possible range of settings.

1.2.16 Data Increment/Decrement (for RPN)
This message is used to increment or decrement values for parameters specified by RPN (see 1.2.18), in steps of 1.

Control#	Parameter	Data Range
96	RPN Increment	—
97	RPN Decrement	—

The data byte is ignored.

1.2.17 NRPN (Non-registered parameter number)
This is a message for setting the sound for things like vibrato, filter or EG. Use NRPN MSB and NRPN LSB to specify the parameter that you wish to modify, and then use Data Entry (see 1.2.4) to set the value for the specified parameter.

Control#	Parameter	Data Range
98	NRPN LSB	0...127
99	NPRN MSB	0...127

If the Multi Part parameter Rcv NRPN = OFF, that part will not receive NRPN.

The following NRPN messages can be received.

NRPN MSB	NRPN LSB	Data Entry*1 MSB	Data Entry*1 LSB	Parameter Name and Data Range
01H	08H	mm	-- *2	Vibrato rate mm: 00H - 40H - 7FH (-64 ...0...+63)
01H	09H	mm	--	Vibrato depth mm: 00H - 40H - 7FH (-64 ...0...+63)
01H	0AH	mm	-- *3	Vibrato delay mm: 00H - 40H - 7FH (-64 ...0...+63)
01H	20H	mm	--	Low pass filter cutoff frequency mm: 00H - 40H - 7FH (-64 ...0...+63)
01H	21H	mm	--	Low pass filter resonance mm: 00H - 40H - 7FH (-64 ...0...+63)
01H	63H	mm	--	EG Attack Time mm: 00H - 40H - 7FH (-64 ...0...+63)
01H	64H	mm	--	EG Decay Time mm: 00H - 40H - 7FH (-64 ...0...+63)
01H	66H	mm	--	EG Release Time mm: 00H - 40H - 7FH (-64 ...0...+63)

*1 See 1.2.4
*2 "--" means that the set value will be ignored.
*3 Adjusts the time after the note is played until vibrato begins to take effect. The effect will begin more quickly for lower values, and more slowly for higher values.

1.2.17 RPN (Registered parameter number)
This message is used to specify part parameters such as Pitch Bend Sensitivity or Tuning. Use RPN MSB and RPN LSB to specify the parameter that you wish to modify, and then use Data Entry (see 1.2.4) to set the value of the specified parameter.

Control#	Parameter	Data Range
100	RPN LSB	0 ... 127
101	RPN MSB	0 ... 127

If the Multi Part parameter Rcv RPN = OFF, that part will not receive this message.

The following RPN messages can be received.

RPN MSB	RPN LSB	Data Entry*1 MSB	Data Entry*1 LSB	Parameter name and value range
00	00H	mm	--*2	Pitch bend sensitivity mm: 00-18H (0...+24 semitones) Specify up to 2 octaves in semitone steps
00	01H	mm	ll	Fine tuning mm ll: 00H 00H -100 cents : : mm 11: 40H 00H 0 cents : : mm ll: 7FH 7FH +100 cents Note: The next after mm 11: 00H 7FH (= -87.5) cent is 01H 00H (-87.4) cents.
00H	02H	mm	--	Coarse tuning mm: 28H - 40H - 58H (-24...0...+24 semitones)
7FH	7FH	--	--	RPN Null This empties settings from RPN and NRPN numbers. Internal data is not affected.

*1 Refer to 1.2.4
*2 "--" means that the set value will be ignored.

1.2.19 Assignable controller
By assigning a control change number of 0...95 to a part, application of effects can be controlled. This device allows two control change numbers (AC1 and AC2) to be specified for each part.
The following parameters specify the effect of AC1 and AC2:

* Multi Part Parameter
1. AC1, AC2 PITCH CONTROL
2. AC1, AC2 FILTER CONTROL
3. AC1, AC2 AMPLITUDE CONTROL
4. AC1, AC2 LFO PMOD DEPTH
5. AC1, AC2 LFO FMOD DEPTH
6. AC1, AC2 LFO AMOD DEPTH

The AC1 control change number is specified by the Multi Part parameter ACl CONTROLLER NUMBER, and the AC2 control change number is specified by the Multi Part parameter AC2 CONTROLLER NUMBER.

1.3 Channel mode messages

These messages specify the basic operation of a part.

1.3.1 All Sound Off
This message silences all notes being played on the corresponding channel. However, channel messages such as Note-on and Hold-on will be maintained in their present state.

Control#	Parameter	Data Range
120	All Sound Off	0

1.3.2 Reset All Controllers
This message changes the settings of the following controllers.

Controller	Value
Pitch bend change	±0 (Center)
Channel pressure	0 (OFF)
Polyphonic key pressure	0 (OFF)
Modulation	0 (OFF)
Expression	127 (Max.)
Hold	0 (OFF)
Portamento	0 (OFF)
Sostenuto	0 (OFF)
RPN	Number unset, internal data is not affected.
NRPN	Number unset, internal data is not affected.

The following data is not changed
Parameter values specified for program change, bank select MSB/LSB, volume, pan, effect send levels 1, 3, 4, RPN and NRPN.

Control#	Parameter	Data Range
121	Reset All Controllers	0

1.3.3 All Note Off
This message turns off all notes which are currently on for the corresponding part.
However, if Hold 1 or Sostenuto are on, notes will continue to sound until these are turned off.

Control#	Parameter	Data Range
123	All Note Off	0

1.3.4 Omni Off
Works the same as when All Note Off is received.

Control#	Parameter	Data Range
124	Omni Off	0

1.3.5 Omni On
Works the same as when All Note Off is received.

Control#	Parameter	Data Range
125	Omni On	0

1.3.6 Mono
Works the same as when All Sound Off is received, and if the value (mono number) is in the range of 0... 16, sets the corresponding channel to Mode4* (m = 1).

Control#	Parameter	Data Range
126	Mono	0 ... 16

* Mode4 is a state in which only channel messages on the specified channel will be received, and notes will be played individually (monophonically).

1.3.7 Poly
Works the same as when All Sound Off is received, and sets the corresponding channel to Mode3*.

Control#	Parameter	Data Range
127	Poly	0

* Mode3 is when channel messages will be received only on the specified channel, and notes will be sounded polyphonically.

1.4 Program change

This message is used to switch voices.
It changes the program number on the receiving channel. When the change is to include the voice bank, transmit the program change after sending the Bank Select message (see 1.2.1).
If the Multi Part parameter Rcv PROGRAM CHANGE = OFF, that part will not receive program changes.

1.5 Pitch bend

This message conveys information on pitch bend operations.

Basically, this message is for changing the pitch of a part, but the depth of the following six effects can be controlled.
The effect of this message can be modified by the following parameters.

* Multi Part Parameter
1. BEND PITCH CONTROL
2. BEND FILTER CONTROL
3. BEND AMPLITUDE CONTROL
4. BEND LFO PMOD DEPTH
5. BEND LFO FMOD DEPTH
6. BEND LFO AMOD DEPTH

By default, the Pitch Control effect is applied.
If the Multi Part parameter Rcv PITCH BEND CHANGE = OFF, that part will not receive pitch bend messages.

1.6 Channel aftertouch

This message conveys the pressure after the key is played on the keyboard (for an entire MIDI channel). The pressure can be controlled for each part. This message will affect the notes currently playing.

The effect of this message can be modified by the following parameters.

* Multi Part Parameter
1. CAT PITCH CONTROL
2. CAT FILTER CONTROL
3. CAT AMPLITUDE CONTROL
4. CAT LFO PMOD DEPTH
5. CAT LFO FMOD DEPTH
6. CAT LFO AMOD DEPTH

By default, there will be no effect.
If the Multi Part parameter Rcv CHANNEL AFTER TOUCH = OFF, that part will not receive Channel Aftertouch.

1.7 Polyphonic aftertouch

This message conveys the pressure after the key is played on the keyboard (for individual note number). The pressure can be controlled for each part. This message will affect the notes currently playing.

The effect of this message is determined by the following Multi Part parameters.

1. PAT PITCH CONTROL
2. PAT AMPLITUDE CONTROL
3. PAT LFO PMOD DEPTH
4. PAT LFO FMOD DEPTH
5. PAT LFO AMOD DEPTH

By default, there will be no effect.
If the Multi Part parameter Rcv CHANNEL AFTER TOUCH = OFF, that part will not receive Polyphonic Aftertouch.

2. System exclusive messages

2.1 Parameter changes

This device uses the following parameter changes.
[UNIVERSAL REALTIME MESSAGE]
1) Master Volume

[UNIVERSAL NON REALTIME MESSAGE]
1) General MIDI System On

[XG PARAMETER CHANGE]
1) XG System on
2) XG System parameter change
3) Multi Part parameter change

[PLG150-PF NATIVE PARAMETER CHANGE]
1) PLG150-PF System parameter change
2) PLG150-PF Part parameter change

2.1.1 Universal realtime messages

2.1.1.1 Master Volume

	11110000	F0H	= Exclusive status
	01111111	7FH	= Universal Real Time
	01111111	7FH	= ID of target device
	00000100	04H	= Sub-ID #1=Device Control Message
	00000001	01H	= Sub-ID #2=Master Volume
*	0sssssss	SSH	= Volume LSB
	0ttttttt	TTH	= Volume MSB
	11110111	F7H	= End of Exclusive
	or		
	11110000	F0H	= Exclusive status
	01111111	7FH	= Universal Real Time
	0xxxnnnn	XNH	= Device Number, xxx = don't care
	00000100	04H	= Sub-ID #1=Device Control Message
	00000001	01H	= Sub-ID #2=Master Volume
	0sssssss	SSH	= Volume LSB
	0ttttttt	TTH	= Volume MSB
	11110111	F7H	= End of Exclusive

When received, the Volume MSB is reflected in the System Parameter MASTER VOLUME.

* The binary expression 0sssssss is expressed in hexadecimal as SSH. The same applies elsewhere.

2.1.2 Universal non-realtime messages

2.1.2.1 General MIDI System On

11110000	F0H	= Exclusive status
01111110	7EH	= Universal Non-Real Time
01111111	7FH	= ID of target device
00001001	09H	= Sub-ID #1=General MIDI Message
00000001	01H	= Sub-ID #2=General MIDI On
11110111	F7H	= End of Exclusive
or		
11110000	F0H	= Exclusive status
01111110	7EH	= Universal Non-Real Time
0xxxnnnn	XNH	= N:Device Number, X:don't care
00001001	09H	= Sub-ID #1=General MIDI Message
00000001	01H	= Sub-ID #2=General MIDI On
11110111	F7H	= End of Exclusive

When this message is received, the SOUND MODULE MODE is set to XG, and all data except for MIDI Master Tuning will be restored to the default value.
However this message will not be received when SOUND MODULE MODE = C/M.
Since approximately 50ms is required to process this message, be sure to allow an appropriate interval before sending the next message.

2.1.3 XG Parameter Change

This message sets XG-related parameters. Each message can set a single parameter.
The message format is as follows.

11110000	F0H	Exclusive status
01000011	43H	YAMAHA ID
0001nnnn	1NH	N:device Number
01001100	4CH	Model ID
0ggggggg	GGH	Address High
0mmmmmmm	MMH	Address Mid
0lllllll	LLH	Address Low
0vvvvvvv	VVH	Data
:	:	
11110111	F7H	End of Exclusive

For parameters whose Data Size is 2 or 4, the appropriate amount of data will be transmitted as indicated by Size.

2.1.3.1 XG System On

11110000	F0H	Exclusive status
01000011	43H	YAMAHA ID
0001nnnn	1NH	N:device Number
01001100	4CH	Model ID
00000000	00H	Address High
00000000	00H	Address Mid
01111110	7EH	Address Low
00000000	00H	Data
11110111	F7H	End of Exclusive

When ON is received, the SOUND MODULE MODE changes to XG. Since approximately 50ms is required to process this message, be sure to allow an appropriate interval before sending the next message.

2.1.3.2 XG System parameter change

This message sets the XG SYSTEM block (see Tables <1-1> and <1-2>).

2.1.3.3 Multi Part parameter change
This message sets the Multi Part block (see Tables <1-1> and <1-3>).

2.1.4 PLG150-PF Native parameter change

This message sets parameters unique to the PLG150-PF.
Each message sets a single parameter. The message format is as follows.

11110000	F0H	Exclusive status
01000011	43H	YAMAHA ID
0001nnnn	1NH	N:Device Number
01100111	67H	Model ID
0ggggggg	GGH	Address High
0mmmmmmm	MMH	Address Mid
0lllllll	LLH	Address Low
0vvvvvvv	VVH	Data
:	:	
11110111	F7H	End of Exclusive

For parameters whose Data Size is 2 or 4, the appropriate amount of data will be transmitted as indicated by Size.

2.1.4.1 PLG150-PF System parameter change

This message sets the PLG150-PF SYSTEM block (see Tables <2-1> and <2-2>).

2.1.4.2 PLG150-PF Part parameter change

This message sets the PLG150-PF MULTI PART block (see Tables <2-1> and <2-3>).

2.2 Bulk dump

This device uses only the following bulk dump messages.

[XG BULK DUMP]
1) XG System bulk dump
2) Multi Part bulk dump

[PLG150-PF NATIVE BULK DUMP]
1) System bulk dump
2) Part bulk dump

2.2.1 XG bulk dump

This message sets XG-related parameters. Unlike parameter change messages, a single message can modify multiple parameters.
This message format is as follows.

11110000	F0H	Exclusive status
01000011	43H	YAMAHA ID
0000nnnn	0NH	N:Device Number
01001100	4CH	Model ID
0sssssss	SSH	ByteCountMSB
0ttttttt	TTH	ByteCountLSB
0ggggggg	GGH	Address High
0mmmmmmm	MMH	Address Mid
0lllllll	LLH	Address Low
0vvvvvvv	VVH	Data
:	:	
0kkkkkkk	KKH	Check-sum
11110111	F7H	End of Exclusive

Address and Byte Count are given in tables <1-n>.
Byte Count is indicated by the total size of the Data in tables <1-n>.
Bulk dump is received when the beginning of the block is specified in "Address."
"Block" indicates the unit of the data string that is indicated in tables <1-n> as "Total Size."
Check sum is the value that produces a lower 7 bits of 0 when this Start Address, Byte Count, Data, and the Check sum itself are added.

2.2.1.1 XG System bulk dump

This message sets the XG SYSTEM block (see Tables <1-1> and <1-2>).

2.2.1.2 Multi Part bulk dump

This message sets the MULTI PART block (see Tables <1-1> and <1-3>).

2.2.2 PLG150-PF Native Bulk Dump

This message sets the special parameters for PLG150-PF.
Unlike Parameter change, one message can modify multiple parameters.

11110000	F0H	Exclusive status
01000011	43H	YAMAHA ID
0000nnnn	0NH	N:Device Number
01100111	67H	Model ID
0sssssss	SSH	ByteCountMSB
0ttttttt	TTH	ByteCountLSB
0ggggggg	GGH	Address High
0mmmmmmm	MMH	Address Mid
0lllllll	LLH	Address Low
0vvvvvvv	VVH	Data
:	:	
0kkkkkkk	KKH	Check-sum
11110111	F7H	End of Exclusive

The detail are the same as for 2.2.1 XG Bulk Dump. However, see Tables <2-n> for the Address, Byte, Count, and block.

2.2.2.1 PLG150-PF Native System bulk dump

This message sets the PLG150-PF SYSTEM block (see Tables <2-1> and <2-2>).

2.2.2.2 PLG150-PF Native Part bulk dump

This message sets the PLG150-PF MULTI PART block (see Tables <2-1> and <2-3>).

3. Realtime Messages

3.1 Active Sensing

a) Send
This is not transmitted.

b) Receive
After FE is received one time, if the MIDI signal does not come within 400 msec, PLG150-PF will act the same as when ALL SOUND OFF, ALL NOTE OFF, and RESET ALL CONTROLLERS are received,
and return to the condition where has not been received once.

<1-1>
Parameter Base Address
MODEL ID = 4

Parameter	Address (H)	Address (M)	Address (L)	Description
XG SYSTEM	00	00	00	System
	00	00	7E	XG System On
	00	00	7F	All Parameter Reset
MULTI PART	08 : 08	00 : 0F	00 : 00	Multi Part 1 : Multi Part 16
MULTI PART (additional)	0A : 0A	00 : 0F	00 : 00	Multi Part 1 : Multi Part 16
PART ASSIGN	70	04	00	PLG150-PF Part Assign

<1-2>
MIDI Parameter Change table (XG SYSTEM)

Address (H)			Size (H)	Data (H)	Parameter Name	Description	Default (H)
0	0	0	4	00 - 0F	MASTER TUNE	-102.4...0...+102.3[cent]	00 04 00 00
		1		00 - 0F		1st bit3-0→bit15-12	
		2		00 - 0F		2nd bit3-0→bit11-8	
		3		00 - 0F		3rd bit3-0→bit7-4	
						4th bit3-0→bit3-0	
		4	1	00 - 7F	MASTER VOLUME**	0...127	7F
		5	1	00 - 7F	MASTER ATTENUATOR**	0...127	0
		6	1	28 - 58	TRANSPOSE	-24...0...+24[semitones]	40
		7D	1		NOT USED		
		7E	1	0	XG SYSTEM ON	00=XG system ON (receive only)	--
		7F	1	0	ALL PARAMETER RESET	00=ON (receive only)	--
TOTAL SIZE			7				

** Processed on the platform side (CS6x, MU128, etc.)

<1-3>
MIDI Parameter Change table (MULTI PART)

Address (H)			Size (H)	Data (H)	Parameter Name	Description	Default (H)
8	nn	0	1		NOT USED		
	nn	1	1	00 - 7F	BANK SELECT MSB	0...127	0
	nn	2	1	00 - 7F	BANK SELECT LSB	0...127	0
	nn	3	1	00 - 7F	PROGRAM NUMBER	1...128	0
	nn	4	1	00-1F,7F	Rcv CHANNEL	A1...A16, OFF	Part No.
	nn	5	1	00 - 01	MONO/POLY MODE	MONO , POLY	1
	nn	6	1	00 - 02	SAME NOTE NUMBER KEY ON ASSIGN	SINGLE, MULTI,	1
	nn	7	1	00 - 05	PART MODE	NORMAL,	0
	nn	8	1	28 - 58	NOTE SHIFT	-24...0...+24[semitones]	40
	nn	9	2	00 - 0F	DETUNE	-12.8...0...+12.7[Hz]	08 00
	nn	0A		00 - 0F		1st bit3-0→bit7-4	
						2nd bit3-0→bit3-0	
	nn	0B	1	00 - 7F	VOLUME**	0...127	64
	nn	0C	1	00 - 7F	VELOCITY SENSE DEPTH	0...127	40
	nn	0D	1	00 - 7F	VELOCITY SENSE OFFSET	0...127	40
	nn	0E	1	00 - 7F	PAN**	C, L63...C...R63	40
	nn	0F	1	00 - 7F	NOTE LIMIT LOW	C-2...G8	0
	nn	10	1	00 - 7F	NOTE LIMIT HIGH	C-2...G8	7F
	nn	11	1	00 - 7F	DRY LEVEL**	0...127	7F
	nn	12	1	00 - 7F	CHORUS SEND**	0...127	0
	nn	13	1	00 - 7F	REVERB SEND**	0...127	28
	nn	14	1	00 - 7F	VARIATION SEND**	0...127	0
	nn	15	1	00 - 7F	VIBRATO RATE	-64...0...+63	40
	nn	16	1	00 - 7F	VIBRATO DEPTH	-64...0...+63	40
	nn	17	1	00 - 7F	VIBRATO DELAY	-64...0...+63	40
	nn	18	1	00 - 7F	LOW PASS FILTER CUTOFF FREQUENCY	-64...0...+63	40
	nn	19	1	00 - 7F	LOW PASS FILTER RESONANCE	-64...0...+63	40
	nn	1A	1	00 - 7F	EG ATTACK TIME	-64...0...+63	40
	nn	1B	1	00 - 7F	EG DECAY TIME	-64...0...+63	40
	nn	1C	1	00 - 7F	EG RELEASE TIME	-64...0...+63	40
	nn	1D	1	28 - 58	MW PITCH CONTROL	-24...0...+24[semitones]	40
	nn	1E	1	00 - 7F	MW LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40
	nn	1F	1	00 - 7F	MW AMPLITUDE CONTROL**	-100...0...+100[%]	40
	nn	20	1	00 - 7F	MW LFO PMOD DEPTH	0...127	0A
	nn	21	1	00 - 7F	MW LFO FMOD DEPTH	0...127	00
	nn	22	1	00 - 7F	MW LFO AMOD DEPTH	0...127	0
	nn	23	1	28 - 58	BEND PITCH CONTROL	-24...0...+24[semitones]	42
	nn	24	1	00 - 7F	BEND LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40
	nn	25	1	00 - 7F	BEND AMPLITUDE CONTROL**	-100...0...+100[%]	40
	nn	26	1	00 - 7F	BEND LFO PMOD DEPTH	0...127	0
	nn	27	1	00 - 7F	BEND LFO FMOD DEPTH	0...127	00
	nn	28	1	00 - 7F	BEND LFO AMOD DEPTH	0...127	0
TOTAL SIZE			29				

Address (H)	Size (H)	Data (H)	Parameter Name	Description	Default (H)
nn 30	1	00 - 01	Rcv PITCH BEND	OFF, ON	1
nn 31	1	00 - 01	Rcv CH AFTER TOUCH(CAT)	OFF, ON	1
nn 32	1	00 - 01	Rcv PROGRAM CHANGE	OFF, ON	1
nn 33	1	00 - 01	Rcv CONTROL CHANGE	OFF, ON	1
nn 34	1	00 - 01	Rcv POLY AFTER TOUCH(PAT)	OFF, ON	1
nn 35	1	00 - 01	Rcv NOTE MESSAGE	OFF, ON	1
nn 36	1	00 - 01	Rcv RPN	OFF, ON	1
nn 37	1	00 - 01	Rcv NRPN	OFF, ON	XGmode=01, GMmode=00
nn 38	1	00 - 01	Rcv MODULATION	OFF, ON	1
nn 39	1	00 - 01	Rcv VOLUME	OFF, ON	1
nn 3A	1	00 - 01	Rcv PAN	OFF, ON	1
nn 3B	1	00 - 01	Rcv EXPRESSION	OFF, ON	1
nn 3C	1	00 - 01	Rcv HOLD1	OFF, ON	1
nn 3D	1	00 - 01	Rcv PORTAMENTO	OFF, ON	1
nn 3E	1	00 - 01	Rcv SOSTENUTO	OFF, ON	1
nn 3F	1	00 - 01	Rcv SOFT PEDAL	OFF, ON	01
nn 40	1	00 - 01	Rcv BANK SELECT	OFF, ON	XGmode=01, GMmode=00
nn 41	1	00 - 7F	SCALE TUNING C	-64...0...+63[cent]	40
nn 42	1	00 - 7F	SCALE TUNING C#	-64...0...+63[cent]	40
nn 43	1	00 - 7F	SCALE TUNING D	-64...0...+63[cent]	40
nn 44	1	00 - 7F	SCALE TUNING D#	-64...0...+63[cent]	40
nn 45	1	00 - 7F	SCALE TUNING E	-64...0...+63[cent]	40
nn 46	1	00 - 7F	SCALE TUNING F	-64...0...+63[cent]	40
nn 47	1	00 - 7F	SCALE TUNING F#	-64...0...+63[cent]	40
nn 48	1	00 - 7F	SCALE TUNING G	-64...0...+63[cent]	40
nn 49	1	00 - 7F	SCALE TUNING G#	-64...0...+63[cent]	40
nn 4A	1	00 - 7F	SCALE TUNING A	-64...0...+63[cent]	40
nn 4B	1	00 - 7F	SCALE TUNING A#	-64...0...+63[cent]	40
nn 4C	1	00 - 7F	SCALE TUNING B	-64...0...+63[cent]	40
nn 4D	1	28 - 58	CAT PITCH CONTROL	-24...0...+24[semitones]	40
nn 4E	1	00 - 7F	CAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40
nn 4F	1	00 - 7F	CAT AMPLITUDE CONTROL**	-100...0...+100[%]	40
nn 50	1	00 - 7F	CAT LFO PMOD DEPTH	0...127	0
nn 51	1	00 - 7F	CAT LFO FMOD DEPTH	0...127	0
nn 52	1	00 - 7F	CAT LFO AMOD DEPTH	0...127	0
nn 53	1	28 - 58	PAT PITCH CONTROL	-24...0...+24[semitones]	40
nn 54	1	00 - 7F	PAT LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40
nn 55	1	00 - 7F	PAT AMPLITUDE CONTROL**	-100...0...+100[%]	40
nn 56	1	00 - 7F	PAT LFO PMOD DEPTH	0...127	0
nn 57	1	00 - 7F	PAT LFO FMOD DEPTH	0...127	0
nn 58	1	00 - 7F	PAT LFO AMOD DEPTH	0...127	0
nn 59	1	00 - 5F	AC1 CONTROLLER NUMBER	0...95	10
nn 5A	1	28 - 58	AC1 PITCH CONTROL	-24...0...+24[semitones]	40
nn 5B	1	00 - 7F	AC1 LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40
nn 5C	1	00 - 7F	AC1 AMPLITUDE CONTROL**	-100...0...+100[%]	40
nn 5D	1	00 - 7F	AC1 LFO PMOD DEPTH	0...127	0
nn 5E	1	00 - 7F	AC1 LFO FMOD DEPTH	0...127	0
nn 5F	1	00 - 7F	AC1 LFO AMOD DEPTH	0...127	0
nn 60	1	00 - 5F	AC2 CONTROLLER NUMBER	0...95	11
nn 61	1	28 - 58	AC2 PITCH CONTROL	-24...0...+24[semitones]	40
nn 62	1	00 - 7F	AC2 LOW PASS FILTER CONTROL	-9600...0...+9450[cent]	40
nn 63	1	00 - 7F	AC2 AMPLITUDE CONTROL**	-100...0...+100[%]	40
nn 64	1	00 - 7F	AC2 LFO PMOD DEPTH	0...127	0
nn 65	1	00 - 7F	AC2 LFO FMOD DEPTH	0...127	0
nn 66	1	00 - 7F	AC2 LFO AMOD DEPTH	0...127	0
nn 67	1	00 - 01	PORTAMENTO SWITCH	OFF, ON	0
nn 68	1	00 - 7F	PORTAMENTO TIME	0...127	0
nn 69	1	00 - 7F	PITCH EG INITIAL LEVEL	-64...0...+63	40
nn 6A	1	00 - 7F	PITCH EG ATTACK TIME	-64...0...+63	40
nn 6B	1	00 - 7F	PITCH EG RELEASE LEVEL	-64...0...+63	40
nn 6C	1	00 - 7F	PITCH EG RELEASE TIME	-64...0...+63	40
nn 6D	1	01 - 7F	VELOCITY LIMIT LOW	1...127	1
nn 6E	1	01 - 7F	VELOCITY LIMIT HIGH	1...127	7F
TOTAL SIZE	3F				

nn = PART NUMBER

** Processed on the platform side (CS6x, MU128, etc.)

<1-4>

MIDI Parameter Change table (PART ASSIGN)

Address (H)	Size (H)	Data (H)	Parameter Name	Description	Default (H)
70 4	nn	1	00 - 0F,7F	Part Assign	A1...A16, OFF0
TOTAL SIZE	1				

nn = PLG150-PF Serial Number

<2-1>
Parameter Base Address
MODEL ID = 67

Parameter	Address			Description
	(H)	(M)	(L)	
PLG150-PF SYSTEM	00	00	00	System
PLG150-PF MULTI PART	60 : 60	00 : OF	00 : 00	Multi Part 1 : Multi Part 16

<2-2>
MIDI Parameter Change table (PLG150-PF Naitve SYSTEM)

Address (H)	Size (H)	Data (H)	Parameter Name	Description	Default (H)
0 0	1	00 - 07	VELOCITY CURVE	normal,Soft1,Soft2,Soft3,Hard1,Hard2,Cross1,Cross2	0
TOTAL SIZE	1				

<2-3>
MIDI Parameter Change table (PLG150-PF Native MULTI PART)

Address (H)	Size (H)	Data (H)	Parameter Name	Description	Default (H)
60 nn 00	1	00 - 7F	Voice EQ Lo Freq	-64...0...+63	40
nn 01	1	00 - 7F	Voice EQ Lo Gain	-64...0...+63	40
nn 02	1	00 - 7F	Voice EQ Hi Freq	-64...0...+63	40
nn 03	1	00 - 7F	Voice EQ Hi Gain	-64...0...+63	40
TOTAL SIZE	4				
60 nn 04	1	00 - 01	PF Mode	OFF, ON	1
nn 05	1	00 - 03	Sustain Curve	normal, step	0
nn 06	1	00 - 7F	EL1 Level	-64...0...+63	40
nn 07	1	00 - 7F	EL2 Level	-64...0...+63	40
nn 08	1	00 - 7F	EL3 Level	-64...0...+63	40
nn 09	1	00 - 7F	EL4 Level	-64...0...+63	40
nn 0A	1	00 - 7F	AC1 EL1 Level	-64...0...+63	40
nn 0B	1	00 - 7F	AC1 EL2 Level	-64...0...+63	40
nn 0C	1	00 - 7F	AC1 EL3 Level	-64...0...+63	40
nn 0D	1	00 - 7F	AC1 EL4 Level	-64...0...+63	40
nn 0E	2	1F81 - 207F	REV Send	-127...0...+127	2000
nn 10	2	1F81 - 207F	CHO Send	1st bit7-0→bit13-7	2000
nn 12	2	1F81 - 207F	INS LFO Freq	2nd bit7-0→bit6-0	2000
nn 14	2	1F81 - 207F	INS LFO Depth		2000
nn 16	1	00 - 7F	INS Feedback Level	-64...0...+63	40
nn 17	2	1F81 - 207F	INS DryWet Level	-127...0...+127	2000
nn 19	2	1F81 - 207F	INS Offset	1st bit7-0→bit13-7	2000
nn 1B	2	1F81 - 207F	INS Drive	2nd bit7-0→bit6-0	2000
nn 1D	2	1F81 - 207F	INS Clip Curve		2000
nn 1F	2	413 - 3BED	INS Delay Time	-7149...0...+7149	2000
TOTAL SIZE	1D				

nn = PART NUMBER

YAMAHA [Piano Plug-in Board] Date:09-JUL-1999
Model PLG150-PF MIDI Implementation Chart Version : 1.0

Function...		Transmitted	Recognized	Remarks
Basic	Default	x	1 - 16	
Channel	Changed	x	1 - 16	
	Default	x	3	
Mode	Messages	x	3,4 (m=1) *2	
	Altered	**********	x	
Note		x	0 - 127	
Number :	True voice	**********	0 - 127	
Velocity	Note ON	x	o 9nH,v=1-127	
	Note OFF	x	x	
After	Key's	x	o *1	
Touch	Ch's	x	o *1	
Pitch Bend		x	o 0-24 semi *1	
	0,32	x	o *1	Bank Select
	1,5,7,10,11	x	o *1	
	6,38	x	o *1	Data Entry
	64-67	x	o *1	
Control	71-75	x	o *1	Sound Controller
	96-97	x	o *1	RPN Inc,Dec
Change	98-99	x	o *1	NRPN LSB,MSB
	100-101	x	o *1	RPN LSB,MSB

Prog Change : True #	x **********	o 0 - 127	
System Exclusive	o *3	o *3	
: Song Pos. Common : Song Sel. : Tune	x x x	x x x	
System : Clock Real Time: Commands	x x	x x	
Aux :All Sound OFF :Reset All Cntrls :Local ON/OFF :All Notes OFF Mes- :Active Sense sages:Reset	x x x x x x	o(120,126,127) o(121) x o(123-125) o x	

Notes: *1 receive if switch is on.
*2 m is always treated as "1" regardless of its value.
*3 transmit/receive if exclusive switch is on.

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

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V418410 909POCP5.2-01A0 Printed in Japan