

Fantom-G Workstation Keyboard



Studio Mode in the Fantom-G

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FGWS10

About the Workshop Booklets

Roland's Fantom G6, G7, and G8—the Fantom-G family—set a new standard for excellence in workstation keyboards, with spectacular sounds and incredible built-in effect-processing muscle. A beautiful full-color LCD display and innovative performance features make getting around a pleasure and make the G6, G7, and G8 a dream to play. For recording, the Fantom-G contains a powerful 152 MIDI/audio track sequencer. Each Fantom-G can also host two Roland ARX SuperNATURAL™ cards whose breakthrough modeling technology provides sounds with amazing sonic detail, expressive possibilities, and sound-design opportunities.

Each Fantom-G Workshop Series booklet focuses on one Fantom-G topic, and is intended as a companion to the *Fantom G6/G7/G8 Owner's Manual*.

This booklet requires Fantom-G Operating System v1.30 or higher. You can download the latest Fantom-G O.S. for free from www.RolandUS.com.

About This Booklet

When the Fantom-G's in Studio mode, it's optimally configured for the sequencing and recording of songs, with more simultaneous sounds and effects than the other modes. This booklet explains Studio mode.

Understanding the Symbols in This Booklet

Throughout this booklet, you'll come across information that deserves special attention—that's the reason it's labeled with one of the following symbols.



A note is something that adds information about the topic at hand.



A tip offers suggestions for using the feature being discussed.

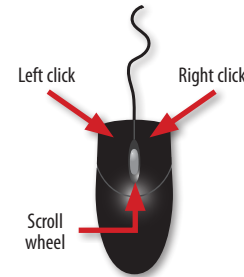


Warnings contain important information that can help you avoid possible damage to your equipment, your data, or yourself.

Clicking or Pressing

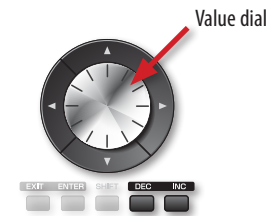
As explained in the *Power User Control Fantom-G Workshop* booklet, you can perform most operations on the Fantom-G using either a connected mouse—sold separately—or the Fantom-G's own front-panel controls.

If you're using a mouse:



You select parameters and objects with a left click. You change the selected parameter's value by turning the scroll wheel. You can often display a menu by right-clicking an object.

If you're using the Fantom-G's controls:



You select parameters and objects with the ◀, ▶, ▲, and ▼ buttons. Change a selected parameter's setting by turning the Value dial or by pressing DEC and INC.

In any situation, the best method to use is always simply the one that feels most natural to you.

Going forward, when we want you to click an onscreen button or its physical counterpart—your choice, of course—we'll simply tell you to “click” the button. The same mouse-centric logic will apply to any other virtual versus physical control issues we encounter. If there's only one way to do something, we'll tell you so. Beyond that, remember that whether you use a mouse or the Fantom-G's built-in controls is entirely up to you.

About Studio Mode and Studio Sets

Studio mode is the mode to use for sequencing and recording songs. It's the place where the Fantom-G brings together the maximum number of sounds and the greatest amount of effect-processing horsepower so you can create complete musical arrangements for your songs. These materials are brought together in a "studio set."



You can save a studio set by itself in a project if you plan to re-use it for other project songs. You don't have to do this, though—when you save a song, its studio set is automatically saved within the song.

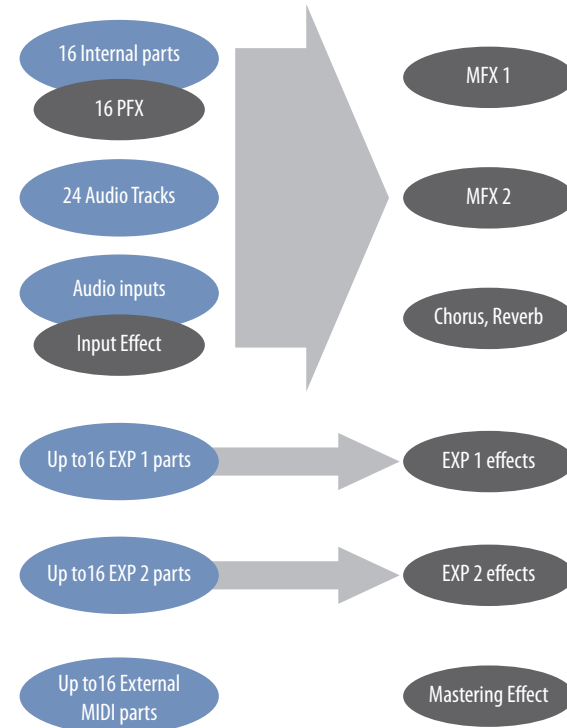
Each studio set has up to 64 parts through which its sounds are played:

- *16 Internal parts*—for Fantom-G patches, rhythm sets, and sample sets.
- *up to 16 EXP 1 parts*—for the ARX board installed in Expansion Slot 1. The number of available EXP 1 parts depends on the ARX board.
- *up to 16 EXP 2 parts*—for the ARX board installed in Expansion Slot 2. The number of available EXP 2 parts depends on the ARX board.
- *16 External parts*—for playing sounds in external MIDI devices using up to 16 MIDI channels.

A studio set also has:

- *24 audio tracks*—for recording and playing back audio.
- *two audio inputs*—you can send to audio tracks, to an MFX, or directly to the Fantom-G's outputs so you can sing or play another instrument along with the Fantom-G, add a sound module, or use backing tracks. The audio inputs have their own input effect processor.
- *a PFX ("Patch Effect")*—for every Internal part, as well as PFX for each ARX part.
- *two MFX ("Multi-Effect")*—any Internal part, audio track, or the audio inputs can use.
- *a global chorus*—any Internal part, audio track, or the audio inputs can use.
- *a global reverb*—any Internal part, audio track, or audio inputs can use.
- *the mastering effect*—with which you can apply the final processing touch to the song's mix.

Here's what's in a studio set:



You can incorporate sounds from an external MIDI device in your main Fantom-G mix connecting its outputs to the Fantom-G's audio inputs.



You can layer Studio mode sounds by assigning different sounds to different parts whose tracks play the same phrases. We'll discuss tracks and phrases in the *Sequencing and Recording Fantom-G Workshop* booklet.

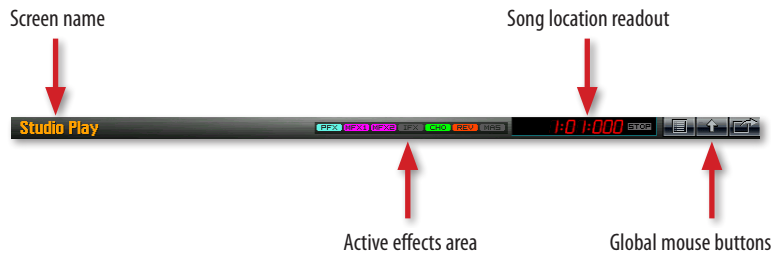
The Studio Play Screens

The Studio Play screens are where you set the behavior of, and mix, the audio tracks and sounds in a song. To display one, press the STUDIO MODE button.



The Fantom-G's Help area shows the name of any parameter you select, in order to help you keep track of what you're doing.

Top Information Strip



- *Screen name*—The Studio Play screen title.
- *Active effects area*—This informational area shows the effects that are currently turned on. When an effect is on, it's lit. Otherwise, it's gray.

In Studio mode, you have 21 simultaneous effects, *plus* any effects provided by your ARX board(s). Each part has its own PFX, while any part, audio track, or the audio input can use MFX1, MFX 2, and/or the global chorus and reverb. The mastering effect can be used on the overall mix.

- *Song location readout*—This shows your present location in the currently loaded song.
- *Global mouse buttons*—Available at the top of all Fantom-G screens, these three icons act as buttons when you're using a mouse. The first button takes you to the Menu screen, the middle one acts as a Back button to the previous screen where that makes sense, and the last button opens the Shortcut menu.

Selecting a Studio Set

You can select a studio set from any Studio Play screen in either of two ways.

- *You can select a studio set from a list of onboard studio sets*—by clicking F5 (Studio Set), choosing the desired studio set, and clicking F8 (Select).



This screen shows you the current project's User studio sets first, followed by the factory preset studio sets.



You can move through the list quickly by holding down the SHIFT button as you turn your mouse's scroll wheel or the Fantom-G's Value dial.



You may want to take advantage of QWERTY searching to quickly find the studio set you want on this screen. See Page 4 of the *Power User Control Fantom-G Workshop* booklet.

- You can use the *Bank and Studio Set Number* parameters—by selecting the type of studio set you want with the Bank parameter, and then the studio set itself using the Studio Set Number parameter.



The factory preset studio set PRST 001:Standard Set provides a good starting point for sequencing, with Part 10 using a rhythm set, and all other parts assigned to a piano sound. The User studio sets in the default project are all good starting points for songs in a variety of styles.



You can also create and save your own User studio sets with sounds you like to use. To learn about saving studio sets, see the *Saving Your Work on the Fantom-G Workshop* booklet.

The Studio Play Screen Buttons

There's a separate Studio Play screen for each kind of track you can have in a song. These screens present parts containing parameters you need for controlling your tracks.

You can select the Studio Play screen you want by clicking its name at the top of a Studio Play screen—the current screen's name is colored aqua.



You can jump to any of these studio play screens by clicking its button with your mouse.

You can also select a Studio Play screen using the using F7 (←) and F8 (→) buttons.

The Studio Mode Channel Strips

The main area of each Studio Play screen looks like a console in a recording studio, with each studio set part presented as a strip in which its most important parameters are arranged vertically. Each strip holds too many parameters to fit onscreen at one time—you can display the upper half of the strip or the lower half, changing your view using the F6 button.



There's also a third channel-strip view that shows what your realtime controllers are up to. Press F6 to move between the three views.



You can also click F3 (Part View) to view all of a part's parameters arranged in a table. We'll discuss the Part View screens later.

Using the Studio Play Channel Strips

Selecting a Part's Channel Strip on a Studio Play Screen

You can select a part's channel strip by:

Clicking the part strip's number with your mouse, or...

...setting the Part parameter to the part strip you want.



You can also move from part to part using the ◀ and ▶ buttons.

Selecting a Part's Sound from Its Channel Strip

Though you can assign a sound to a part during sequencing from the Song Play and Song Edit screens' Part Select window, you can also do this on the Internal, EXP 1, and EXP 2 Studio Play screens. You can:

- press F1 (Patch List)—to select a new sound for the currently selected part, regardless of the part parameter that's currently selected, or
- press the ENTER button—after selecting the part's Patch Name/Number parameter.

Adjusting Parameters with Your Mouse

To adjust a Studio Play parameter with your mouse:

- 1 Click the desired parameter.
- 2 Right-click to display a menu of the parameter's values, or the Patch List screen if the Patch Name/Number parameter is selected.

The Studio Play Screen Channel Strips in Detail

The Audio Track Studio Play Channel Strips

On the Audio Track Studio Play screen you'll find channel strips for mixing a song's audio tracks.

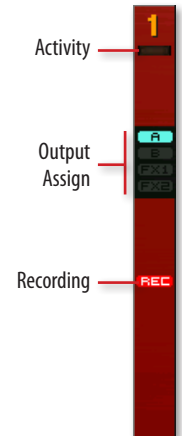
Top Audio Track Strip Section

- **Activity**—This indicator lights green whenever there's sound on the audio track. (This indicator appears in both the top and bottom strip sections.)
- **Mute**—When this switch is turned on, the audio track is silenced.
- **Chorus**—This parameter sets the amount of the audio track's signal sent to the global chorus effect.
- **Reverb**—This parameter sets the amount of the audio track's signal sent to the global reverb effect.
- **Pan**—Set the audio track's placement in the Fantom-G's stereo mix using this parameter.
- **Level**—This sets the audio track's level in the mix.



Bottom Audio Track Strip Section

- **Output Assign**—Select the Fantom-G output to which you want the audio track's audio to go. You can select
 - **A**—to send it to the Fantom-G's balanced main stereo outputs.
 - **B**—to send it to the unbalanced B pair of stereo outputs.
 - **FX 1**—to send it to MFX 1 for processing.
 - **FX 2**—to send it to MFX 2 for processing.
- **Recording**—The setting of this switch determines whether or not recording is turned on for this audio track. When recording is enabled, the switch is lit red.



The Internal Studio Play Channel Strips

The Internal Studio Play screen contains the channel strips for mixing the internal Fantom-G patches, rhythm sets, and sample sets in a song.

Top Internal Strip Section

- **Activity**—This indicator lights green when a note within the part's keyboard range is played. (This indicator appears in both the top and bottom strip sections.)
- **Mute**—When this switch is turned on, the part is silenced.
- **Chorus**—This parameter sets the amount of the part's signal being sent to the global chorus effect.
- **Reverb**—This parameter sets the amount of the part's signal being sent to the global reverb effect.
- **Pan**—Set the part's placement in the Fantom-G's stereo mix using this parameter.
- **Level**—This set the part's level in the mix.



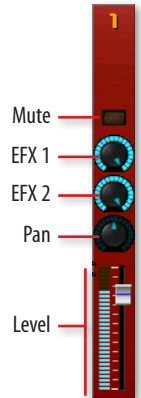
Bottom Internal Strip Section

- **Output Level**—This parameter lets you trim the top section's Level setting for the signal going to the destination selected using the Output Assign parameter, explained next. (It has no effect on the level going to the global chorus and reverb.)
- **Output Assign**—Select the destination to which you want the part's signal to go. You can select
 - **A**—to send the part's sound to the balanced main stereo outputs.
 - **B**—to send the part's sound to the unbalanced B pair of stereo outputs.
 - **1-4**—to send the part's sound to one of the Fantom-G's four mono outputs.
 - **MFX 1**—to send the part's sound to MFX 1.
 - **MFX 2**—to send the part's sound to MFX 2.
- **Recording**—During sequencing, the setting of this switch determines whether or not data for the part is captured on the resulting MIDI track. When sequencing is turned on, the switch is lit red.
- **Keyboard**—When a part's Keyboard switch is turned on, MIDI data for the part is captured on the currently selected MIDI track during sequencing, even when the part itself isn't selected. This allows you to layer patches during sequencing.
- **Arpeggio**—This switch, when it's lit red, designates the part as the one whose sound is played by the arpeggiator.
- **Sample**—This switch, when red, sets a part as the one that can be played from the pads in Sample Pad mode.
- **Rhythm**—This switch, when green, sets a part as the one that can be played from the pads in the Rhythm pad mode.



Top EXP Strip Section

- **Mute**—When this is turned on, the part is silenced.
- **EFX 1**—This parameter sets the amount of the part's signal being sent to the expansion board's first multi-effect processor.
- **EFX 2**—This parameter sets the amount of the part's signal being sent to the expansion board's second multi-effect processor.
- **Pan**—Sets the part's placement in the Fantom-G's stereo mix using this parameter.
- **Level**—This sets the part's level in the mix.



Bottom EXP Strip Section

- **Output Level**—This allows you to trim the top section's Level setting for the signal going to the destination selected using the Output Assign parameter, explained next. (It has no effect on the level going to the global chorus and reverb.)
- **Output Assign**—This parameter selects the destination for the part's sound. You can select
 - **DRY**—to send the part's sound straight to the Fantom-G's main stereo outputs.
 - **EXP**—to send the sound as directed on the expansion board's Effects/Routing screen.
- **Keyboard**—When the Keyboard switch is yellow, the part's MIDI data is captured on the current MIDI track during sequencing even when the part's not selected.
- **Arpeggio**—This switch, when it's lit red, designates the part as the one whose sound is played by the arpeggiator.
- **Rhythm**—This switch, when green, sets a part as the one that can be played from the pads in the Rhythm pad mode.



The EXP 1 and EXP 2 Studio Play Channel Strips

The controls for parts belonging to the ARX board installed in

- **EXP Slot 1**—are displayed on the EXP 1 Studio Play screen.
- **EXP Slot 2**—are displayed on the EXP 1 Studio Play screen.

External Studio Play Channel Strips

This Studio Play screen presents the channel strips you'll need for controlling sounds in a connected external MIDI device.

Top External Strip Section

- **Pan**—Position the external sound's placement in its device's stereo mix by sending it Control Change #10 (Pan) values via MIDI.
- **Level**—Set the external sound's level in its device by transmitting it Control Change #7 (Volume) values via MIDI.



Bottom External Strip Section

- **Keyboard**—When the Keyboard switch is yellow, data for the part is captured on the currently selected MIDI track during sequencing.
- **Arpeggio**—This switch, when it's lit red, designates the part as the one whose sound is played by the arpeggiator.
- **Rhythm**—This switch, when green, sets a part as the one that can be played from the pads in the Rhythm pad mode.



The Part View Screens

The Fantom-G is all about power and flexibility, and for the user who wants to really dig in—or who prefers a less graphic view of things—the Part View screens present tables holding an expanded set of part parameters for the Internal, EXP 1, EXP 2, and External parts in the current studio set.

To get to the Studio mode Part View tables, display the Studio Play screen for the parts with which you want to work and click F3 (Part View).



This is the Level/Pan group of part parameters for this studio set's Internal parts.

Use F1 (Group/Up) and F2 (Group/Down) to select the kind of part parameters you want to edit.

What Type of Part Do You Want To Edit?

Each kind of part has its own set of Part View screens. To select the type of part with which you want to work, use the group's F3-F6 button—or if you're using a mouse, you can click the part group's name at the top of the screen.

Editing Part View Parameters

To select and edit a parameter, click its value with your mouse, or highlight it using the **◀**, **▶**, **▲**, and/or **▼** buttons.



Some of the following descriptions involve sound-programming terms. To learn more, see the *Editing Fantom-G Patches and Rhythm Sets Workshop* booklet or the *Owner's Manual's* Page 89.

The Studio Mode Part Parameters

Group:	Available Settings:
Level/Pan	<p>These are a part's most basic parameters. If the current part group is:</p> <ul style="list-style-type: none"> <i>Internal, EXP1, or EXP 2</i>—you can select a sound for a part, mute it, adjust the part's volume or panning, set whether or not its sound plays in response to MIDI data received from the Fantom-G keyboard or an external MIDI device, and set its MIDI channel. <i>External</i>—you can enter MIDI Bank Select and Program Change values for selecting a sound in an external device when the studio set's selected, or set the MIDI Volume and Pan values to be transmitted at that time.

Keyboard	<p>You can turn a part's KBD switch on or off, set its key range, and set its velocity range. By turning on a part's ARP button, the part's sound is used for the arpeggiator. You can designate a part as the rhythm set part so its sound plays from the pads in Rhythm or Rhythm Pattern mode. When you're working with an Internal or EXP part, you can designate it as the sample set part so its sound is played from the pads when they're in Sample Pad mode.</p>
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Group:	Available Settings:
Output/EFX	<p>These parameters allow you to set the output destination of Internal or EXP part sounds. When the current part group is:</p> <ul style="list-style-type: none"> <i>Internal</i>—a part's sound can be sent directly to the A or B pair of stereo outputs, or to the individual Outputs 1, 2, 3, or 4. You can also set the part's output level and the amount of its sound sent to the chorus and reverb effect processors. <i>EXP 1 or EXP 2</i>—the part's sound can be sent directly to the A stereo output pair with the DRY setting, or, with the EXP setting, follow the routing on the expansion board's Effects/Routing screen. You can also set the part's output level, as well as the amount of the sound to be sent to the expansion board's EFX 1 and EFX 2 processors.
Pitch	<p>For Internal and EXP parts, this group offers parameters for transposing a part's sound, and for overriding its pre-programmed pitch-bend and portamento (glide) settings, depending on the EXP board installed.</p>
Scale Tune	<p>This group allows you to use your own tuning scale with Internal and EXP parts.</p>
Vibrato	<p>With Internal parts, these settings allow you to add vibrato to a part's sound in addition to any that's already pre-programmed into the sound.</p>
Offset	<p>These Internal-part parameters allow you to offset certain important values programmed into a part's sound, including filter cutoff and resonance, and the filter and amp attack and decay envelopes.</p>

Group: Available Settings:

Mono/Poly/Legato With these Internal-part parameters, you can set a part's sound to be monophonic or polyphonic, and you can set it to move from note to note in a legato manner.

MIDI Rx Filter For Internal, EXP, and External parts, this group sets whether a part responds to various MIDI control-change messages. For Internal parts that use the same MIDI channel, you can lock in the timing, or “phase,” of note timings. You can also select individual velocity curves for Internal and External parts.

Voice Reserve

Each sound wave a patch, rhythm set, or sample set plays is a “voice.” The Fantom-G can produce 128 Internal voices at a time, with additional voices available from installed ARX boards.

Any Fantom-G patch can play up to eight voices at a time from as many as four stereo tones. When you're playing back or working on a full arrangement with lots of MIDI tracks playing lots of patches, you can find yourself using a lot of polyphony. If you don't hear everything you expect to hear when you play your song, check the Studio mode Voice Reserve screen to see how much polyphony you're using.



The Voice Reserve screen is the second-to-last Part View screen—display it using F2 (Group/Down).

If any of your arrangement's important sounds is losing notes due to excessively high polyphony use, you can reserve a fixed number of notes for its part by setting the VoiceRsv (“Voice Reserve”) parameter.



You can also address polyphony issues in a more fluid way by editing your patches' Patch Priority values, as explained on Page 89 of the *Fantom-G Owner's Manual*. Once you've tweaked the parameter, you'll need to save your edited patches and, if they're saved to new locations, re-select them for your song's parts.

The End

We hope you've found this workshop helpful. Keep an eye out for other Fantom-G Workshop booklets available for downloading at www.RolandUS.com.