

# Fantom-G Workstation Keyboard



## Manipulating Sounds in Realtime

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FGWS09

## 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](http://www.RolandUS.com).

## About This Booklet

Although the Fantom-G's patches and effects are pretty spectacular as they are, the ability to shape and change them as you play—in “realtime,” in other words—makes them even more expressive. This booklet explains how to take advantage of the Fantom-G's potent array of realtime controllers.

## 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.

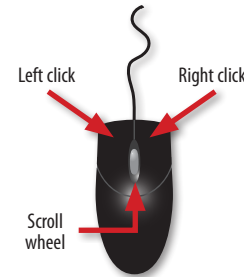


Warnings contain important information that can help you avoid possible damage to your equipment, your data, or yourself.

## Clicking or Pressing

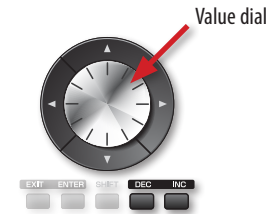
As explained in the *Power User Control Fantom-G Workshop* booklet, you can perform most operations on the Fantom-G using either a connected mouse—sold separately—or the Fantom-G's own front-panel controls.

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.

## Hot Links

Each Workshop booklet is meant to be read in order from beginning to end. However, if we mention an upcoming section—and you see this arrow—you can click the arrow to jump there immediately.



## What Is Realtime Control?

When we use the term “realtime control,” we’re referring to instantaneous changes you make to a patches and their PFX as you play. “Realtime controllers” are the physical tools you use to make those changes.

The types of realtime changes you can make are nearly infinite—you can alter pretty much any aspect of a patch or effect in realtime on the Fantom-G. This allows you to create sonic textures that are uniquely your own, truly personalizing the sounds your Fantom-G produces.

## Some Basic Ideas

### We’re Not Talking Keyboard Here So Much

The main realtime device with which you control with Fantom-G sounds is, of course, its keyboard. Though it *is* technically a controller, it’s not our concern right now.



In this booklet we’ll be talking about realtime controls designed for sliding, turning, poking, stomping, and waving your hand at (seriously), all of which allow you to manipulate your sounds in a very tactile way. The Fantom-G’s realtime-control setup is highly customizable since which controllers feel the best to you is such a personal issue.

### The Mechanics of Realtime Control

Realtime control requires two elements: a realtime controller, and the thing it controls.

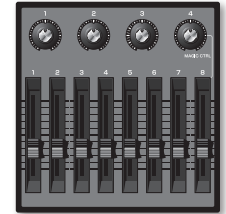
- *The realtime controllers*—As a slider, knob, etc. is moved, it can
  - produce MIDI Control Change, or “CC,” messages.
  - play sounds in the case of the D Beam.
  - cause certain other things to happen.
- *The thing being controlled*—Patch and PFX parameters can be programmed to respond to particular Control Change messages, so their values change in response to a realtime controller producing that message. There are lots of other things the realtime controllers can control, too, as we’ll see.

## The Fantom-G Realtime Controllers

Here’s an introduction to the Fantom-G’s realtime controllers. We’ll explain how to set them up a bit later.

### The Control Knobs and Control Sliders

To the left of the Fantom-G display you’ll find the realtime control knobs and sliders you can use when it makes sense to change a sound by twisting a knob or pushing something up and back.

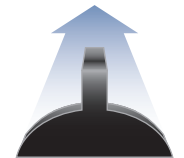


### The Pitch Bend/Modulation Lever



The Pitch Bend/Modulation lever is located to the left of the keyboard, and allows you to change a sound in two ways. When you

- *flip the lever left or right*—you bend the pitch of notes downward or upward, respectively. The further you flip the lever, the greater the amount of bending. You can set both the maximum amount of pitch bend, and also decide the type of notes that should be bent by setting the pitch-bend mode.
- *push the lever forward*—you apply modulation, which means “change,” to the sound you’re using. Typically, sounds acquire vibrato when you push the lever forward, though you can change this. When you let go, the lever returns to its original position, and modulation’s no longer applied.



The response to lever movements is programmed for each patch. See the *Editing Fantom-G Patches and Rhythm Sets Workshop* booklet to learn more. The lever can also be used for other realtime control, as we’ll see.

## The S1 and S2 Switches



These two switches, located above the Pitch Bend/Modulation Lever, are suited to switching things on and/or off.

## The D Beam

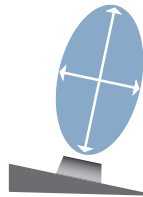


The D Beam is an infrared sensor that tracks the position of your hand as it moves above the sensor. It converts this information to control data, with which you can do three kinds of things. You can:

- *trigger a pad using the D Beam*—so that the Fantom-G acts as if you'd struck the pad. What happens depends on the current pad mode, the pad you've selected, and what the pad is set up to do.
- *use the D Beam as a mono synth*—playing notes by moving your hand over the D Beam.
- *manipulate some aspect of the current sound with the D Beam*—as it converts your gestures to MIDI Control Change values or other data.

To select the behavior you want, press the desired button to the right of the D Beam so it flashes. Press a flashing button to turn off the D Beam.

As you move your hand down closer to the D Beam sensor, its effect increases. As you move up and away, it decreases. You can see how close you are in the lower right-hand corner of the Live Play and Single Play screens, and on the Studio Play screen when realtime controllers are visible.



Viewed from the side, this is the area above the D Beam in which you can move your hand.



The green bar shows how close in your hand is.

Since the D Beam works with (infrared) light, it works best when it's not used in direct sunlight. You can adjust its sensitivity for special lighting conditions using the System Setup DBeam Sens parameter.

## Foot Controls

You can gain foot control of various things in the Fantom-G by connecting an expression pedal such as Roland's EV-5 or EV-7, a damper pedal like the Roland DP-10, DP-8, or DP-2, or a footswitch such as the FS-5U or FS-5L.

- *An expression pedal*—produces a continuous stream of Control Change messages that allow you to adjust or set parameter values as desired when the pedal's connected to the rear-panel FOOT PEDAL CTR-1 or -2 jack.
- *A damper pedal*—acts as a sustain pedal when it's connected to the rear-panel FOOT PEDAL CTR-1 or -2 jack. The DP-10, DP-8, and DP-2 are ideal for this.
- *A footswitch*—is a simple on/off control for various features and settings. When it's connected to the HOLD jack, it acts as a sustain pedal. (The DP-2 and FS-5U are momentary on/off toggle switches, while the FS-5L latches in an on or off position.)



EV-5



DP-10



FS-5U

## Keeping an Eye on Realtime Control

The Live Play and Single Play screens always show your realtime controllers and their current values in the lower area of the screen.



In Studio mode you can toggle display of realtime controllers using the F6 button to toggle between Studio Play views, one of which shows the realtime controllers.



Realtime controllers in Live mode affect any patch whose Keyboard switch is turned on.

## Setting Up Something to Control

To get a patch or its PFX to respond to realtime control the way you want, you've got to program it to respond to the Control Change messages you'll set a realtime controller to generate.



There are other things the realtime controllers can manipulate that don't involve Control Change messages. We'll discuss them, too.

## Setting Up Patch Parameters for Realtime Control

We explained the basic processes for programming sounds in the *Editing Fantom-G Patches and Rhythm Sets Workshop* booklet, so we'll focus here on the realtime control setup parameters.

- 1 Select a patch.
- 2 Pressing the PATCH button once or twice, navigate to the Patch Pro Edit screen.



The type of data that manipulates patch parameter values is called a "control source." It can be a MIDI Control Change message or a few other things, as we'll see. You can set up as many as four control sources for the realtime control of any patch. Each control source can

manipulate the values of up to four of the patch's parameters. Let's set up Control 1 for this patch to show how this works.

- 3 Use F2 (Group/Down) to select the Control 1 parameter group.



You'll begin by setting the Control 1 Source parameter to the desired value. You can select

- *OFF*—so that Control 1 is turned off.
- *a MIDI Control Change message*—to use Control Change data produced by one of the realtime controllers.
- *PITCH BEND*—to use data produced by moving the Pitch Bend/Modulation lever left and/or right.
- *AFTERTOUCH*—to use data produced by pressing down into the keyboard.
- *SYS CTRL 1-4*—to use the type of data selected as one of the four system controls. We'll explain the System Controls on Page 11.
- *VELOCITY*—to use the data produced by the force with which you play the keyboard.



There are other Control Source values you can select, but they're not realtime controllers in that they don't involve realtime interaction.



If you select *PITCH BEND*, you're using the Pitch Bend/Modulation lever as a general-use controller. To set it up in its standard pitch-bending role, have a look at the patch's Pitch parameter group.

- Since we're concerned with setting up the use of a realtime controller here, select a Control Change message—we'll select CC74 (Cutoff) for our example.

We'll set up just one patch parameter for control now, just to show you how it's done. Each parameter controlled in realtime has its own subgroup of parameters.

- Use the Control 1 Destination 1 parameter to select the parameter you want to control. We're going to select the filter cutoff (CUTOFF) for simplicity's sake.



The patch is now set up for realtime control. If you like, you can jump ahead to setting up the realtime controls, where you can program one up to generate the type of control source data you selected in Step 4.



To preserve your realtime control settings, save the patch as described in the *Saving Your Work on the Fantom-G Workshop* booklet.



If you find that—after setting up a patch and the realtime controller you want to use—the patch isn't responding to realtime control, check its Part View MIDI Rx Filter parameters to make sure that response to the type of control you're using hasn't been disabled.

## Setting Up a Patch's PFX for Realtime Control

- Select the patch or part whose PFX you want to set up, and then, in:
  - Single mode*—click F5 (PFX).
  - Live mode or Studio mode*—press the EFFECT (ROUTING) button, and then P2 (PFX).



Here we're going to be controlling the speed of the rotary-speaker effect using modulation.

For controlling PFX in realtime, the setup is much the same as it is with realtime patch control, but simpler. With PFX, you can have up to four control sources, each one of which can control the value of one of the current PFX's parameters. Each control has its own set of three parameters: Source, Destination, and Sens.

Here's something important to understand: You can use absolutely any CC message to control any patch parameter. We're using CC 74 (CUTOFF) here to control the patch's cutoff (brightness) value only to make things simple. CC 74 is typically used for the filter cutoff value, but when you're setting up realtime control in the Fantom-G, you're free to use any Control Change message for any purpose.

- The Control 1 Sens 1 parameter allows you to set how subtle or radical you want the effect of realtime control on the destination parameter to be. We'll leave it at + 10 for now.

The Sens parameter can have a plus or minus value. With plus values, the higher you push a slider or turn a knob, the greater the amount of change is applied. With negative values, the opposite occurs. This lets you increase one parameter's value while lowering another's with a single realtime controller movement.

- The four Control 1 Switch 1 values allow you to turn realtime control of individual tones within the patch on or off. We'll leave them on.

Now that we've set up all of the parameters for controlling one parameter in this patch, we'll stop. To control other parameters, repeat Steps 4-7 for them now.



- 2 Select the first control source using the 1 Control parameter. You can select
  - *OFF*—to turn off the control.
  - *a MIDI Control Change (“CC”) message*—to use Control Change data produced by one of the realtime controllers.
  - *PITCH BEND*—to use data produced by moving the Pitch Bend/Modulation lever left and/or right.
  - *AFTERTOUCH*—to use data produced by pressing down into the keyboard.
  - *SYS CTRL1-4*—to use the type of data selected as one of the four System Controls. We’ll explain the System Controls on Page 11.
- 3 Set the 1 Destination parameter to select the parameter whose value you want to manipulate using the first controller.
- 4 Set the 1 Sens (for “Sensitivity”) parameter to determine the strength of the change produced by realtime control, and whether higher values produce the greatest amount of change, or lower values do.
- 5 Set up the other three possible PFX realtime control sources if you want to.

The PFX is now ready for realtime control.



Save your settings by saving the patch to which the PFX belongs—see the *Saving Your Work on the Fantom-G Workshop* booklet.

## Setting Up the Realtime Controllers Behavior

In the following sections, we’ll explain how to configure all of the Fantom-G’s realtime controllers except the Pitch Bend/Modulation lever, whose behavior is programmed within each patch as we noted earlier.

## The Control Setting Screen

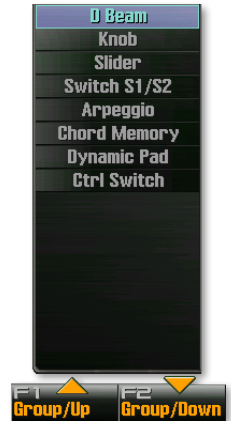
Most of the remaining realtime controllers are configured on the Control Setting screen. (The foot pedals are set up on the System screen.) To get to the screen, click F4 (Control) on the Live Play, Single Play, or Studio Play screens.

### Navigating the Control Setting Screen

Each realtime controller has its own group of parameters. To display a controller’s settings, select it on the left side of the screen using F1 (Group/Up) and F2 (Group/Down).



You can also jump at any time to the Control Setting parameters for a specific realtime controller by holding down the SHIFT button and moving the controller.



### Storing Realtime Controller Settings

The way you store your settings on the Control Setting screen depends on the mode you’re in. In

- *Single mode*—you store realtime controller settings by clicking F7 (Sys Write).
- *Live mode*—realtime controller settings are unique to each live set, so you store them when you save the live set.
- *Studio mode*—realtime controller settings are saved in each studio set, so you store them when you save the studio set.



You can learn how to save live sets and studio sets in the *Saving Your Work on the Fantom-G Workshop* booklet.

## Who Controls the Controllers?

Since every live set and studio set has its own D Beam, control knob, control slider, and S1 and S2 switch settings, each live set or studio reconfigures these controllers as it's selected. There may be times, however, when you'd prefer that the controllers behavior stays put as you select new live sets or studio sets. For this reason, each of these controller has a System parameter that lets you set how it acts when a new live set or studio set is selected.

For the:

- *D Beam*—set the D Beam Assign Source parameter on the System Pedal/DBeam tab.
- *Control knobs*—set the Knob Assign Source parameter on the System Knob/Slider tab.
- *Control sliders*—set the Slider Assign Source parameter on the System Knob/Slider tab.
- *S1 and S2 switches*—set the Switch S1/S2 Assign Source parameter on the System Switch S1/S2 tab.

In each case, the parameter can be set to:

- *TEMP*—so that the controller's behavior changes with each live set or studio set you select.
- *SYS*—so that the controller always uses the system settings that Single mode uses.

## Setting Up the Control Knobs



Each knob's Knob Assign parameter allows you to set the knob to:

- *OFF*—so the knob does nothing.
- *a MIDI Control Change number*—so that it transmits values for that Control Change message.

### Other Control Knob Uses

Each control knob can also perform one of a variety of special jobs. You can set its Knob Assign parameter to

- *AFTERTOUCH*—so that turning the knob generates the same type of aftertouch data produced by pressing into the keyboard.
- *PITCH BEND*—so that turning the knob produces pitch-bend data.
- *ARPEGGIO ACCENT*—so you can adjust the level or accents and note lengths in arpeggios using the knob.
- *ARPEGGIO SHUFFLE*—so the knob can raise or lower the amount of shuffle feel in an arpeggio.
- *ARPEGGIO OCT UP and DOWN*—so that the knob raises or lowers the pitch of an arpeggio in octave steps, respectively.
- *MASTER LEVEL*—so the knob can lower the overall level of the Fantom-G down from the volume ceiling set with the VOLUME knob.
- *DIGITAL/USB INPUT LEVEL*—so that knob can trim the level of live audio coming into the Fantom-G from its digital input or USB connection.



## Setting Up the Control Sliders



Set each control slider's Slider Assign parameter to:

- *OFF*—so the slider does nothing.
- *a MIDI Control Change number*—so that the slider transmits values for that Control Change message.

### Other Control Slider Uses

Each control slider can also perform the following other jobs. Its Slider Assign value can be set to

- *AFTERTOUCH*—so that moving the slider generates the same type of aftertouch data produced by pressing into the keyboard.
- *PITCH BEND*—so that turning the slider produces pitch-bend data.
- *ARPEGGIO ACCENT*—so you can adjust the level or accents and note lengths in arpeggios by moving the slider.
- *ARPEGGIO SHUFFLE*—so the slider can raise or lower the amount of shuffle feel in an arpeggio.
- *ARPEGGIO OCT UP*—so that the slider raises the pitch of an arpeggio in octave steps.
- *ARPEGGIO OCT DOWN*—so that the slider lowers the pitch of the arpeggio in octave steps.

## Setting Up the S1 and S2 Switches




You can choose both the type of message generated when you press the S1 or S2 button, and also each button's behavior.

Set each S button's Assign parameter to

- *OFF*—to turn the button off.
- *a MIDI Control Change number*—so that the S button transmits a single value for that Control Change message.

Set each S button's Assign Mode parameter to

- *LATCH*—so the switch acts as an on/off toggle switch.
- *MOMENTARY*—so that the switch acts as an On switch only for as long as it's held down.

 When the Assign parameter is set to a Control Change message, the On value it transmits is 127, and the Off value is 0.

## Other S1 and S2 Switch Uses

- *AFTERTOUCH*—so that pressing an S button generates a value of 127 or 0 in all three modes, according to the Assign Mode setting.
- *MONO/POLY*—so that the switch toggles the Mono/Poly switch for the currently selected part in all three modes.
- *PFX SWITCH*—so that the switch toggles the PFX for the currently selected part on and off in all three modes.
- *MFX SWITCH*—so that the switch toggles the input's MFX processor on and off in Live and Single modes.
- *MFX 1 SWITCH*—so the switch toggles MFX 1 on and off in Studio mode.
- *MFX 2 SWITCH*—so the switch toggles MFX 2 on and off in Studio mode.
- *CHORUS SWITCH*—so that the switch toggles the global chorus on and off in all three modes.
- *REVERB SWITCH*—so that the switch toggles the global reverb on and off in all three modes.
- *MASTERING SWITCH*—so that the switch toggles the mastering effect on and off in all three modes.
- *MASTER KEY UP*—so that the Fantom-G's master tuning moves up by one semitone each time the switch is pressed.
- *MASTER KEY DOWN*—so that the Fantom-G's master tuning moves down by one semitone each time the switch is pressed.
- *SCALE TUNE SWITCH*—so that the currently selected part's custom scale/tuning is toggled on and off from the S switch.

## Setting Up the D Beam

This parameter selects the job you'd like the D Beam to perform. It can be set to **OFF**, **PAD TRIGGER**, **SOLO SYNTH**, or **ASSIGNABLE**. When it's set to **OFF**, no D Beam settings are displayed. When the parameter's set to some other value, the Fantom-G presents the available options.



When the Control Setting screen's visible, you can press any of the D Beam's three buttons to jump straight to its associated parameters.

## Using the D Beam as a Pad Trigger



When you use the D Beam as a pad trigger, you swipe your hand across the D Beam sensor to “strike” the pad, and move it out of the way to stop.

Here are the D Beam's parameters when you're setting it up as a trigger for one of the Fantom-G's dynamic pads:

- *Beam Trigger Pad*—With this parameter, you select the pad you'd like to trigger from the D Beam.
- *Beam Trigger Velo*—Set how hard you'd like the D Beam to “strike” the selected pad using this parameter.
- *Beam Trigger Mode*—This sets the triggering of the D Beam to
  - *LATCH*— so the D Beam acts as an on/off toggle for the pad.
  - *MOMENTARY*—so that the pad is “struck” for only as long as you hold your hand in the D Beam.

## Using the D Beam as a Solo Synth



The D Beam can also act as a two-oscillator, monophonic—meaning “one note at a time”—programmable synthesizer. The parameters on this screen allow you to customize the synth’s sound.



This screen contains a small subset of the parameters we discussed in the *Editing Fantom-G Patches and Rhythm Sets Workshop* booklet. To learn more about what the D Beam synth parameters do, check out that booklet and the *Fantom-G Owner’s Manual*.

## Using the D Beam as an Assignable Realtime Controller



The Assignable mode allows the D Beam to generate Control Change messages for shaping a sound in realtime, and also to do a few other things.

The Assignable mode D Beam parameters are:

- **Type**—This parameter selects the type of data the D Beam produces. When it’s set to
  - **OFF**—the D Beam doesn’t do anything.
  - **a MIDI Control Change number**—the D Beam transmits values for the selected Control Change message.
  - **AFTERTOUCH**—the D beam produces aftertouch data that makes the current part’s sound respond as if you were digging down into the keyboard.
  - **BEND UP**—you can bend the pitch of the current part’s sound upward by lowering your hand down into the D Beam sensor.
  - **BEND DOWN**—you can bend the pitch of the current part’s sound downward by lowering your hand down into the D Beam sensor.
  - **ARPEGGIO ACCENT**—you can adjust the level or accents and note lengths in arpeggios using the D Beam.
  - **ARPEGGIO SHUFFLE**—the D Beam can raise or lower the amount of shuffle feel in an arpeggio.
  - **ARPEGGIO OCT UP and DOWN**—the D Beam raises or lowers the pitch of an arpeggio in octave steps, respectively.
- **Range Min and Range Max**—These parameters set how low and high, respectively, you want the D Beam to be able to set the value of whatever it’s controlling.

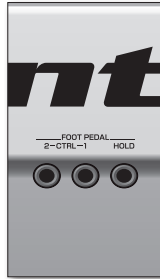
## Setting Up Foot-Pedal Control

### Setting Up a FOOT PEDAL CTR Jack Pedal or Switch

Here's how to set up a foot pedal or footswitch connected to the FOOT PEDAL CTR-1 or-2 jack.

- 1 Press the MENU button.
- 2 Click F2 (System)—if the Pedal/DBeam tab isn't already selected, click F1 (Group/Up) until it is.

You'll set up foot control using the CONTROL PEDAL parameters in the middle of the screen. Each jack—and therefore each connected pedal—has its own pair of parameters that allow you to configure the pedal's behavior.



### The Control Pedal Assign and Polarity Parameters

The Control Pedal Assign and Polarity Parameters work together.

- *The Control Pedal Assign parameter*—selects the thing you want the pedal to do.
- *The Control Pedal Polarity parameter*—set the part of the pedal that produces the maximum effect. When Polarity's set to **STANDARD**, the effect of the pedal becomes greater as you press the front of the pedal. When Polarity's set to **REVERSE**, pressing the back of the pedal produces the maximum effect.



We've provided the Polarity setting for two reasons. First, if you have a non-Roland pedal and it's producing the maximum effect when you press the back of the pedal, you can make it behave like a Roland pedal by setting Polarity to **REVERSE**. Second, there may be times when reversing the action of a pedal just feels more natural to you.

Here are what the Control Pedal Assign values get you.

- **OFF**—so the pedal does nothing.

Using an expression pedal, you might want to set Control Pedal Assign to:

- *a MIDI Control Change number*—so that it transmits values for that Control Change message.
- **AFTERTOUCH**—so that the pedal generates the same type of aftertouch data produced by pressing into the keyboard.
- **BEND UP, BEND DOWN**—so that pressing the pedal causes the pitch of the current sound to bend upwards or downwards, respectively.

Using a footswitch, you might want to set Control Pedal Assign to:

- **START/STOP**—so that you can start and stop the sequencer by foot without removing your hands from the keyboard.
- **TAP TEMPO**—to set the Fantom-G's tempo by tapping it out with your foot. This allows you to control the speed of the sequencer, rhythms, arpeggios, RPS phrases, tempo-based effects and so on.
- **PROG UP, PROG DOWN**—so you can select the next or previous sound, live set, or studio set, depending on your current mode. This can be very handy onstage when you've stored your stuff in the order in which you need it when you perform.
- **USER GROUP UP, USER GROUP DOWN**—to select the next or previous User Group item, respectively, using your pedal.
- **FAVORITE UP, FAVORITE DOWN**—so you can select the next or previous Favorite, respectively, using your foot.

- **PANEL SWITCH**—so you can use your pedal as if it's one of a variety of important front-panel buttons on the Fantom-G. When Assign is set to PANEL SWITCH, the Panel Switch Assign parameter becomes active and can be set to:
  - *OCT UP, OCT DW*—so the footswitch behaves like the +OCT or -OCT button, respectively. Typically, you'd set one footswitch to act as one of the buttons and a second footswitch to act like the other.
  - *ARP SW*—so pressing the footswitch is like pressing the ARPEGGIO button.
  - *CHD SW*—so the footswitch acts as the CHORD MEMORY button.
  - *INC, DEC*—to use the footswitch as an INC or DEC button.
  - *SHIFT*—so pressing the footswitch is like pressing the SHIFT button. This can turn two-handed operations on the Fantom-G into faster one-handed procedures.
  - *ENTER*—to press the ENTER button with the footswitch.
  - *EXIT*—to use the footswitch as an EXIT button.
  - *SKIPBACK*—so you can trigger Skip Back sampling with a footswitch.
  - *ROLL*—to use the footswitch as the DYNAMIC PADS area's ROLL button.
  - *HOLD*—to use the footswitch as the HOLD button.

## Setting Up a Hold Pedal

There are two parameters that control the behavior of a footswitch connected to the rear-panel HOLD jack. A Hold pedal is usually used for adding sustain to your notes. Here's how the Hold Pedal parameters work.

- 1 Press the MENU button.
- 2 Click F2 (System)—if the Pedal/DBeam tab isn't already selected, click F1 (Group/Up) until it is.

The Hold Pedal parameters at the bottom of the screen control the behavior of the hold pedal.

- 3 Typically, you'd set Hold Pedal Polarity to **STANDARD** when you're using a Roland pedal, and **REVERSE** to get a non-Roland pedal to behave like one.
- 4 The Continuous Hold Pedal parameter, when it's set to ON, supports half-pedaling when you've connected a DP-8 or an expression pedal to the HOLD jack. Half-pedaling allows you to control the depth of your notes' sustain.

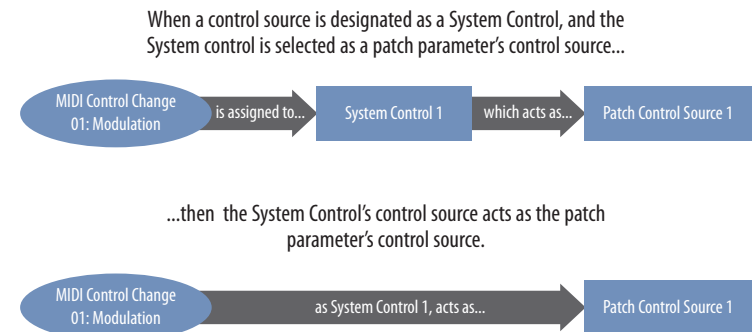
## System Control 1-4

The Fantom-G's System Controls allow you to simultaneously change the realtime control source for multiple sounds without having to go in and re-program each one individually. Here's how this time-saving tool works.

There are four System Controls, each of which has been assigned a control source. By default

- *System Control 1*—is set to CC01: Modulation (MIDI Control Change 01).
- *System Control 2*—is set to Aftertouch.
- *System Control 3*—is set to CC:02 Breath (MIDI Control Change 02).
- *System Control 4*—is set to CC04: Foot Type (MIDI Control Change 04).

A patch or PFX can be programmed to use a System Control as its control source, placing it under the control of whatever's assigned to the System Control.



If you change the control source assigned to the System Control, you therefore automatically change the control source of any sound set to use it.

All of the factory patches are set by default to use System Controls 1-4 as their four control sources. As a result, it's easy to change a control source for all of these patches at once by simply changing a System Control to whatever it is you want to use.

As you program your own patches, you can use something other than the default assignment as a System Control's control source if you prefer. Changing your mind about what you want to use in all of your patches at any time is a trivial matter, thanks to the helpful System Controls.

Here's how to assign a System Control Source:

- 1 Press the MENU button.
- 2 Click F2 (System).
- 3 Use F2 (Group/Down) to select the System Ctrl parameter group.



- 4 Set the desired System Control's System Control Source parameter to the desired value.

## The End

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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](http://www.RolandUS.com).