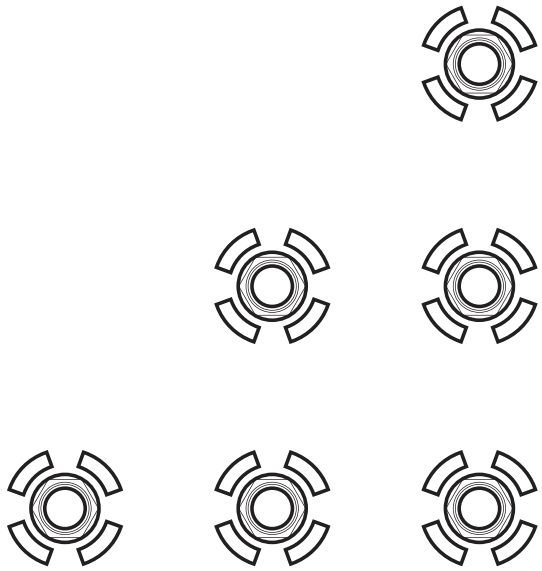
FRACTAL AUDIO SYSTEMS

FOOTSWITCH FUNCTIONS GUIDE

Complete Reference for
Footswitch Functions
on the FM9, FM3, FC-12, & FC-6



VERSION 1.3 - April 2022
For FC Original or Mark II

FM9 FM3 FC-12 FOOT CONTROLLER FC-6 FOOT CONTROLLER

TABLE OF CONTENTS

1 FOOTSWITCH FUNCTIONS

INTRODUCTION

This guide covers footswitch functions for the **Axe-Fx III** used with an **FC-6** or **FC-12** Controller (original or Mk II) as well as the **FM9** and **FM3** processors, which have onboard footswitches and can also be used with the FC-6/FC-12. All of these products are said to use "**FC**" functions.

These products share the use of **Layouts** containing **Footswitch Definitions**.
Each definition consists of one **Tap** function and one **Hold** function.

Functions are arranged in **CATEGORIES** and have their own **parameters** detailed here.

To assign functions, use the **EZ page** or the **Edit Layout/Switch** pages as directed in your product Owner's Manual. Select a Category and a Function, then set the values of any parameters for that function.

LED RING COLORS

Each footswitch **Category** has its own default color which appears automatically when assigned to the tap function of any switch. You can change the category colors using a list found in the Config menu:

CHANGE A CATEGORY COLOR:

- Open **Setup** | **FC Controllers** and page to the "**Ring Colors"** tab.
- **NAV** to the desired category and turn the **VALUE** knob to specify the desired color from the list.

You can also set the color for an individual switch:

CHANGE A SWITCH COLOR:

- Find the switch using the **EZ page** or the **Edit Layout/Switch** pages.
- Set "Switch Ring Color" to the desired value.

The LED Ring color for per-preset switches is ALWAYS determined by the settings in the preset. You cannot change Per-Preset colors through the Setup menu.

THE "UNASSIGNED" FUNCTION

To set either the Tap or the Hold function of any switch to do nothing, change the **Category** to "**Unassigned**".

BANK FUNCTIONS

Default Color: Orange

There are several FC functions for switching **Banks**. You may be familiar with preset banks A, B, and C from Fractal-Bot or our software editors, but as used with FC switching, a Bank is something very different. In this case, it is simply a subdivision of the total number of presets that is created on the fly to allow dynamic "**Preset within Bank**" switches. These can access every preset in your unit without the need to program hundreds of individual switches.

BANK SIZE

Bank Size is a global setting to determine how many presets are in each bank. This number should usually match the number of "Preset Within Bank" switches in your layouts. You can't use different bank sizes on different layouts unless you manually change the **Bank Size** setting found on the **Setup | FC Controllers | Config** page.

EXAMPLE: The tables below illustrate how a sample list of 15 factory presets would be divided with bank size set to 3 or 5. Both columns show the same list of presets, but as bank size changes they *group* differently (shown here with gray and white bands). You can set bank size to anything from 1 to 12. Remember that whenever you change **Bank Size** the *number* of banks will change, and the presets contained in each numbered bank will shift.

BANK SIZE 3

Bank 1	Preset 1	=	001: 59 Bassguy
	Preset 2	=	002: 65 Bassguy
	Preset 3	=	003: Brownface
Bank 2	Preset 1	=	004: Deluxe Verb
	Preset 2	=	005: Double Verb
	Preset 3	=	006: A-Class 15
Bank 3	Preset 1	=	007: Top Boost
	Preset 2	=	008: Prince Tone
	Preset 3	=	009: Plexi 50W
Bank 4	Preset 1	=	010: Plexi 100W
	Preset 2	=	011: Brit 800
	Preset 3	=	012: Hipower
Bank 5	Preset 1	=	013: USA Mk IV
	Preset 2	=	014: USA IIC+
	Preset 3	=	015: Recto 1

BANK SIZE 5

Bank 1	Preset 1	=	001: 59 Bassguy
	Preset 2	=	002: 65 Bassguy
	Preset 3	=	003: Brownface
	Preset 4	=	004: Deluxe Verb
	Preset 5	=	005: Double Verb
Bank 2	Preset 1	=	006: A-Class 15
	Preset 2	=	007: Top Boost
	Preset 3	=	008: Prince Tone
	Preset 4	=	009: Plexi 50W
	Preset 5	=	010: Plexi 100W
Bank 3	Preset 1	=	011: Brit 800
	Preset 2	=	012: Hipower
	Preset 3	=	013: USA Mk IV
	Preset 4	=	014: USA IIC+
	Preset 5	=	015: Recto 1

BANK: SELECT

The Bank Select function creates a footswitch that is "hard-wired" to a specific numbered bank. For example, a switch that selects Bank 1, or Bank 24.

Bank – Designates the desired Bank by its number

Preset Load – Specifies which preset (if any) should be loaded when the specified bank is selected:

- **None**: No preset from the new bank will be loaded until you select one yourself.
- **First**: The first preset in the new bank will be loaded automatically.
- **Current**: Whichever "Preset Within Bank" switch is active will remain active. For example, if you have "P2" selected within the old bank, then "P2" from the new bank will be loaded automatically when you select the new bank.

2nd Press = Previous – When turned on, allows you to switch back to the "Previous" bank.

The **LED ring** is bright when the selected bank is loaded, otherwise dim.

BANK: TOGGLE

"Toggle" functions allow you to switch back and forth between two entities.

Primary Bank and **Secondary Bank** – These set the desired Banks by their numbers.

Preset Load – Specifies which preset (if any) should be loaded when this switch is ued to select a bank:

- **None**: No preset from the new bank will be loaded until you select one yourself.
- **First**: The first preset in the new bank will be loaded automatically.
- **Current**: Whichever "Preset Within Bank" switch is active will remain active and the corresponding new preset will load. For example, if you have "P2" selected within the old bank, P2 from the new bank will be loaded automatically when you select the new bank.

The LED ring is bright when you toggle to the "Primary" bank, dim for the "Secondary", and off for "neither".

BANK: INCREMENT / DECREMENT ("INC / DEC")

"Inc / Dec" functions allow you to scroll through a series, stepping up or down.

Increment/Decrement – Designates the step size, up or down. For example, to create a switch that goes to the next bank, select +1. For a switch that goes to the previous bank, select -1.

Wrap – Determines whether the banks wrap around when you get to the either end of the list.

Lower Limit, Upper Limit – These set the lowest and highest bank that can be accessed using this switch, allowing you to restrict access to only certain banks/presets. If you're using UP and DOWN switches, you'll probably want to set the same limits for both.

Bank Switch Limits are now **globally disabled** by default. To use this feature, you must enable limits under **SETUP: FC Controllers: Config: Bank Switch Limits**

Preset Load – Specifies which preset (if any) should be loaded when the specified bank is selected:

- **None**: No preset from the new bank will be loaded until you select one yourself.
- **First**: The first preset in the new bank will be loaded automatically.
- **Current**: Whichever "Preset Within Bank" switch is active will remain active. For example, if you have "P2" selected within the old bank, P2 from the new bank will be loaded automatically when you select the new bank.

The LED ring is bright when the switch is active, otherwise dim.

MINI-DISPLAY OPTIONS FOR BANK FUNCTIONS

The following Mini-Display Label options are selectively offered for the various Bank Functions.

Both – For the toggle function, shows both numbers, with brackets around the one that is currently selected Ex: `[B000] B001` or `B000[B001]` or without brackets if neither is loaded: `B000/B001`

Number or **Destination** – Shows the bank number that will load when the switch is activated.

Current – Shows the number of the current Bank.

Custom – Shows any text you enter in the **Custom Label** field.

Action – Shows the action of the switch and the step size. Ex: `Bank +1`

PRESET FUNCTIONS

Default Color: Green

PRESET: SELECT BY NUMBER

Creates a footswitch that is “hard-wired” to load a particular preset by its number.
For example, you could create a footswitch that always selects Preset #442.

Preset – Designates the desired Preset by its number.

2nd Press = Previous – When turned on, allows you to switch back to the previous preset — whichever one was loaded prior to activating this footswitch.

The LED ring is bright when the designated preset is loaded, otherwise dim.

PRESET: SELECT IN BANK

Creates a footswitch that dynamically maps to a preset within a Bank (see p. 3). Using **Select in Bank** switches together with **Bank Up** and **Bank Down** mimics the way other Fractal Audio products provide access to hundreds of presets with minimal programming.

Preset – Designates the desired Preset by its position within the bank.
This setting cannot be higher than the global Bank Size setting (see p. 3).

2nd Press = Previous – When turned on, allows you to switch back to the previous preset — whichever one was loaded prior to activating this footswitch.

The LED ring is bright when the designated preset is loaded, otherwise dim.

PRESET: TOGGLE BY NUMBER

“Toggle” functions allow you to switch back and forth between two designated entries.

Primary Preset and **Secondary Preset** – These set the desired presets by their numbers.

The LED ring is bright when you toggle to the “Primary” preset, dim for the “Secondary” and off for “neither”.

PRESET: TOGGLE IN BANK

“Toggle” functions allow you to switch back and forth between two designated entries.

Primary Preset and **Secondary Preset** – These set the desired Presets by their postions in the bank (See Select in Bank, above).

The LED ring is bright when you toggle to the “Primary” preset, dim for the “Secondary” and off for “neither”.

PRESET: INCREMENT / DECREMENT (“INC / DEC”)

“Inc / Dec” functions allow you to scroll through a list, stepping up or down.

Increment/Decrement – Designates the step size, up or down. For example, to create a switch that goes to the next preset, select +1. For a switch that goes to the previous preset, select -1.

Wrap – Determines whether the list of presets wraps around when you get to the end.

Lower Limit, Upper Limit – These set the lowest and highest preset that can be accessed using the switch, allowing you to restrict access to only certain presets. If you’re using UP and DOWN switches, you’ll probably want to set the same limits for both.

The LED ring is bright when the switch is active, otherwise dim.

MINI-DISPLAY OPTIONS FOR PRESET FUNCTIONS

The following Mini-Display Label options are selectively offered for the various Preset Functions.

Name – Shows the name (first 10 characters) of the target preset.

Number – Shows the number of the target preset.

P# – Shows the position of the target preset within a bank (Ex: `P1` or `P2`)

Custom – Shows any text you enter in the **Custom Label** field.

Both # – For the toggle function, shows both preset numbers, with brackets around the one that is currently selected. Ex: `[P000] P001` or `P000 [P001]`or without brackets if neither is loaded: `P000/P001`

Both P# – For the toggle function, shows the positions of both presets within the bank, with brackets around the one that is currently selected (ex: `[P1] P2`, or without brackets if neither is loaded: `P1/P2`

Destination Name – For Toggle and Inc/Dec functions, shows the name (first ten characters) of the preset that will load when the switch is activated.

Current Name – For Toggle and Inc/Dec functions, shows the name (first ten characters) of the current preset.

Current # – For Toggle and Inc/Dec functions, shows the number of the current preset.

Destination # – For Toggle and Inc/Dec functions, shows the number of the preset that will load when the switch is activated.

Action – For the Increment/Decrement function, shows the action of the switch and the step size. Ex: `Preset +1`

CUSTOM MAPPING PRESETS & SCENES

All preset functions on the FC will follow the settings made under "PC Mapping" in the **SETUP: MIDI: Mapping** area of the Axe-Fx III/FM3. When PC Mapping is turned ON (see below) the first 127 preset numbers on the FC Controller will correspond to the entries of your custom map. This is true for ALL FC Preset functions, whether by number or by position within a bank.

Presets above #127 are handled as usual whether PC Mapping is on or off.

FAQ: **What is PC Mapping?**

The Axe-Fx III, FM9, and FM3 include a feature called "PC Mapping" which allows any incoming MIDI PC message to be re-mapped to a custom Preset, and optionally, any scene in that Preset. Normally, the mapping is "1:1". For example, MIDI Program Change 1 ("PC 1") normally loads Axe-Fx III or FM3 **Preset 1, with its Default Scene ("as saved")**. With PC Mapping on, however, PC 1 might load **Preset 2, Scene 3** instead (or whatever else you set up in the map).

The "PC Mapping" parameter is the "master switch" for the map. It is off by default, meaning the map is ignored. When you turn it on, incoming MIDI messages are re-mapped. Find **PC Mapping** on the "**General**" tab of **Setup** | **MIDI/Remote** on the Axe-Fx III or FM3. Find the map itself on the next tab to the right, "**Mapping**".

Combined with the "Preset in Bank" switches of the FC, this option serves as a good way to organize a set. Think of each bank as a Song and arrange the presets in the order you need them.

SCENE FUNCTIONS

Default Color: Red

SCENE: SELECT

Creates a footswitch that loads a specific Scene from whatever preset is currently loaded.
For example, a switch that selects Scene 1, or Scene 7.

Scene – Designates the desired Scene by its number.

2nd Press = Previous Scene – When turned on, allows you to tap again to toggle back to the previous scene.

The LED ring is bright when the designated Scene is loaded, otherwise dim.

SCENE: TOGGLE

"Toggle" functions allow you to switch back and forth between two designated entries.

Primary Scene and **Secondary Scene** — These set the desired Scenes by their numbers.

The LED ring is bright when you toggle to the "Primary" Scene, dim for the "Secondary" and off for "neither".

SCENE: INCREMENT / DECREMENT ("INC / DEC")

"Inc / Dec" functions allow you to scroll through a list, stepping up or down.

Increment/Decrement – Designates the step size, up or down. For example, to create a switch that goes to the next Scene, select +1. For a switch that goes to the previous Scene, select -1.

Wrap – For the Inc/Dec function, this determines whether the list wraps from Scene 8 to Scene 1, and vice versa.

Lower Limit, Upper Limit – These set the lowest and highest Scene that can be accessed using an Inc/Dec Scene switch, allowing you to restrict access to only certain Scenes. If you're using both UP and DOWN switches, you'll probably want to set the same limits for both.

The LED ring is bright when the switch is active, otherwise dim.

MINI-DISPLAY OPTIONS FOR SCENE FUNCTIONS

The following Mini-Display Label options are selectively offered for the various Scene Functions.

Name – Shows the Name (first 10 characters) of the target Scene.

Number – Shows the Number of the target Scene.

Custom – Shows any text you enter in the **Custom Label** field.

Both # – For the toggle function, shows both Scene numbers, with brackets around the one that is currently selected. Ex: `Scene[1]2` or `Scene 1[2]` or without brackets if neither is loaded: `Scene 1/2`

Destination Name – For Toggle and Inc/Dec functions, shows the name (first ten characters) of the Scene that will load when the switch is activated.

Current Name – For Toggle and Inc/Dec functions, shows the name of the current Scene.

Current # – For Toggle and Inc/Dec functions, shows the number of the current Scene.

Destination Number – For Toggle and Inc/Dec functions, shows the number of the Scene that will load when the switch is activated.

Action – For the Increment/Decrement function, shows the action of the switch and the step size. Ex: `Scene +1`

EFFECT FUNCTIONS

Default Color: Cyan

EFFECT: BYPASS

This is the classic “Instant Access Switch.”

Effect – Selects which effect you want to control.

The LED ring is bright when the effect is engaged, dim when it is bypassed, and OFF if the effect assigned to the switch is not contained in the current preset.

EFFECT: CHANNEL SELECT

This creates a footswitch that changes a specific effect block to a specific channel.

Effect – Selects which effect you want the switch to control.

Channel Select – Designates the desired Channel: A, B, C, or D (and E, F for the Multiplexer).

2nd Press – This parameter is off by default but offers two options. The “Smart Bypass” option allows Channel switches to serve double duty by engaging or bypassing an effect. To use this option, stomp again on the footswitch for a currently selected channel. This allows you to set up separate switches for different channels without the need for a separate “Bypass” Switch.

The other option for 2nd Press is “Previous Channel”. This allows toggling back to whichever channel was selected prior to using this footswitch to change it.

If 2nd Press is set to “OFF” or “Previous Channel” The LED ring is bright when the designated Channel is active, dim when it is not active, and off if the effect is bypassed or not found in the current preset.

If 2nd Press is set to “Smart Bypass” The LED ring is bright when the designated Channel is active, dim when it is not active -- OR if the effect bypassed, and OFF if the effect is not found in the current preset.

EFFECT: CHANNEL TOGGLE

“Toggle” functions allow you to switch a specific effect block between two Channels. The Effect parameter selects which effect you want the switch to control. Primary Channel and Secondary Channel set the desired Channels.

The LED ring is bright for the Primary channel, dim for the Secondary channel, and OFF if a different channel is selected, or if the effect assigned to the switch is not contained in the current preset.

EFFECT: CHANNEL INCREMENT/DECREMENT

“Inc / Dec” functions allow you to scroll through channels, stepping up or down.

Increment/Decrement – Designates the step size, whether up or down. For a switch that goes to the next channel, select +1. For a switch that goes to the previous channel, select -1.

Wrap – Determines whether the Channel wraps when you reach either end of the list.

Lower Limit, Upper Limit – These set the lowest and highest Channels that can be accessed using the switch, allowing you to restrict the range. If you’re using UP and DOWN channel switches, you’ll probably want to set the same limits for both.

The LED ring is bright when the switch is active, otherwise dim.

MINI-DISPLAY OPTIONS FOR EFFECT FUNCTIONS

The following Mini-Display Label options are selectively offered for the various Effect Functions.

Long Name – Shows a 10-character version of the specified effect name and instance number.

Short Name – Shows the 3-character abbreviation of the specified effect name plus its instance number.

Short Name +Channel – Shows the 3-character abbreviation, the instance number, and the channel.

Long Name +Channel – Shows a 10-character version of the name, the instance number, and the channel.

NOTE: This option is provided despite that fact that the long names of certain effects are too long for the instance number and/or channel to appear. For those effects (e.g. “MultiDly”) “Short Name + Channel” may be a better choice.

Both Channels – For the toggle function, shows the 3-letter effect abbreviation, the instance number, and both Channels, with brackets around the one that is currently selected.

Ex: `DRV1␣[A]B` when Channel A is active.

or `DRV1␣A[B]` when Channel B is active.

or `DRV1␣A/B` when neither A nor B is active.

Destination Channel – For Toggle and Inc/Dec functions, shows the 3-letter effect abbreviation, the instance number, and the channel that the effect will change to when you press the switch.

Current Channel – For Toggle and Inc/Dec functions, shows the 3-letter effect abbreviation, the instance number, and the channel that the effect is currently set to.

Action – For the Increment/Decrement function, shows the action of the switch and the step size. Ex: `DRV1␣+1`

Custom – Shows any text you enter in the **Custom Label** field.

UTILITY FUNCTIONS

Default Color: Blue

UTILITY: TUNER

Engages the tuner. The tuner display is shown both on the Axe-Fx III/FM3 and the FC Controller.
To disengage the tuner, activate the switch again. Changing the layout will also disengage the tuner.

The LED ring is bright while the Tuner is engaged and dim when it is off.
The Mini-Display can show the function ("Tuner") or your choice of custom label.

UTILITY: TAP TEMPO

This footswitch serves the same function as the Tempo button on the Axe-Fx III/FM9/FM3. NOTE: By default, the tempo averages across ten taps, but you can set it to use only two taps with an option found under **SETUP: Global: Config: Tap Tempo**. The Tap tempo switch is unique in that it registers timing based on the switch down, even when a Hold function is assigned to the same footswitch.

The LED ring flashes the current tempo.
The Mini-Display can show the function ("Tap Tempo"), the current BPM, or your choice of custom label.

UTILITY: AMP LEVEL & SAVE; UTILITY: SCENE LEVEL & SAVE

IMPORTANT! These functions save the ENTIRE PRESET. All unsaved changes such as altered parameters or effect bypass states will be stored when one of these functions is triggered!

Each of these two functions provides a convenient way to permanently increase or decrease the level of your preset. The advantage of doing so with your feet is that you can make the required adjustment while playing — at a rehearsal, for example, rather than needing to experiment later. **Amp Level & Save** adjusts the level of the current preset's Amp Block(s). **Scene Level & Save** adjusts the level of the Current Scene.

Target Amp Block(s) – Designates whether the Amp Level function adjusts the Amp 1 block, Amp 2, or both.

Target Output Block(s) – Specifies which Output blocks will be adjusted by the Scene Level function. (Every Output Block has eight independent "Scene Level" parameters.)

Increment/Decrement – Sets the amount of the change in dB from -2 to +2.
The LED is bright while the switch is active and dim when it is not.

The Mini-Display can show the function "Amp # +dB" (or "ScnLvl +dB") or your choice of custom label.

UTILITY: REVEAL HOLD

This function causes the Mini LCDs for all footswitches to show their **Hold** functions instead of their **Tap** functions. Remember that you can also see the Hold function for any switch by pressing it, but this shows Hold functions for the entire FC controller at once.

Mode – Reveal Hold can be either momentary or latching. The Latching mode stays active when you engage it, allowing you to execute any one of the displayed hold functions with a single tap. When you do this, the Reveal Hold function automatically turns itself off.

Sticky Function - When enabled, this causes Latching Mode (above) to stay active until you manually turn it off by stepping on the Reveal Hold switch again.

The LED ring is bright while the switch is active and dim when it is not.
The Mini-Display can show the function ("Hold Funcs") or your choice of custom label.

LAYOUT FUNCTIONS

Default Color: Yellow

LAYOUT: SELECT

Creates a footswitch that is “hard-wired” to a specific Layout.
For example, a switch that selects Layout 2, or Layout 7.

Layout – This designates the desired Layout by its number.

View – This sets the View that the layout will open to. See p. 18 or your Owner’s Manual for more on Views.

The LED ring is bright if the designated Layout is currently loaded, otherwise dim.

The Mini-Display can show the **Layout Name** (Ex: `PRESET`), its **Number** (Ex: `Layout 1`), or your custom text.

LAYOUT: MASTER LAYOUT

Displays the Master Layout menu.

The Mini-Display can show the function (“`MLM`”) or your choice of custom text.

On the FC-6 or FM3: If the Master Layout Menu is currently displayed, executing this function again will change it to the next VIEW. This allows one switch to show the MLM and step through views.

FAQ: Why not just use the "Master Layout Switch Combo"?
FC Controllers offer a special footswitch combination to show the **Master Layout Menu.** (See the FC Owner’s Manual). Why, then, would you ever want a single footswitch to perform this same function? The answer lies in an advanced option which allows you to *DISABLE* the “MLM Switch Combination”. There are several possible reasons:

1) To avoid accidentally entering the Master Layout Menu with imprecise stomping.
2) To guarantee that the lower right footswitch fires its Tap function on the down- instead of the up-stroke.
3) You may have designed a system which never uses the Master Layout Menu.

If you’re in any of the above groups, but still want access to the Master Layout Menu, a dedicated switch may be the answer you need. Simply assign the “Layout: Master Layout” function described above.

Or, if you disable the Master Layout Menu, this also leaves it free as “Layout 9” free to put to other uses.

Find the option to disable the on the **Config** page of the **FC Controllers** menu.

LAYOUT: INCREMENT / DECREMENT (“INC / DEC”)

“Inc / Dec” functions allow you to step to the next or previous layout.

Increment/Decrement – Designates the step size, up or down. For example, to create a switch that goes to the next Layout, select +1. For a switch that goes to the previous Layout, select -1.

Wrap – For the Inc/Dec function, determines whether the list wraps from Scene 8 to Scene 1, and vice versa.

Lower Limit, Upper Limit – These set the lowest and highest Layout that can be accessed using an Inc/Dec Scene switch, allowing you to restrict access to only certain Layouts. If you’re using both UP and DOWN switches, you’ll probably want to set the same limits for both.

The LED ring is bright when the switch is active, otherwise dim.

CONTROL SWITCH FUNCTIONS

Default Color: Purple

Control Switches allow the footswitches of the FC controller to interact directly with the **Modifier** system of the Axe-Fx III/FM3, operating in much the same way as external expression pedals, switches, or MIDI. They work as modifier **sources** to control effect parameters. For example, a Control Switch could operate the "Hold" switch on a Delay or Reverb, or change the speed of an LFO. Any parameter that allows a modifier can have its source set to a Control Switch. For more on using Modifiers, see your **Owner's Manual**.

There are six Control Switches in total.

A Control Switch can be either "Latching" or "Momentary", depending on which of two functions you use. Latching switches can be toggled with your foot, or have their state "forced" to on or off by a Scene.

Control Switches can also optionally transmit a MIDI "Payload" when they are turned on and/or off.

CONTROL SWITCH: MOMENTARY

Momentary switches are active only while you hold the switch down.

Control Switch – This parameter determines which one of the six available Control Switch modifier sources a switch will connect to.

IMPORTANT: **Control Switch Momentary** is an "odd-ball" in that it inherently requires you to press and hold the switch. It must be assigned as a **Tap** function, however, *with NO Hold function on the same switch.*

SPECIAL NOTE: On an FC-6 or FC-12, the "MLM Switch Combination" relies on an *invisible* Hold function on the lower right switch. A Momentary Control Switch assigned to the to the Tap function of the lower right switch will therefore not work unless the MLM is disabled in SETUP.

The LED ring is bright while the switch is active and dim when it is not.

The Mini-Display can show the function ("CS1, CS2, etc") or your choice of custom label.

CONTROL SWITCH: LATCHING

Latching switches toggle from on to off (or off to on) whenever you activate them.

Control Switch – This parameter determines which one of the six available Control Switch modifier sources a switch will connect to.

The LED ring is bright while the switch is active and dim when it is not.

The Mini-Display can show the function ("CS1, CS2, etc") or your choice of custom label.

ADDITIONAL CONTROL SWITCH FEATURES

In addition to their primary function as modifier sources, Control Switches also offer the following features.

USING SCENES TO TURN CONTROL SWITCHES ON OR OFF

A physical switch is either open or closed, period. In comparison, a programmable switch as used in a traditional MIDI controller has a “virtual state”, meaning its ON or OFF state can be *stored in memory* so it can toggle as desired when you navigate from one preset to another.

Control Switches provide the best of both worlds. In their default state, they behave as physical switches, retaining their current or “Last” state as you switch presets or scenes. They are also programmable, however, and any Scene can set any Control switch ON or OFF. Here’s how:

1. Load the desired **Preset** and **Scene**.
2. Press **HOME**, then use Push-knob **D** to open the **FC Per-Preset** menu.
3. Page to the **CS Per Scene** tab if it isn’t already selected.
4. Use the **NAV** keys to select the row and column for to the Scene and Control Switch you want to change.
5. Turn the **VALUE** knob to select “ON” or “OFF”.
   The default value of “LAST” causes any Control Switch to retain its state as you change scenes.
6. Make any desired changes, then **STORE** the preset in the usual way.

CONTROL SWITCH MIDI

Control Switches have an integrated MIDI feature which allows each Control Switch to send its own global MIDI message payload when the switch is turned ON or OFF. See p. 14.

LINK CONTROL SWITCHES IN A MUTUALLY EXCLUSIVE GROUP

The FC allows you to set up a global group of mutually exclusive Control Switches. Only one switch in this group can be ON at a given time. All instances of a switch across any number of layouts abide by this setting. Any of the six Control Switches can be linked in the group as follows:

- On the Axe-Fx III/FM3, open **Setup** | **FC Controllers** and page to the “**Config”** tab.
- **NAV** to the **CONTROL SWITCH LINK** section and set Exclusive to “YES” for the desired switches.

Remember, like the Control Switch MIDI feature, the exclusive group setting is Global, for all instances of a given switch on any layout.

CONTROL SWITCH MIDI

An Axe-Fx III with an FC Controller, or an FM9 or FM3 with or without an FC Controller can transmit MIDI messages in a number of ways. See the FC Owner's Manual or FM9/FM3 Owner's Manuals for more on this subject.

For convenience, the following section on Control Switch MIDI is repeated here.

As covered on the previous pages, the **Control Switch** function allows a footswitch to operate as a **Modifier** source to control sound parameters. In addition, however, each of the six Control Switches has the capability to transmit a custom "payload" of MIDI data every time the switch is turned on ON or OFF. This transmission is not tied to another event such as a Preset or Scene change, so Control Switch MIDI more flexible and dynamic.

When you recall that Control Switches can be momentary or latching (and even mutually exclusive), the depth of the CS MIDI system is multiplied. You might change channels on a connected MIDI-controlled amp, or even manually operate a remote processor, sequencer, or lighting system.

Here is a summary of the MIDI Capabilities of a Control Switch:

- Control Switches are placed into an FC Layouts as functions.
- Control Switches 1–6 appear in the list of **Modifier** sources on the Axe-Fx III/FM9/FM3.
- The role of a switch as a modifier source is not compromised if you also use it to transmit MIDI. The same switch can simultaneously control the Axe-Fx III/FM9/FM3 and a connected device. (See your **Owner's Manual** for more on using Modifiers.)
- Each Control Switch has its own global **MIDI Payload** containing up to four Program Change ("PC") or Control Change ("CC) messages on any MIDI Channels, with custom values from 0–127, or disabled ("--") for both the ON and OFF states of the switch.
- Each MIDI Payload also has a "master switch" allowing it to be enabled or disabled.

SETTING UP THE MIDI PAYLOAD FOR A CONTROL SWITCH:

1. On the Axe-Fx III/FM9/FM3, open the **SETUP | FC Controllers** menu and page to the "**CS MIDI"** tab.
2. Select the desired Control Switch at the top of the menu. (CS1, CS2, etc.)
3. Use **NAV** buttons and the **VALUE** wheel to get around the page.
4. Set **Enabled** to "YES"for the switch to send MIDI.
5. **NAV** through the table and create your desired Payload of up to four commands, with values for ON and OFF
6. Press EXIT when finished. There is no need to SAVE while working in the Setup Menu.

Axe-Edit/FM3-Edit also provide tools for editing Control Switch MIDI.

LOOPER FUNCTIONS

Default Color: Per Switch

Looper functions are used to operate the Looper block, which must be present in your preset for these switches to do anything. Looper footswitches work exactly like the front panel controls for the Looper, with all of the same interactive features.

See the **Fractal Audio Blocks Guide** for more on the Looper Block.

https://www.fractalaudiosystem.com/fas-bg

Looper functions have no configurable parameters in the FC. Their Mini-Display and Ring Colors are automatic, though as with other switches, you can use a Custom Mini-Display Label and change the default Color.

Record (Red) Activates the Record Function. Remember that you can configure what happens when you press the active Record switch a second time. Find “Record 2nd Press” on the Config page of the edit menu of the Looper block. When available, Overdub will also appear on the Record footswitch. When in overdub, the switch LED ring changes to Yellow[1].

Play/Stop (Green)

Once (Blue)

Reverse (Orange)

Undo/Erase (Purple)

Half Speed (Pink)

Remember that you can also use the **Effect: Bypass** function (see p. 8) to add a switch to Bypass or Engage the Looper block itself.

1 Unless you’ve changed the default color for the switch, in which case Record and Overdub both use the same color.

For the tightest timing, use Looper controls as the Tap function of a switch with no Hold function.

PER-PRESET FUNCTIONS

Default Color: Special

FC layouts are global. That is, their functions remain the same as you change presets. The **Per-Preset Switch** system adds two ways to make layouts more flexible. In fact, every preset contains 24 numbered "**FC Switch Definitions**". There are two ways to put these to use.

In Method 1 (below) the preset **overrides** any switch on any layout, substituting the Per-Preset switch definition of your choice in the location of your choice.

> *"I want THIS switch on THIS layout to do something different when THIS preset loads."*

In Method 2 (next page), the layout contains a permanent "**placeholder**" which always loads a specific FC Switch Definition (by its number) in a fixed position.

> *"I want THIS switch on THIS layout to ALWAYS use "Per-Preset X" from the currently loaded preset."*

PER-PRESET METHOD 1: OVERRIDES

This method creates a classic "exception" — very useful for "that one song" which needs to do something unusual, like providing access to the Looper instead of a particular effect, or switching to a Scene you don't normally use.

To set up an override, edit the **Preset** to force the substitution. Here's how:

1. Load the desired preset.
2. Press **HOME**, then use Push-knob **D** to open the **FC PER-PRESET** menu.
3. Change to **Per-Preset FC** page.
4. Turn the **VALUE** knob to select your choice of per-preset switch definitions (numbered "PP# 1-24").
5. Define the switch. The interface is basically identical to the "EZ" page. You can set Tap Function, Hold Function, LED ring color, Mini-Display settings, and Layout Links. Repeat this process for any other switches you wish to define.

Once you have defined one or more Per Preset Switch Definitions, you must set up the override(s):

6. Change from the **Per-Preset FC** page to the **Overrides** page by pressing the **PAGE >** button. You will see a long list showing every switch in every FC layout.
7. On the **Overrides** page, use knob **A** or the **NAV** buttons to scroll to the layout and switch you want to override, then turn knob **C** or the **VALUE** knob to select the desired Per-Preset switch by its number ("**PP#**").
8. Repeat this process for any other overrides you wish to create

IMPORTANT: You must **STORE** the preset after setting up FC Switch definitions and overrides!

Note: Most Factory presets are not programmed with any overrides.

When any footswitch in any layout is being overridden by a Per-Preset switch, a message is displayed at the bottom of the EZ page to indicate this. When this occurs, push-knob **E** becomes a shortcut button to jump to the **Per-Preset FC** page.

DISABLING OVERRIDES

You can globally *disable* per-preset switch overrides. This can be useful when you want to prevent downloaded presets from "clobbering" your layouts, or when you've changed your mind and suddenly want all layouts to be global and consistent. Find this option on the **Setup | FC Controllers | Config** page. See your **Owner's Manual** for more.

PER-PRESET METHOD 2: THE PLACEHOLDER FUNCTION

The second way of working with Per-Preset switches does not rely on overrides (see previous page).

Instead, this method uses the “Per-Preset: Placeholder” function. You may assign this function Tap and/or Hold for any switch just like any other function.

It is important to remember that both Overrides and Placeholders use the same list of 24 Per-Preset FC switch definitions. To create a switch definition, simply follow Steps 1 through 5 on the previous page, being sure to **STORE** the preset when you finish. Any placeholder function with a matching **Per-Preset Switch #** will do whatever your preset tells it to.

PER-PRESET: PLACEHOLDER

This function creates a placeholder for one of the **Per-Preset FC** switch definitions contained in all presets. When any preset is loaded, the corresponding values from that preset will be used to determine the functions, appearance, and behavior of the Tap and/or Hold functions of this switch.

This function has only a single parameter, **Per-Preset Switch**, which selects the number of the Per-Preset FC Switch definition you want to place on your layout.

If you want both Tap and Hold functions to appear, you must assign the placeholder function to BOTH Tap and Hold. (This is actually a feature and not a limitation!)

As you place the **Per-Preset: Placeholder** function in your layouts, the **Switch Ring Color** parameter for the Per-Preset function itself *will not work* to change the color. Instead, you must set the color footswitch definition stored in the preset itself found under **Controllers: Per-Preset FC Settings : Per-Preset FC.**

On the FC-6 and FC-12, Factory Default Layout 6 uses the per-preset placeholder functions for both Tap and hold.

On the FM3, only the Tap functions have been assigned.

Use these layout as a way to check the per-preset functions in presets you download, or try creating Per-Preset FC switch definitions yourself in a few presets.

VIEW FUNCTIONS

Default Color: Teal

Views allow the FC-6 or FM3 to take advantage of all twelve switch definitions in any layout. See your Owner's Manual for more information.

VIEW: SELECT

Creates a footswitch that is "hard-wired" to a specific View.
For example, a switch that selects View 1, or View 2 on the current controller.

View — This designates the desired View by its number.

The LED ring is bright if the designated View is currently loaded, otherwise dim.

The Mini-Display can show the **View Number** (Ex: `View 1`) or your choice of custom text.

VIEW: INCREMENT / DECREMENT ("INC / DEC")

"Inc / Dec" functions allow you to scroll through a list, stepping up or down.

Increment/Decrement – Designates the step size, up or down. For example, to create a switch that goes to the next Scene, select +1. For a switch that goes to the previous Scene, select -1.

Wrap – For the Inc/Dec function, determines whether the list wraps from Scene 8 to Scene 1, and vice versa.

Lower Limit, Upper Limit – These set the lowest and highest Scene that can be accessed using an Inc/Dec Scene switch, allowing you to restrict access to only certain Scenes. If you're using both UP and DOWN switches, you'll probably want to set the same limits for both.

The LED ring is bright when the switch is active, otherwise dim.

The Mini-Display can show the **Action** (Ex: `View +1`), the Destination (Ex: "`View 3`") or your own custom text.

VIEWS: FM3 VS. FC-6

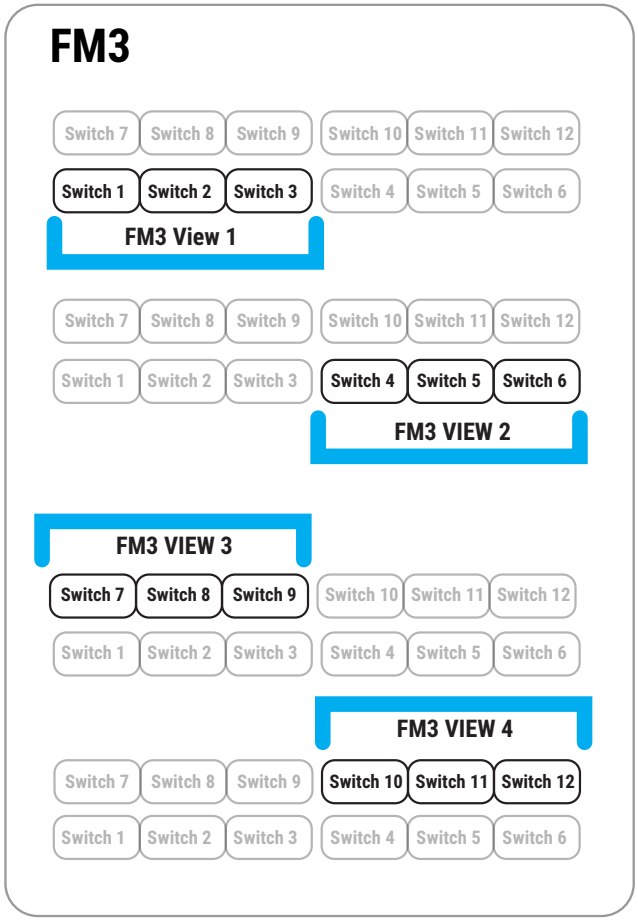
On an FC-12 controller, all 12 switch definitions of any layout are shown one-to-one across the 12 footswitches. On an FC-6 controller, only the first six can normally be shown. On the FM3, only the first three.

The FM3 can show three switches at once. The FC-6 can show six.

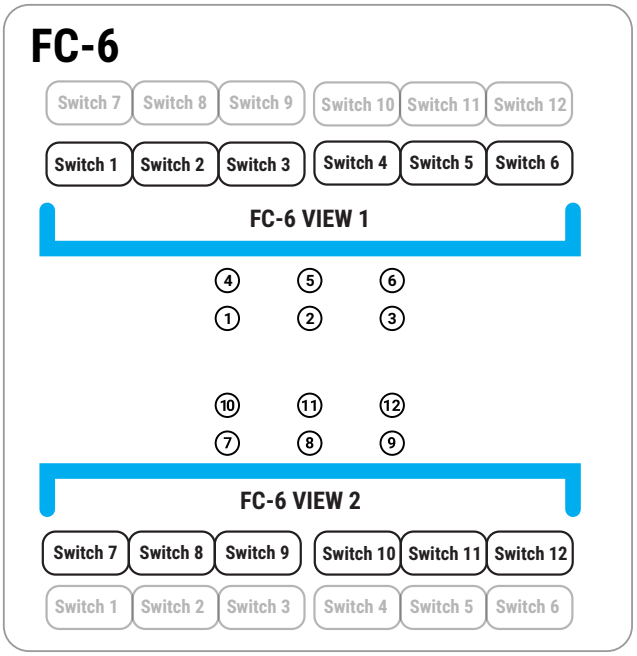
If you imagine the twelve switch definitions of any layout in two rows of six as they would appear on the FC-12, all that's left is to understand which view is which.

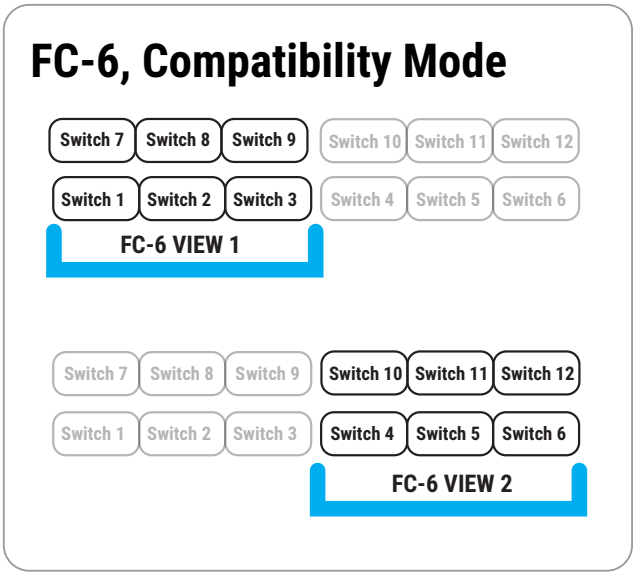
The FC-6 can work in two different ways, depending on whether FC-6/FC-12 Compatibility Mode is turned ON. Find this parameter on the **Config** page of the **FC Controllers Menu** under **SETUP**.

FM3 View Mapping



FC-6 Mapping





SETLIST FUNCTIONS

Default Color: Orange

SETLIST: SELECT

Creates a footswitch that changes the "Active" Setlist. For example, a switch that selects Setlist 1, or Setlist 4. The Active Setlist is used to determine which Songs are loaded by Song footswitches (p. xx).

Setlist – Designates the desired Setlist by its number.

The LED ring is bright when the designated Setlist is Active, otherwise dim.

SETLIST: TOGGLE

"Toggle" functions allow you to switch the "Active" status between two designated Setlists.

Primary Setlist and **Secondary Setlist** — These designate the desired Setlists by their numbers.

The LED ring is bright when you toggle to the "Primary" Setlist, dim for the "Secondary" and off for "neither".

SETLIST: INCREMENT / DECREMENT ("INC / DEC")

"Inc / Dec" functions allow you to scroll through a list, stepping up or down. A single "Setlist +1" footswitch can be used to access all four setlists in order. (Set the Mini-Display to "Current Name".)

Increment/Decrement – Designates the step size, up or down. For example, to create a switch that activates to the next Setlist, select +1. For a switch that activates to the previous Setlist, select -1.

Wrap – This determines whether the list wraps from the end to the beginning of the list, or vice versa.

Lower Limit, Upper Limit – These set the lowest and highest Setlist that can be activated using the Inc/Dec Scene switch, allowing you to restrict access to only certain Setlists. If you're using both UP and DOWN switches, you'll probably want to set the same limits for both.

The LED ring is bright when the switch is active, otherwise dim.

MINI-DISPLAY OPTIONS FOR SETLIST FUNCTIONS

The following Mini-Display Label options are selectively offered for the various Scene Functions.

Name – Shows the Name of the Setlist.

Number – Shows the Number of the Setlist.

Custom – Shows any text you enter in the **Custom Label** field.

Both # – For the toggle function, shows both Setlist numbers, with brackets around the one that is currently selected. Ex: `Set[1]2` or `Set 1[2]` or without brackets if neither is loaded: `Set 1/2`

Destination Name – For Toggle and Inc/Dec functions, shows the name of the Setlist that will load when the switch is activated.

Current Name – For Toggle and Inc/Dec functions, shows the name of the current Setlist.

Current # – For Toggle and Inc/Dec functions, shows the number of the current Setlist.

Destination Number – For Toggle and Inc/Dec functions, shows the number of the Setlist that will load when the switch is activated.

Action – For the Increment/Decrement function, shows the action of the switch and the step size. Ex: `Set +1`

SONG FUNCTIONS

Default Color: Green

SONG: SELECT IN SET

Creates a footswitch that loads a Song by its numbered position within the current Active Setlist. For example, Song #1 or Song #12.

Song – Designates the desired Song by its position within the Setlist.

The LED ring is bright when the designated Song is loaded, dim if if can be loaded, and off if the target Song is empty. (Empty songs cannot be loaded.)

SONG: TOGGLE IN SET

"Toggle" functions allow you to switch back and forth between two designated entries.

Primary Song and **Secondary Song** – These designate the desired Songs by their numbered postions in the Setlist (See **Select In Set**, above).

The LED ring is bright when you toggle to the "Primary" Song, dim for the "Secondary" and off for "neither".

SONG: INCREMENT / DECREMENT ("INC / DEC")

"Inc / Dec" functions allow you to scroll through a list, stepping up or down.

Increment/Decrement – Designates the step size, up or down. For example, to create a switch that goes to the next Song, select +1. For a switch that goes to the previous Song, select -1.

Wrap – Determines whether the list of Songs wraps around when you get to the end. Note that empty songs are skipped in this list, whether they fall at the start, in the middle, or at the end.

Lower Limit, Upper Limit – These set the lowest and highest Song that can be accessed using the switch, allowing you to restrict access to only certain Songs. If you're using UP and DOWN switches, you'll probably want to set the same limits for both.

The LED ring is bright when the switch is active, otherwise dim.

MINI-DISPLAY OPTIONS FOR SONG FUNCTIONS

The following Mini-Display Label options are selectively offered for the various Song Functions.

Name – Shows the name of the target Song.

Number – Shows the number of the target Song.

P# – Shows the position of the target Song within a bank (Ex: `P1` or `P2`)

Custom – Shows any text you enter in the **Custom Label** field.

Both # – For the toggle function, shows the positions of both Songs within the Set, with brackets around the one that is currently selected (ex: `[S01] S02`, or without brackets if neither is loaded: `S01/S02`

Destination Name – For Toggle and Inc/Dec functions, shows the name of the Song that will load.

Destination # – For Toggle and Inc/Dec functions, shows the number of the Song that will load.

Current Name – For Toggle and Inc/Dec functions, shows the name of the current Song.

Current # – For Toggle and Inc/Dec functions, shows the number of the current Song.

Action – For the Inc/Dec function, shows the action of the switch and the step size. Ex: `Song +1`

SONG SECTION FUNCTIONS

Default Color: Red

SONG SECTION: SELECT

Creates a footswitch that loads a specific Section from the currently loaded Song.
For example, a switch that selects Section 1, or Section 6.

Section – Designates the desired Section by its number.

The LED ring is bright when the designated Section is loaded, dim if it can be loaded, and off if the section is empty. (Empty Sections cannot be loaded.)

SONG SECTION: TOGGLE

"Toggle" functions allow you to switch back and forth between two designated entries.

Primary Section and **Secondary Section** — These set the desired Sections by their numbers.

The LED ring is bright when you toggle to the "Primary" Section, dim for the "Secondary" and off for "neither".

SONG SECTION: INCREMENT / DECREMENT ("INC / DEC")

"Inc / Dec" functions allow you to step up or down through the Sections of the current song.

Increment/Decrement – Designates the step size, up or down. For example, to create a switch that goes to the next Section, select +1. For a switch that goes to the previous Section, select -1.

Wrap – For the Inc/Dec function, this determines whether the list wraps from Section 6 to Section 1, and vice versa.

Lower Limit, Upper Limit – These set the lowest and highest Section that can be accessed using an Inc/Dec Section switch, allowing you to restrict access to only certain Sections. If you're using both UP and DOWN switches, you'll probably want to set the same limits for both.

The LED ring is bright while the switch is active, otherwise dim.

MINI-DISPLAY OPTIONS FOR SECTION FUNCTIONS

The following Mini-Display Label options are selectively offered for the various Section Functions.

Name – Shows the Name (first 10 characters) of the target Section.

Number – Shows the Number of the target Section.

Custom – Shows any text you enter in the **Custom Label** field.

Destination Name – For Toggle and Inc/Dec functions, shows the name (first ten characters) of the Scene that will load when the switch is activated.

Both # – For the toggle function, shows both Section numbers, with brackets around the one that is currently selected. Ex: `Sect [1]2` or `Sect 1[2]` or without brackets if neither is loaded: `Sect 1/2`

Current Name – For Toggle and Inc/Dec functions, shows the name of the current Section.

Current # – For Toggle and Inc/Dec functions, shows the number of the current Section.

Destination # – For Toggle and Inc/Dec functions, shows the number of the Section that will load when the switch is activated.

Action – For the Increment/Decrement function, shows the action of the switch and the step size. Ex: `Sect +1`

LAYOUT LINKS

"Layout Link" is not a category or function like "**Preset: Select**" or "**Looper: Record**". Instead, this feature is built in to **every other function**, adding several parameters to every other footswitch function on the FC.

With Layout Links, any Tap or Hold function can serve double-duty, also changing the layout on one or more of the **other** FC Controllers in your rig. Use one FC=6 to switch another. Use an FM3 to switch an FC-12. It's all up to you how you use this powerful feature.

Setting up a Layout Link is simple, but it does not appear on the **EZ** page. To use this feature, you must navigate to the desired footswitch under **Setup**: **FC Controllers: Layouts** (or use the Editor software).

To create a Layout Link, simply designate the layout(s) you want to load on the desired FC unit(s). Layout Links fire *after* the primary function they are assigned to, but their timing isn't based on a delay. Instead, the Layout Link always activates when the switch for its associated function is released.

Don't confuse Layout Link with the **LAYOUT: SELECT** function, which in comparison is a simple way for a footswitch to change the layout on the *current* unit. Layout Link is more far-reaching; it can automatically trigger layout sequences, or control multiple units at once without tap dancing.

Layout Links can also change the **View** on the target controller.

On the Axe-Fx III, every Tap or Hold function offers **four** Layout Link parameters. Why four? Because this is the maximum number of FC units in a daisy chain configuration. On the FM9 or FM3, the total is reduced to **three** -- one for the onboard switches and one for each of up to two connected FCs.

LAYOUT LINKS EXAMPLE 1

In this example, we'll envision a set of two custom layouts. Let's call them **Layout 1:Presets** and **Layout 2: Scenes**.

Imagine that Layout 1 contains Bank: Up, Bank: Down, and several Preset switches (just like factory default Layout 1). If we add Layout Links on these preset switches, then activating one will do two things: select a preset and then change the Layout. Now, whenever we select a preset, the Scenes Layout can come up automatically!

How would you get back to layout 1? There are many ways, but one that comes to mind would be to add a "Layout 1" switch right in Layout 2. This could even be a press and hold function if "real estate" is scarce.

LAYOUT LINKS EXAMPLE 2

In this example, we'll envision one controller used exclusively for changing the layout on another controller.

Imagine an FM3 or FC-6 that powers up with a custom layout that does nothing but change the layout on a different FC-6 or FC-12. Let's begin with a look at this hypothetical "**Layout 1: Command Center.**" Each of the switches does nothing except execute layout links. To make it work, we set the tap functions of these switches so they actually load the very layout they are contained in. In other words, the tap function of every switch in Layout 1 is set to select Layout 1. Huh? Yes, this "trick" is required because the "Unassigned" function does not allow us to change the color or mini-LCD label, which we WANT to do. We set switch 1 as "PRESETS" (Green), switch 2 as "SCENES" (Red), etc.

The layout links on these switches change the OTHER controller. If we used an FM3 and FC-12, that would be 36 different switch offerings. With an FC-6 and FC-12 we'd have Seventy-two. Can you imagine the possibilities of combining this example with the previous one? Here we have just one small glimpse at the flexibility and ease-of-use that the FC Layout System can provide.

GETTING HELP

Our forum is a source of great help ranging from product Q&A to tutorials and more. Fractal Audio staff participate in the conversations, and response times can be very fast.

Find it at https://forum.fractalaudio.com

A wiki maintained by members of the Fractal Audio community, is also an excellent resource:

https://wiki.fractalaudio.com

You can get support directly from Fractal Audio Systems at: https://support.fractalaudio.com
or internationally via our dealers listed at https://www.fractalaudio.com/international-ordering