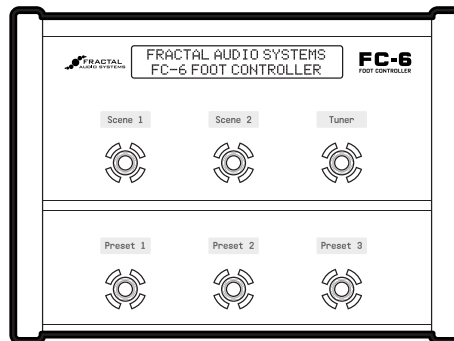
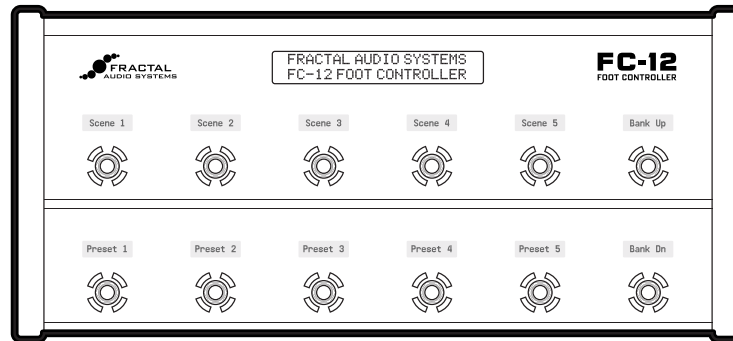




# FC-12 + FC-6 FOOT CONTROLLERS



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# OWNER'S MANUAL

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# Declaration of Conformity

Manufacturer's Name: **Fractal Audio Systems, LLC**  
Manufacturer's Address: **4 Wilder Drive, Plaistow, NH 03865 USA**

**Declares that the product:**  
Product name: **FC Controller**  
Product option: **FC-6, FC-12**

## **Conforms to the following Product Specifications:**

**Safety:** EN60065:2014  
**EMC:** EN55013:2013  
EN55020:2007+A11:2011  
EN55024:2010  
EN61000-3-2:2014  
EN61000-3-3:2013

## **Supplementary Information:**

The product herewith complies with the requirements of the Low Voltage Directive 2006/95/EC and the EMC Directive 2004/108/EC.

**Clifford Chase, President / CEO**  
**December 21, 2018**

# EMC/EMI

This equipment has been tested and found to comply with the limits for a Class B Digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ▶ Reorient or relocate the receiving antenna.
- ▶ Increase the separation between the equipment and receiver.
- ▶ Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- ▶ Consult the dealer or an experienced radio/TV technician for help.

# Legal Notices

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## Important Safety Instructions



**WARNING:** To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.



**CAUTION:** To reduce the risk of fire or electric shock, do not remove screws. There are no user serviceable parts inside. Refer servicing to qualified service personnel.

1. Obey any warnings on the FC chassis and in this User Guide.
2. Keep away from sources of heat such as ducts, registers or appliances that produce heat.
3. Connect only to FASLINK II connector or to an AC Adapter rated at 9V DC 1000ma.
4. Keep all cables in good condition. Do not kink, bend, or pinch.
5. If not using your FC for extended periods of time, disconnect from power.
6. Protect the unit from rain and excessive moisture.
7. Refer servicing to qualified personnel only.
8. Stop operation of the unit and obtain service if:
  - Liquids or excessive moisture enter the unit.
  - The unit operates incorrectly or performance is inconsistent or erratic.
  - The unit has been dropped and/or the enclosure damaged.
9. Prolonged exposure to high volume levels can cause hearing damage and/or loss. The use of hearing protection in high volume situations is recommended.

## A Manual for Online and Print Use

This manual is intended for use in desktop, tablet, and smart phone readers. It includes clickable links and bookmarks to make navigation and cross-reference easy. We recommend against printing, because firmware updates tend to make older manual versions fall out of date. That said, considerations have been taken for those who prefer paper. You are granted permission to print this PDF for personal use only. A copy center or online printer can print and bind a book for you from the PDF file. Those using screen readers must forgive the changes made herein to accommodate the print version: all links also include a page or section numbers, page spreads have extra margins towards the binding edge, and blank pages have been included to preserve page and chapter flow.

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# 1 INTRODUCTION

## WELCOME TO THE FC

The new FC-6 and FC-12 Foot Controllers for the Axe-Fx III are the perfect way to control your performances with the world's most powerful guitar processor. Our latest-generation controllers offer an impressive suite of features and capabilities, incorporating years of innovation and customer feedback. They look great too, making an attractive addition to your home, studio or stage.

The FC-12 and FC-6 are easy to use while still granting extreme flexibility. For those who want simplicity, the units are virtually plug-and-play. Use the "Master Layout Menu" to select from "Layouts." Layouts are like pages of footswitches arranged in familiar and intuitive ways, and they make the FC seem like multiple foot controllers in one. In each layout, every footswitch can have separate "Tap" and "Hold" functions. LED rings change color to show switch category and status (on/off/dim). At the same time, "smart" mini-LCDs eliminate guesswork (and the need for tape or magnets) with an automatic label for each switch.

For simple changes, use "EZ Mode" to set up or modify footswitches in seconds. Just tap the switch and set a few simple Axe-Fx III parameters to select from the many different ways to control presets, banks, scenes, effects, channels, tuner, tap tempo, looper controls, control switches, and more. Such simplicity does not come at the cost of flexibility. Creative users can set up custom control with ease. You can modify layouts with any arrangement of Tap and Hold functions, change colors, customize mini-display text, and more. You can even override the functions of individual footswitches on a per-preset basis!

For the pro player with a "tech" supporting them off stage, "Mirroring" capability allows on-stage and off-stage FC units to follow each other completely without dual programming. This is better than vintage "master-slave" technology in that both units are effectively the master: any change on either unit is reflected on both.

One standard XLR cable provides two-way communication between the FC and Axe-Fx III over our new FASLINK™ II standard. More efficient than MIDI and more rugged than Ethernet, this format is worthy of the most challenging conditions. A FASLINK II thru port on every FC allows you to daisy-chain up to four FC units for bigger rigs. FASLINK II even powers your first FC, while an AC adapter is required for any daisy-chained units.

Each FC controller has four 1/4" jacks for connecting expression pedals such as the Fractal Audio EV, and another two 1/4" jacks for connecting up to four external switches. Pedals and switches can be used in the Axe-Fx III for a range of global and modifier options.

Enjoy the FC Controller and thank you for choosing Fractal Audio Systems.

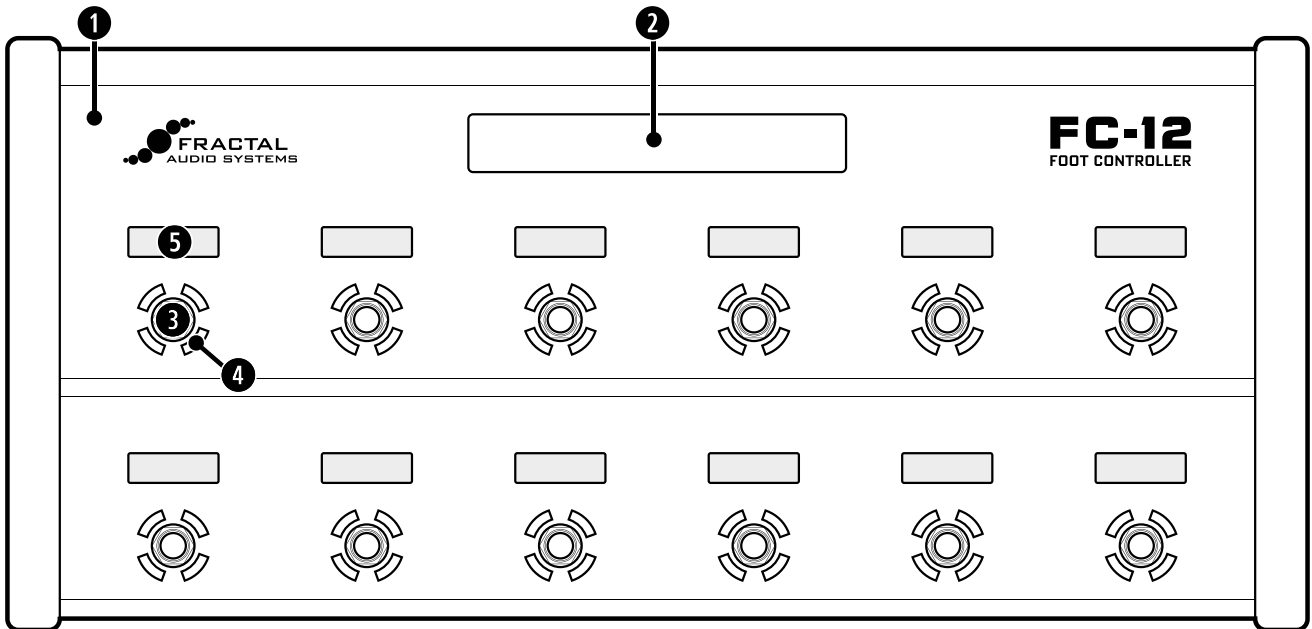
# FEATURE SUMMARY

- The FC comes in two different versions: FC-12 with 12 switches and FC-6 with 6 switches. Aside from the number of switches, the two models are identical in capabilities.
- A FASLINK™ II port on the Axe-Fx III or FM3 provides 2-way communication, and will also provide phantom power to the first FC unit in a daisy chain. (Axe-Fx II not supported).
- FASLINK™ II “thru” port for connecting up to four FC units total in a single daisy chained rig. (Two max for the FM3)
- In a daisy chain, units can “Mirror” each other, so a tech off-stage can share switching responsibilities with an artist on-stage.
- “EZ Mode” makes it simple to assign the function of any switch with one tap and a few adjustments.
- Built-in footswitch categories include banks, presets, scenes, effects, looper, control switches, and more.
- Override the function of up to 24 switches on a per-preset basis.
- The Tap Tempo function flashes the tempo on the footswitch LED ring.
- The Tuner function shows the Axe-Fx III tuner in the main display of the FC Controller.
- The FC is plug-and-play with simple settings, or you can create your own Layouts for the ultimate custom controller.
- Layouts are “Pages” of footswitches that you can switch between on the fly, granting far greater control with fewer switches.
- You can change layouts on the fly using the “Master Layout Menu”, accessible by an easy footswitch combination – or with special dedicated “Layout Select” footswitches.
- Every footswitch can be assigned up to two functions: one for TAP and one for HOLD.
- With “Layout Link,” any Tap or Hold footswitch can also change the layout on one or more connected FC controllers.
- Every footswitch has its own variable-color, variable brightness LED ring which also shows the status of on, off, or dim depending on the state of whatever the switch is connected to.
- Every footswitch also has its own customizable, 128×32 graphical Mini LCD display.
- Mini-Displays can automatically and dynamically display preset names, scene names, effect names, channels, and more, including custom text.
- The 2×20 Transflective Main Display shows the current preset, scene and information about switches when you activate them.
- SSS™ switches are extremely quiet and durable, with no mechanical switch contacts to fail.
- The FC can trigger the Axe-Fx III to generate and transmit MIDI messages from its own MIDI out port to connected devices.
- Add up to Four External Pedals and Four external switches per FC unit, integrated natively with the Axe-Fx III modifier system.
- External Switches can be used directly with the “Modifier” system, or set up as “Stand In Switches” with almost all of the capabilities of onboard switches.
- The FC is built tough for stages and touring with a powder-coated 16-gauge steel chassis and tough protective end-caps.
- Most FC features are built in to the Axe-Fx III, so you won’t need to update or backup your FC controller separately. As with all Fractal Audio products, this means that the FC will enjoy a future of updates and innovations for years to come.
- FC-12 Dimensions: 20.2" x 9.2" x 3.5" (512mm x 233mm x 88mm). Weight: 11 lbs (5 kg).
- FC-6 Dimensions: 11.2" x 9.2" x 3.5" (283mm x 233mm x 88mm). Weight: 6.7 lbs (3 kg).
- A full suite of FC editing tools is built in to the editor of each supported product (Axe-Edit, FM3-Edit).

# 2 HARDWARE OVERVIEW

## THE TOP PANEL

The FC-12 is shown here. The FC-6 is identical except for the number of switches and the width/weight of the unit.

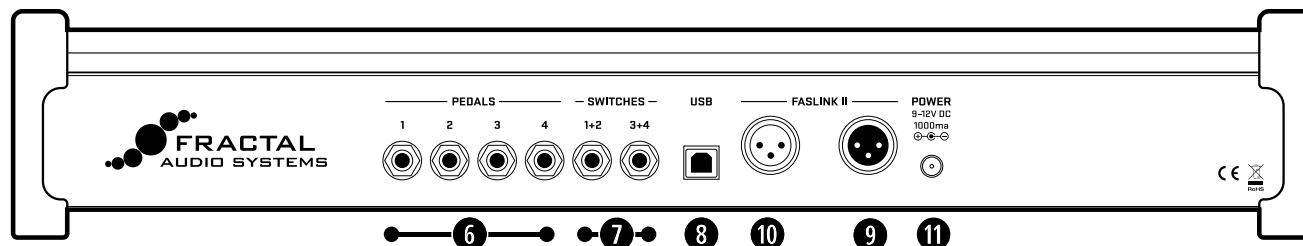


- 1 Chassis** – The FC is housed in a rugged steel chassis. A pair of protective end caps also serve as feet and provide a convenient gap to lift the unit from the floor.

  - FC-12 Dimensions: 20.2" x 9.2" x 3.5" (512mm x 233mm x 88mm). Weight: 11 lbs (5 kg)
  - FC-6 Dimensions: 11.2" x 9.2" x 3.5" (283mm x 233mm x 88mm). Weight: 6.7 lbs (3 kg)
- 2 Main Display** – The main display is a 2x20 transfective character display that remains highly legible under a variety of adverse lighting environments. The main display shows the name of the current preset (and optionally its number) and the name of the current scene (and optionally its number) as well as various other useful pieces of information when you activate a switch, select a layout, and so on.
- 3 Footswitches** – Footswitches are the main attractions of any foot controller. The switches on the FC Controller use our proprietary Solid State Switching (SSS™) technology. They feature extremely smooth, quiet, action, and have no mechanical contacts to fail. Each footswitch can be assigned your choice of one Tap and/or one press-and-hold (“Hold”) function, and these can be different on every “layout”. A layout is like a “page” of switches, and there are 8 different layouts you can switch freely between, plus one special layout called the “Master Layout Menu”. Learn more in [Section 4: Layouts & Switches, on p. 13](#).
- 4 LED Ring** – An LED ring around each switch changes color and brightness to help you navigate and operate the FC. By default, the color shows the category of the switch’s Tap function. Presets, for example, are green, banks are yellow, effects are blue, and so on. You can change the color for any category or any individual switch. The LED ring also changes its brightness to show the state of a switch, and each function has its own built-in rules for how this works. For example, a scene switch is dimmed unless that scene is selected. An effect switch is dim when the effect is bypassed and bright when the effect is engaged (or off altogether if that effect is not found in the current preset.) You can change ring brightness in **Setup: Foot Controllers: Config** ([see p. 27](#)).

## 2 HARDWARE OVERVIEW

- 5 LCD Mini-Display** – An LCD mini-display above each footswitch provides a useful label or indicator for the switch. For example, a preset switch will default to showing the name of the preset that will load if you activate that switch. Scene switches show scene names. For greater flexibility, each of the different functions has its own list of mini-display “Label” options you can choose from, and you can even enter custom text (though why anyone would want to label a footswitch “kebab” is beyond us.)



## THE REAR PANEL

- 6 PEDAL Jacks** – Four PEDAL jacks allow connecting up to four expression pedals or switches. The Fractal Audio EV series pedals are perfect for this purpose, with linear action and long smooth travel. Pedals connected to the FC are natively integrated with the Axe-Fx III modifier system, without the need to configure any parameters other than the modifier source. Connect pedals using TRS-to-TRS cables, and be sure to calibrate before use. See [“Expression Pedals” on p. 8.](#)
- 7 SWITCH Jacks** – Two SWITCH jacks allow connecting one or two switches each (1+2 and 3+4). You can use switches directly as the source of a MODIFIER in a connected processor (see your Owner’s Manual) or as “Stand Ins” to remotely trigger any of the switches in any FC layout. See [“External Switches” on p. 9.](#)
- 8 USB Port** – The USB port on the FC controller is reserved for future use. It is not required for firmware updates, which are performed via the Axe-Fx III over FASLINK II. In fact, most features of the FC controller are part of the Axe-Fx III itself, meaning that new Axe-Fx or FM3 firmware can also add features to the FC.
- 9 FASLINK II port** – (XLR-Male connector) The primary FASLINK II port (right XLR jack, looking at the rear panel) allows connecting an Axe-Fx III. The FASLINK II connector provides power and two-way communications over a single standard male-to-female XLR cable (such as a typical Mic cable).
- 10 FASLINK II (Daisy Chain Connector)** – (XLR-Female connector) The secondary FASLINK II port (left jack, looking at the rear panel) allows connecting up to three additional daisy-chained FC units. Connect additional units using a standard XLR cable, but remember that only the first unit in a daisy chain is powered by the Axe-Fx III; additional units require 9–12V DC at their power inlets (see below). Daisy-chaining allows you to extend footswitch “real estate” or to mirror different FC units to each other. (In comparison to “master/slave” controllers of the past, mirroring keeps the switches and displays of multiple units completely in sync—in effect offering a “dual master” scenario.) See [“Daisy Chaining” on p. 6](#) for more information.
- 11 Power Inlet** – The first FC unit connected to an Axe-Fx III requires no AC power; the XLR cable powers the unit and handles all communications. Any additional FC units connected in a daisy chain ([p. 6](#)) require power from an AC adapter. Adapters are available from <https://shop.fractalaudio.com> or you can use a third-party adapter rated at 9–12V DC, 1000 ma, negative center, 2.5mm barrel. FASLINK II will not power the FC Controller if the AC Adapter is connected—whether or not the adapter is plugged in.



# 3 SETTING UP

## BASICS

This Guide assumes that you are using a single FC-6 or FC-12. For larger setups, see [“Daisy Chaining” on p. 6.](#)

These diagrams show the Axe-Fx III, but an FM3 can be used instead, with one exceptions: the Axe-Fx III supports daisy chaining up to four FC Units and the FM3 supports two.

### CONNECT USING FASLINK II

Setting up a single FC unit is simple. Use a generic Male-to-Female XLR cable to connect the FASLINK™ II port of the Axe-Fx III to the FASLINK™ II port of the FC as shown in the diagram below. This connection provides both power and 2-way communications—sending footswitch and pedal commands to the Axe-Fx III, and sending the FC all required programming instructions, status updates, mini-display messages, and more. The FC is even “hot swappable” meaning there is no need to power down the Axe-Fx III.

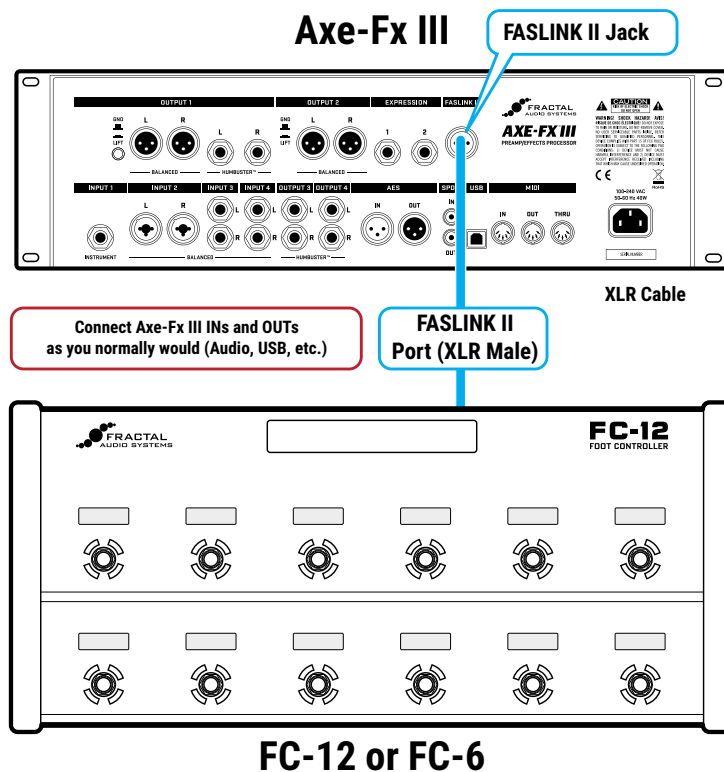
### LOAD THE DEFAULT LAYOUTS

No configuration is needed for the FC to function fully. However, we recommend loading the factory default layouts and FC Configuration before first use. To do so, please perform the following simple steps:

- ▶ Page to **SETUP | FC Controllers | Reset**
- ▶ Select the relevant entry for FC-6 or FC-12 and press ENTER.



Performing “Reset System Parameters” on the Axe-Fx III will erase ALL of the stored settings for the FC Controller, setting them to blank. If this happens, you will need to re-load the Factory Default Layouts & Settings as described above, or restore a backup of your Axe-Fx III System settings.



### 3 SETTING UP

# DAISY CHAINING

FC Controllers can be connected in series or “daisy-chained” to form a mega-controller of up to four units operating as one. (The FM3 allows a maximum of two.) This allows access to more switches at once (reducing the need to switch layouts). You can chain units of any type in any order, and any unit can load any of the eight layouts at any time.

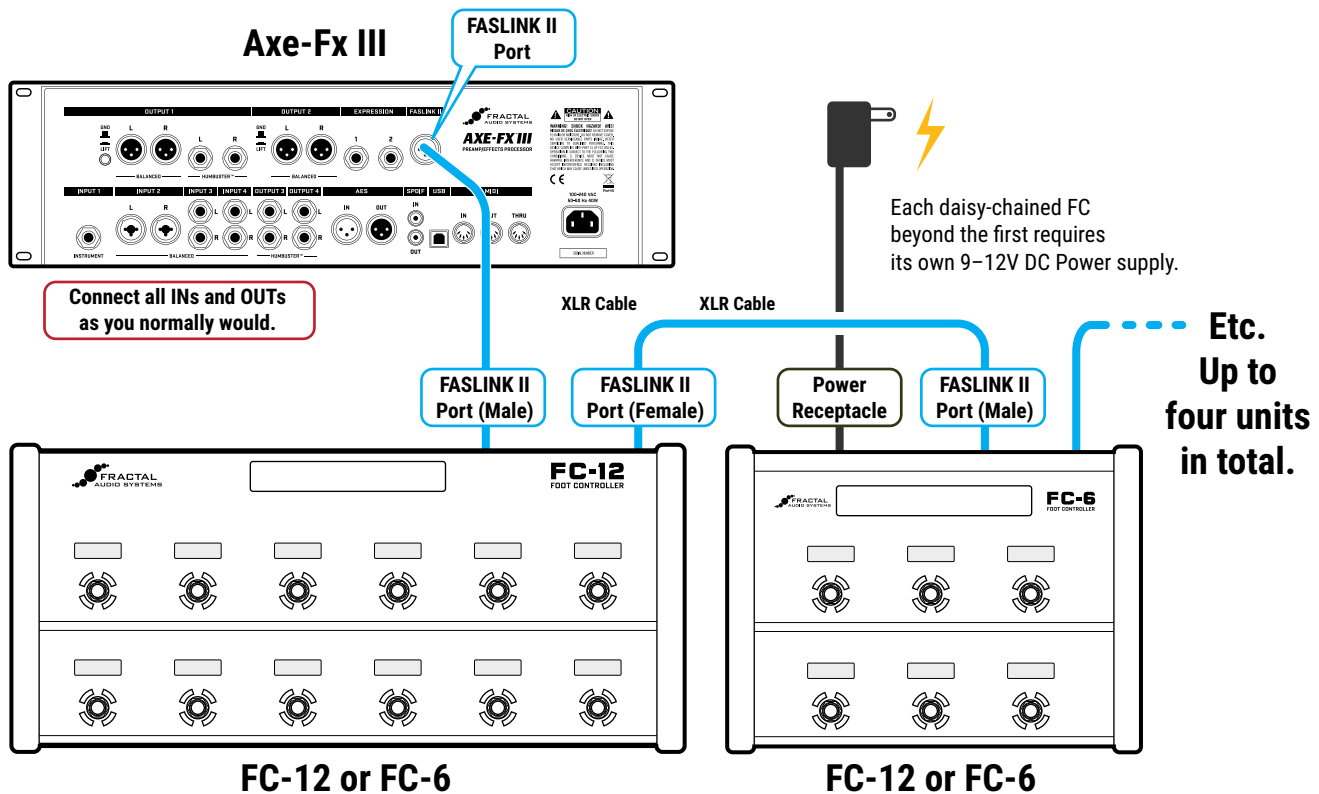
Each FC supports up to four expression pedals and four external switches. See [“Expression Pedals” on p. 8.](#)

## CONNECT THE FIRST FC WITH FASLINK II

Setup begins just like when you use a single FC unit. Use a generic Male-to-Female XLR cable to connect the FASLINK™ II port of the Axe-Fx III to the FASLINK™ II port of the first FC. This connection powers the unit and carries communication to and from the entire chain.

## **!** CONNECT ADDITIONAL FC UNITS WITH FASLINK II AND AC POWER

**IMPORTANT:** Only the first unit connected directly to the Axe-Fx III will be powered by FASLINK II. Each unit in a daisy chain after the first requires local power via an AC Adapter rated 9–12V 1000 ma. Compatible AC Adapters are available at <https://shop.fractalaudio.com>



## CONFIGURATION

Daisy-chained FC units require no special configuration, though you will probably wish to design custom layouts for use in this type of setup. In fact, you can specify which layout should be loaded upon startup for each connected FC unit by using the options on the **Devices** page of the **FC Controllers** menu under **SETUP**.

# MIRRORING

Mirroring is a special setting that forces two or more daisy-chained FC units to remain perfectly in sync. They show the same layouts, with all the same switches and switch states. Any change to any mirrored unit is reflected instantly on the other mirrored unit(s). The usual scenario for mirroring involves an artist on stage with a tech offstage who helps with switching.

To mirror one FC to another:

- ▶ Change to the **Devices** page of the **FC Controllers** menu under **SETUP**.
- ▶ Select the row for the FC unit that you want to mirror, then select the desired unit to mirror using the **D** knob.



A note on pedals and switches: Connected expression pedals and switches are NOT mirrored, since pedal jacks are named explicitly in modifiers or controller assignments. For example, "External 1" on your Axe-Fx/FM3 might be set to "FC#1 PEDAL #1". A preset using External 1 then will ONLY respond to that specific pedal and not the pedal 1 jack on a mirrored FC. Fortunately, different presets, effects, or parameters can be assigned as desired to individual pedal or switch jacks, so in one song, you might operate a wah, while during a different song, your tech could do it for you offstage while you fly through the air on wires.



Any unit(s) can mirror any other unit(s), so be careful not to create a circular mirror (1 mirrors 2, 2 mirrors 1). This will cause one or both FC units to behave unpredictably until the problem is corrected.

# EXPRESSION PEDALS

## CONNECT AND CALIBRATE EXPRESSION PEDALS

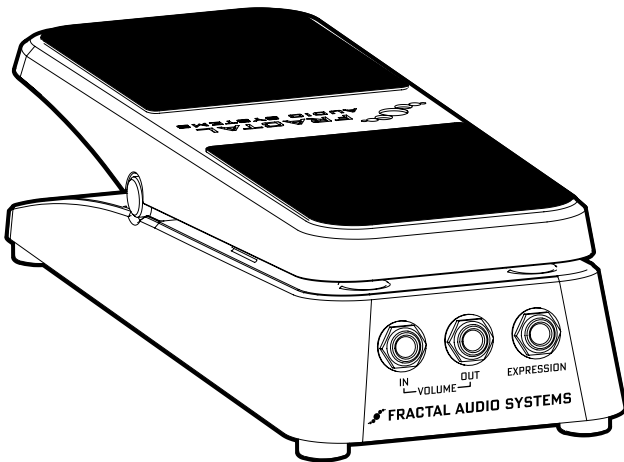
Each FC Controller supports up to four expression pedals connected at the rear panel PEDAL jacks using TRS-to-TRS cables. The Fractal Audio Systems EV pedal is perfect for this application, with true linear response, smooth action and a long throw. Third party pedals rated 10–100KΩ may also work.

To set up an expression pedal:

- ▶ Open **SETUP | FC Controllers | Remote**.
- ▶ If you have more than one FC controllers connected, select the desired **Target FC** unit using the **A** knob.
- ▶ Find the desired pedal (1-4) and ensure that **Pedal Type** is set to “CONTINUOUS”.
- ▶ Navigate to the **Pedal Calibration** function for the desired pedal and press the **ENTER** button.
- ▶ Follow the on-screen instructions to perform calibration. Watch the on-screen slider, which shows the reading of the pedal as you move it. The slider should move over a large portion of the range. Many brands of pedal will not reach the top, but all should reach the bottom.
- ▶ Press **ENTER** when finished.

## CONNECT A SWITCH AT A PEDAL JACK...

Instead of a pedal, you can connect a single switch at any Pedal jack. Follow the instructions above and simply set **Type** to “MOMENTARY” or “LATCHING” based on what you’re connecting and how you want it to work. (If you’re not sure, check with the switch manufacturer or try both settings to see which works better.) Calibration is not required. You can use a normal guitar cable (TS) for switches.

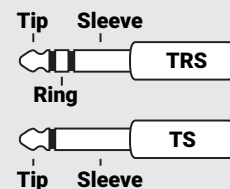


The Fractal Audio Systems EV-1 features both EXPRESSION out and analog volume in/out. In comparison, many other expression pedals do not have a true linear response, making it harder to control sound functions predictably.

It is perfect for use with the FC Controllers and other Fractal Audio products.

**WHAT IS TRS?** “TRS” stands for TIP-RING-SLEEVE and describes an endplug or jack with three insulated contacts. Normal guitar cables are TS (Tip-Sleeve) since they lack the ring which serves as a third contact. The illustration at right shows both types.

**FAQ:**



# EXTERNAL SWITCHES

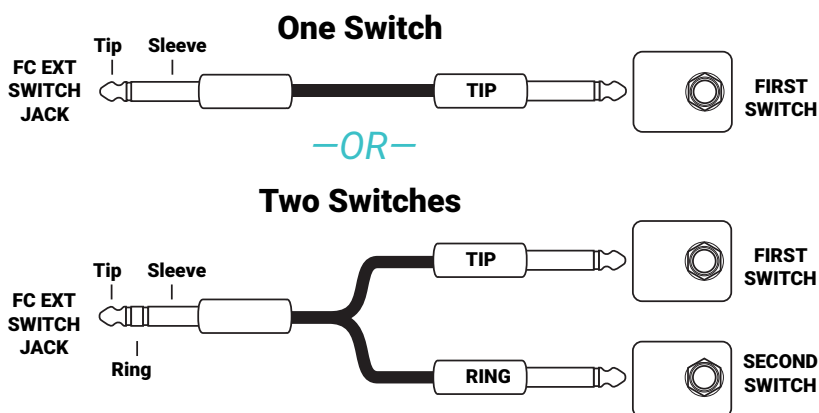
## CONNECT AND SET UP EXPRESSION PEDALS

Each FC Controller supports up to four external switches connected at the two rear panel SWITCH jacks.

You can use one switch or two switches at each jack. Any “make/break” switch can be used. Both latching/toggle and momentary switches are supported, and there is even a feature to allow momentary switches to behave more like latching/toggle switches.

For a single switch, use a normal guitar cable.

For two switches, use a ¼” TRS-to-dual ¼” TS “Y-cable” (aka an “insert cable”) where the tip side is used for the first switch and the ring side for the second, as illustrated below:



## SWITCH SETUP

This section needs to be written after several bugs are fixed. XX

Two settings govern the behavior of each switch. Find these options under **SETUP | FC Controllers | Remote**.

**Ext. Switch # Behavior** – Choose from the two options here based on what type of switch you have connected and how you want it to work.

**FOLLOW HARDWARE:** Xx This is the default setting. The actual switch hardware determines how a connected parameter or modifier will work. A momentary switch will behave with a momentary action (Hold = On, Release = Off). A toggle switch will behave with toggle action (Tap = On, Tap Again = Off).

**IMPORTANT:** Certain features of your Fractal Audio product are already smart enough to operate as a toggle even when a momentary switch is connected. Xx

**VIRTUAL TOGGLE:** Xx Use this setting only when a momentary switch is connected but you want it to work as a toggle switch instead (Tap = On, Tap Again = Off).'

**Ext. Switch # Polarity** – Normally, a switch is off when the connection is broken and ON when the connection is made. This option reverses these and can be used if a connected switch does not behave as you would expect.

# ASSIGNING FC PEDALS AND SWITCHES

Fractal Audio Systems processors feature a powerful system of automation and remote control called “**Modifiers**”. A modifier, for example, allows an expression pedal to operate a wah or whammy. Your processor’s Owner’s Manual covers modifiers in detail.

The FC Controller is “plug-and-play” with the modifier system, meaning that when you browse through the list of modifier **Sources**, you will discover multiple FC Pedal and FC External Switch options, depending on how many connected controllers are supported by your device.

Most factory presets – and many other presets you might create, download, or purchase—will *not* use these FC sources directly. Instead, they will be set up to use an “External Controller” – a go-between which sits between the modifier and the FC. External Controllers are more universal and user-friendly because they can be configured globally. There are 16 numbered External Controllers. By default, they are all set to “NONE” but we can easily map them to the pedals and switches of the FC Controller.

Many factory presets are already set to use **External 1** for operating various wah and whammy effects (and more). As an example, let’s set **External 1** to use **FC#1 Pedal 1**:

- ▶ Open **SETUP | MIDI Remote | External**
- ▶ Locate the External Controller of your choice (External Control 1 for this example).
- ▶ Turn the VALUE wheel to set External 1 to “FC#1 PEDAL 1”.
- ▶ Now, a pedal connected to External 1 should operate the wah in, for example, factory preset #001.
- ▶ Continue setting other external controllers as desired and press **EXIT** when you’re finished.

## EXTERNAL CONTROLLERS: A REFRESHER

**External Controllers** are modifier sources that are in turn controlled themselves via something else (external MIDI or a connected pedal or switch). For example, if a modifier source on a Wah is set to “External 1” and External 1 is set to “FC#1 PEDAL 1”, then that pedal will operate the Wah.



Fig 1.

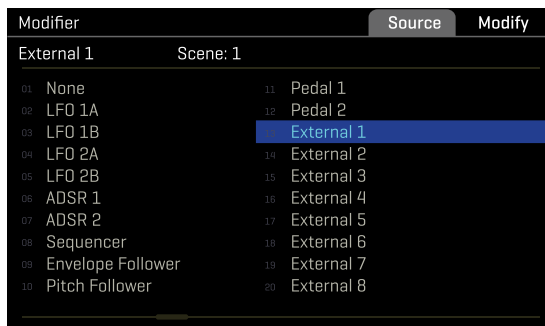


Fig 2.

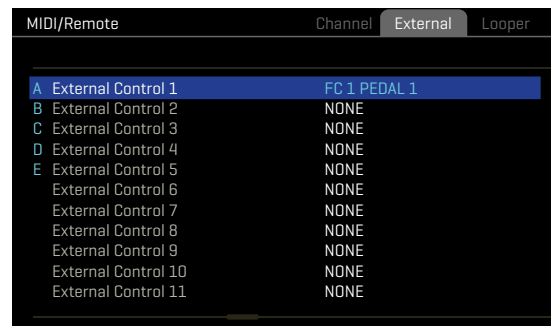


Fig 3.

**Fig. 1)** The target parameter: Wah Control in this case. The yellow dot lets us know that a modifier can be used here.

**Fig. 2)** When you select the parameter and press **ENTER**, the modifier menu is shown. The **SOURCE** page lists all of the various options that can be used to control this parameter. Here, we have selected **EXTERNAL 1**, as is used on many Factory presets.

**Fig. 3)** But what IS “External 1”? In fact, it can be anything you choose: a MIDI message, an expression Pedal, or an external switch. This selection is made under **SETUP | MIDI/Remote | External**. Here, we have chosen **FC#1 Pedal 1**. Voila!

# EXTERNAL SWITCHES & GLOBAL FUNCTIONS

Aside from **External Controllers** (detailed above) the Axe-Fx III is equipped with dozens of other global functions that can be controlled using FC Pedals and Switches. For example, the “Other” page of the **MIDI/Remote** menu under **SETUP** contains global volume options for all inputs and outputs. Almost all of these global options can be set to the FC pedal of your choice.

Be sure to use switches of the appropriate type for the function you have selected. For example, a Latching type switch would be best for a channel or bypass control. Please refer to the Axe-Fx III manual for more about global Remote functions.

The following example shows how to set the global **Output 1 Volume** to be controlled by **FC#1 Pedal 2**.

- ▶ On the Axe-Fx III, page to the **Other** page of the **MIDI/Remote** menu under **SETUP**.
- ▶ Locate the remote function of your choice (**Output 1 Volume** for this example).
- ▶ Turn the **VALUE** wheel to select the desired FC pedal or switch (“FC#1 PEDAL 2” for this example).
- ▶ You may wish to make other assignments on this or other menu pages.
- ▶ Press **HOME** when finished.



If for some reason you find yourself **without** one or more of the pedals you normally use with the FC, it may assume they are in the TOE DOWN position. It is sometimes best in this case set the corresponding External or Global Controller(s) on the Axe-Fx or FM3 temporarily back to “NONE”, which is equivalent to the HEEL DOWN position.<sup>1</sup>

<sup>1</sup> Once an external controller is set to “NONE” you can “park” the missing controller at 0% or 100%. See your owner’s manual for more information about the **External Controller Initial Value** feature.



The Axe-Fx III has two onboard pedal jacks, referred to in the MIDI/Remote menu simply as “PEDAL 1” and “PEDAL 2”.

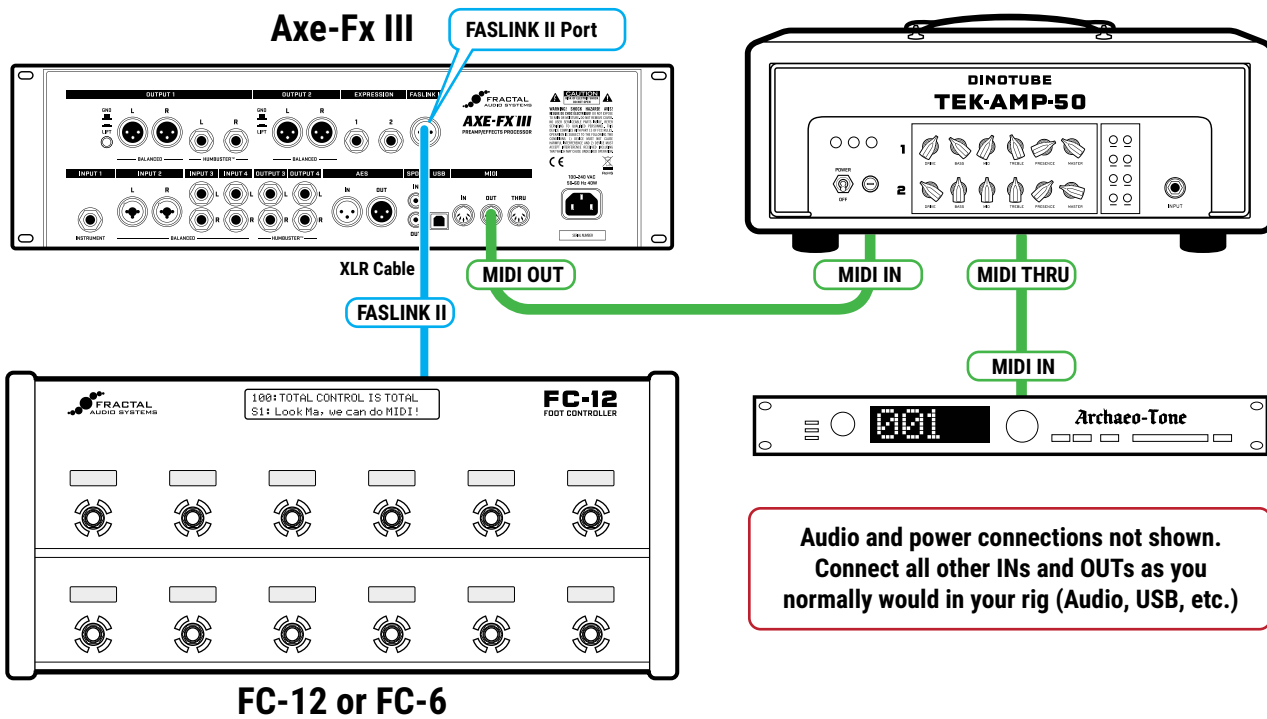
The FM3 has “PEDAL 1 (EXPR OR TIP)” and “PEDAL 2 (EXPR OR TIP)”

DO NOT confuse the above with the entries for a connected FC pedal, which will appear as “FC#1 PEDAL 1”, “FC#1 PEDAL 2” etc.

# MIDI CONNECTIONS

You may have noticed that the FC is not a MIDI controller. It does not have MIDI ports. Combined with the Axe-Fx III, however, it becomes part of a MIDI control system. Even without an FC, the Axe-Fx/FM3 can serve as the centerpiece of a MIDI rig, transmitting various messages from its **MIDI OUT** port. The FC controls the Axe-Fx/FM3 which in turn sends MIDI messages. Don't be mistaken and expect MIDI messages at the MIDI THRU port of the III; all MIDI messages are generated by the Axe-Fx III at its MIDI OUT port.

Here's a simple rig diagram showing how the FC and Axe-Fx III might be used to send MIDI to a connected amp, which also passes messages on to a processor.



Here, a basic MIDI setup is extended beyond the amp to one connected MIDI device. The FC controls the Axe-Fx III, which generates and transmits messages at its MIDI OUT port.

**FAQ: WHY NO MIDI PORTS ON THE FC?** Early during the design of the new foot controllers for our new flagship processor, we decided that the FC should be “lean and mean.” Instead of crouching on the floor to delve through menus, FC owners would set up and operate the unit using the color screen and interface of the mothership. Similarly, all of the “heavy lifting” would be done by the Axe-Fx III, keeping the FC’s price down and extending the “client-server” concept of total integration. The benefits of this are great. Have you noticed, for instance, that as things change on your Axe-Fx III or in Axe-Edit, the FC is updated automatically? With our new highly efficient FASLINK II protocol, the decision was complete. MIDI had no place on the floor, and the Axe-Fx III would become the MIDI master!



# 4 LAYOUTS & SWITCHES

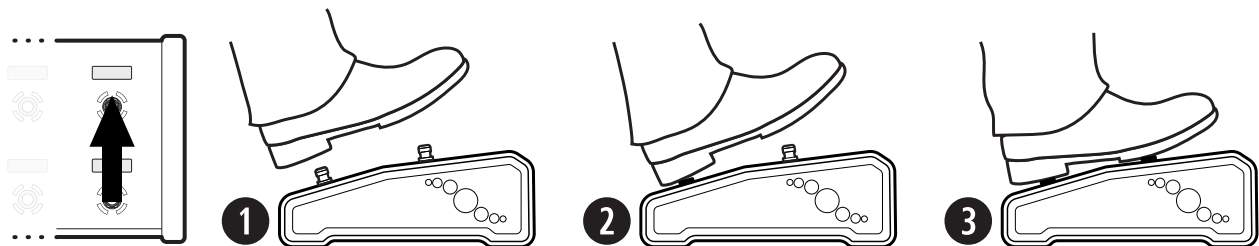
The FC is organized around **Layouts**. A layout is a set of up to 12 **footswitch definitions**, each of which includes one Tap and one Hold function. You can change layouts on the fly to access different “pages” of switches<sup>1</sup>. For example, one layout might be used to select Presets or Scenes, while a different layout operates the Looper. Any layout can be completely customized to serve your own needs. Layouts even have their own names to make navigating easier. The Axe-Fx III provides eight layouts.

<sup>1</sup> FC Layouts are not called “pages” to avoid confusion with *menu* pages in the Axe-Fx III.

## THE MASTER LAYOUT MENU

Switching from one layout to another is the key to the versatility of the FC. There are many ways to do this, but the built-in **Master Layout Menu** (“MLM” for short) will probably be the most popular. The Master Layout Menu grants instant access to other layouts, one per footswitch.

To show the Master Layout Menu, rock your foot from heel to toe over both of the two right-most footswitches on your FC, as shown in the following illustration of the “MLM Switch Combo”.



The Master Layout menu automatically assigns different layouts to different footswitches in order. Footswitch 1 loads layout 1, Footswitch 2 loads layout 2, and so on. If your layouts have names, these will be shown in the Mini-Displays. When you activate any switch to select a layout, it is loaded immediately. The currently selected layout will be shown with a bright LED ring, while other options are dimmed. To exit the MLM without changing the current layout, just select the bright switch for the current layout again.

If the lower right switch has a Tap function, it will not be activated by the MLM Switch Combo. If the lower right switch has a Hold function, you can still easily execute the MLM Switch Combo quickly, before the Hold function fires. If the Hold function should fire, the Master Layout Menu will still be displayed. Learn more in [“The Rules of Switch Timing” on p. 14](#).

**QUICK TIP** When you design your own layouts, consider that the best Hold function for the lower right switch is probably one that doesn’t change your sound if you accidentally fire it while activating the MLM. A good example would be “Reveal Hold Functions”, present in some of the default layouts.

**QUICK TIP** A layout can also include Tap or Hold switches that change to other layouts without the MLM. See [Section 5: Footswitch Functions](#) for more information on this and other switch functions.

### MLM PAGING

Since there are eight layouts and the FC-6 has only 6 footswitches, the Master Layout Menu is split into two views. Just perform the “MLM Switch Combo” again and the FC-6 will toggle between the two pages of the Master Layout Menu.

# TAP & HOLD FUNCTIONS

Every switch in every layout can be programmed with individual TAP and/or HOLD functions.

**Tap functions** – used throughout history for guitar effects and beyond – are best for changes that require tight timing. For example, a tap switch set to SELECT SCENE is ideal to change the sound precisely as a solo begins.

**Hold functions** on the other hand, require a “long press” and are fired after a brief delay, so their timing is less precise. Hold switches are perfect for functions like opening the Tuner, or accessing an alternate layout such as Looper Control.

## THE RULES OF SWITCH TIMING

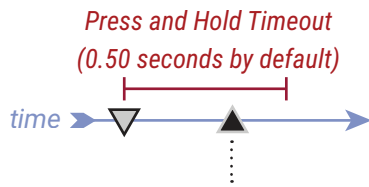
Like every guitar product in history with “hold” footswitches, the FC must follow rules for timing so it “knows” whether you are trying to activate the Tap or the Hold. A switch with a Hold function must briefly delay the Tap function until it can determine which one you are trying to activate. When this is the case, the tap is activated when the switch is *released* instead of when it is *depressed*—unless you continue holding the switch past the “Press and Hold Timeout” window. The following illustrations help explain switch firing and timing:

### TIMING FOR A TAP FUNCTION WITH NO HOLD FUNCTION



The Tap function fires at the moment the footswitch is depressed.

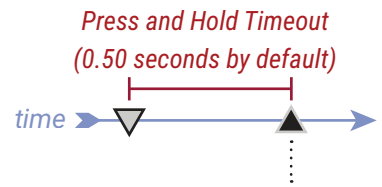
### TIMING FOR A TAP FUNCTION WITH A HOLD FUNCTION



The Tap function fires when you *release* the switch, as long as this happens before the **Press and Hold Timeout**.

If not, the Hold function eventually fires...

### TIMING FOR ANY HOLD FUNCTION



When you hold a switch, its **HOLD** function activates at the moment the **Press and Hold Timeout** runs out—whether or not the switch has a Tap function. This does not cause the Tap function to fire.



If you need tight timing from a Tap switch that has a Hold function, tap and release very quickly—even a fraction of a second early, knowing that the change will occur as your foot comes up.



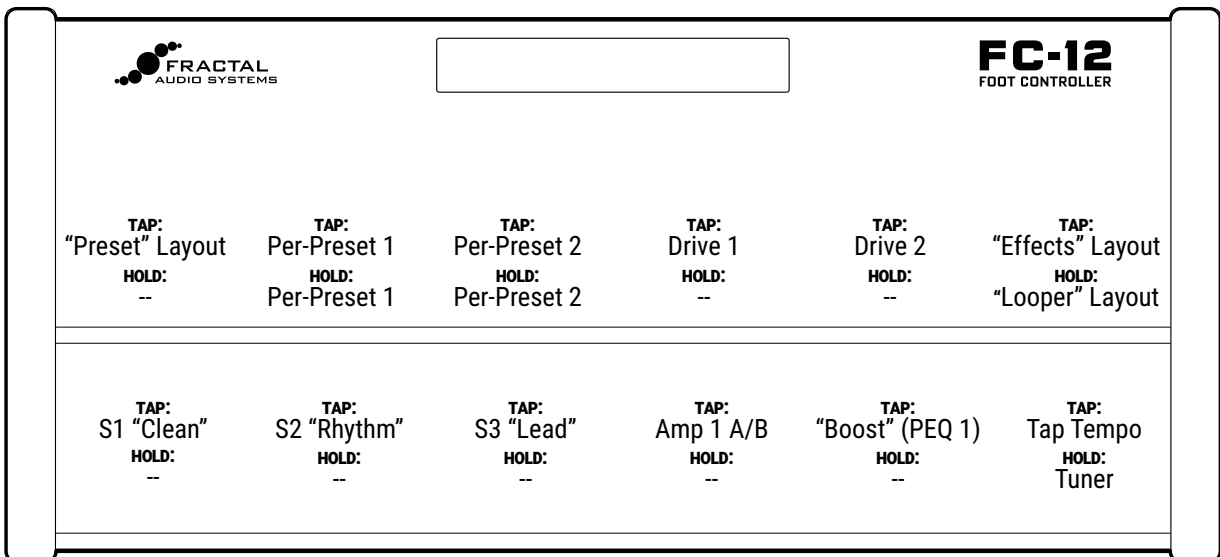
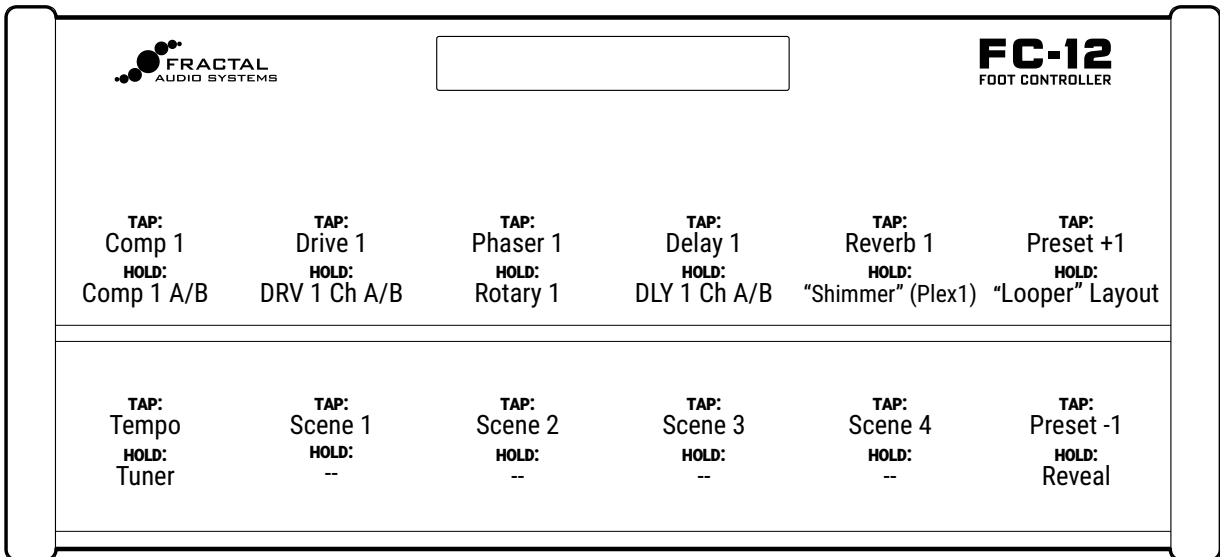
You can change the duration of the **Press and Hold Timeout** on the **Config** page of the **FC Controllers** menu under **Setup**. The default is 0.5 seconds. Make it *longer* if you find that you are activating Hold functions when you mean to activate Tap functions. Make it *shorter* to fire Hold functions sooner.

## PRESS & HOLD LABELS

The Mini-Display for each switch normally shows the label for the Tap function. While any switch is depressed – even for a normal “tap” – it changes to show the label of the Hold function, even if you don’t keep holding the switch down until its Hold function fires! Meanwhile, a special “**Reveal Hold**” function can also be utilized to cause all mini-displays to show the Hold functions for their switches. See [“The Footswitch Functions Guide”](#) for more.

# EXAMPLE LAYOUTS

Two sample FC-12 layouts are shown below, each created by a different member of the FC beta testing team. These are just two examples of the types of layouts that can be created using this flexible and powerful system.



# FACTORY DEFAULT LAYOUTS

Factory default settings for the FC include various pre-defined layouts: one for selecting presets, one for changing scenes, one for the looper, and so on.

The following pages detail the factory default layouts for the FC-6 and FC-12.

Our products have so many capabilities, and there are so many different categories of player (bedroom, small stage, touring professional, session player, etc) that there really is no such thing as an ideal layout—no “one-size-fits-all” solution. We have therefore provided a set of layouts to demonstrate the very basic capabilities of the FC.

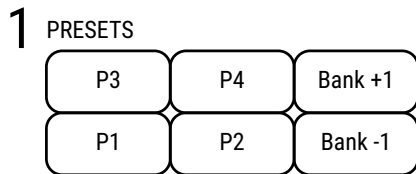
This gives beginners an easy way to select presets, change scenes, toggle effects, operate the looper and more. Those who desire to make changes will find it is very easy to create the perfect custom controller.

Here are a few things to know about the default layouts:

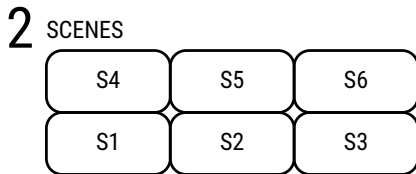
- ▶ **FC-6** and **FC-12** have different default layouts for the Axe-Fx III. Please follow the instructions under [“Basics” on p. 5](#).
- ▶ If you are using an FC with an FM3, you will need to create your own layouts for now. We plan to release downloadable layouts for these combinations.
- ▶ The Factory default layouts are designed to be *very* simple.
- ▶ The idea was that they should require almost no explanation, so someone using the FC for the first time could easily understand its broad capabilities.
- ▶ Changing between the default layouts relies almost entirely on the **Master Layout Menu** ([see p. 13](#)).
- ▶ Except as noted, the default layouts do not have Hold functions.
- ▶ Remember, you can change any switch on any layout to do anything you want. See [Section 5: Footswitch Functions](#) for a complete guide to all functions.
- ▶ Before either of the “Per-Preset” layouts will work, you’ll need to add custom switch definitions to your presets. See or your Owner’s Manual for more on this subject.
- ▶ FC-6/FC-12 Factory Layouts 7 and 8 are supported with simple tutorials on [p. 30](#) and [p. 32](#).

## FC-6 DEFAULT LAYOUTS

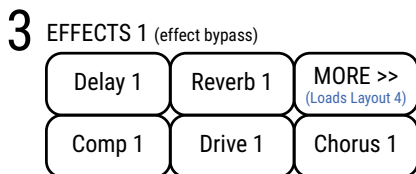
The default layouts for the FC-6 allow you to take the Axe-Fx III for a spin.



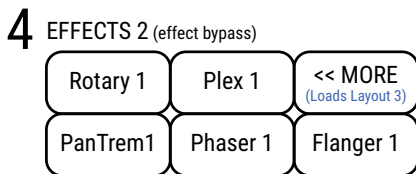
**Layout 1: Presets** is designed for switching/auditioning presets. It shows four presets at once, with BANK UP and DOWN switches to get to the next or previous four. Bank Size is set to 4 when you load FC-6 defaults. See the [“The Footswitch Functions Guide”](#) for more on Banks.



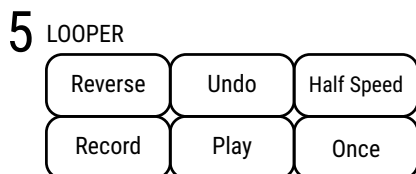
**Layout 2: Scenes** is designed for selecting scenes 1–6.



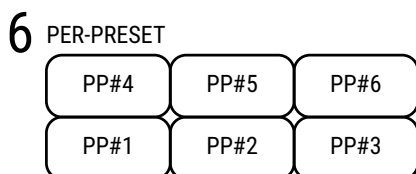
**Layout 3: Effects** is the first of two Effect layouts to “Bypass/Engage” effects. The MORE>> footswitch loads Layout 4 (below).



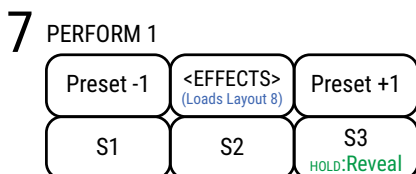
**Layout 4: Effects** is the second of two Effect layouts. The <<MORE footswitch loads Layout 3 (above).



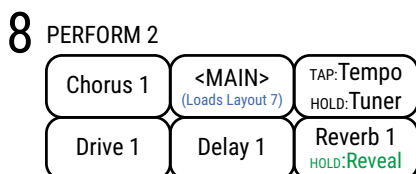
**Layout 5: Looper** offers essential Looper controls.



**Layout 6: Per-Preset** demonstrates per-preset “placeholder” switches (as compared to per-preset “overrides”). You will need to create switch definitions in your presets for this layout to work. See [“The Footswitch Functions Guide”](#) for more on this.



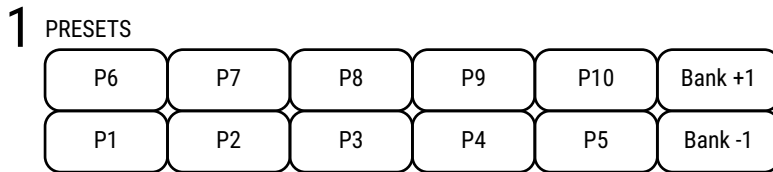
**Layouts 7 & 8** are examples to accompany [“FC-6: Short Tutorial” on p. 30](#). They represent one possible idea for a simple FC-6 performance layout. Here’s an overview: the “EFFECTS” and “MAIN” switches toggle between layouts 7 and 8. If you hold the lower right switch, it will show you all other Hold functions. Effect “Instant Access” switches toggle between channels A and B when you press and hold.



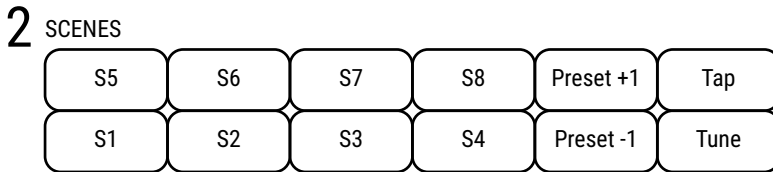
## 4 LAYOUTS & SWITCHES

### FC-12 DEFAULT LAYOUTS

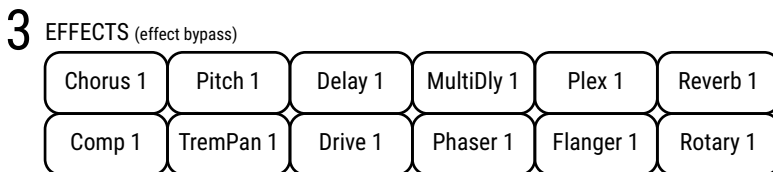
The default layouts for the FC-12 illustrate some of the many ways it can control the Axe-Fx III. The default Bank Size of 10 is recommended for use with these layouts.



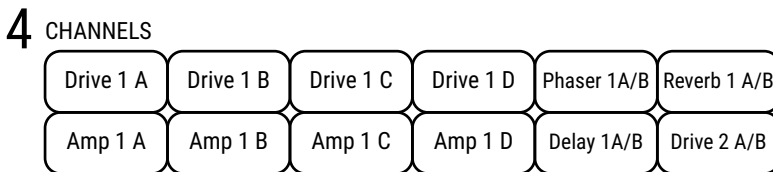
**Layout 1: Presets** is designed for switching or auditioning presets, with BANK UP and DOWN switches. Bank Size is set to “10” when you load FC-12 defaults. See [“The Footswitch Functions Guide”](#) for more on Bank Size.



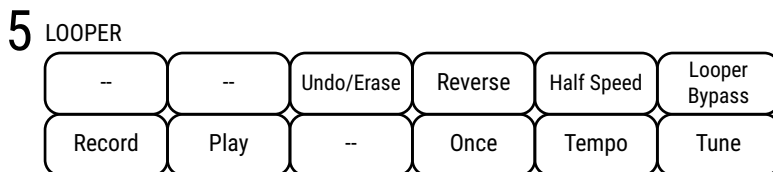
**Layout 2: Scenes** is designed for selecting scenes 1–8, with bonus switches for changing presets, Tap Tempo, and Tuner.



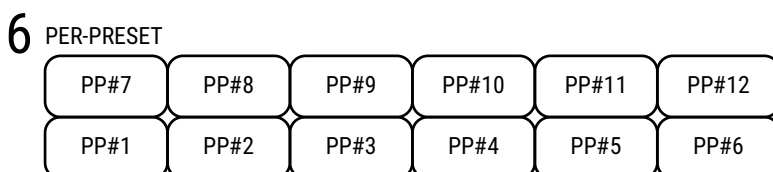
**Layout 3: Effects** allows you to bypass or engage twelve different effects!



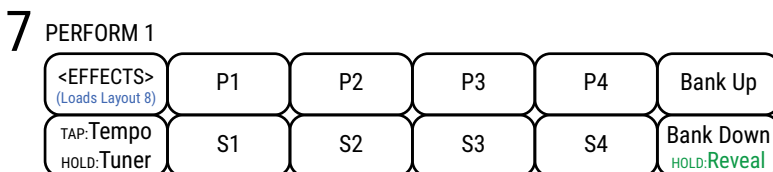
**Layout 4: Channels** is a simple demo of Amp, Drive, and other channel switching. (Note that some Axe-Fx III presets will not have channels dialed in.)



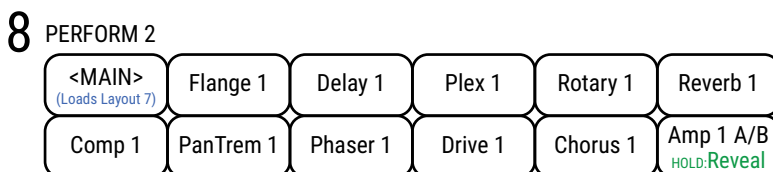
**Layout 5: Looper** offers every control on the Looper block, plus Looper Bypass/Engage, Tap Tempo, and Tune.



**Layout 6: Per-Preset** demonstrates per-preset “placeholder” switches (as compared to per-preset “overrides”). You will need to create switch definitions in your presets for this layout to work. See [“The Footswitch Functions Guide”](#) for more.



**Layouts 7 & 8** are examples covered by the tutorial on [p. 32](#). They show one idea for a simple FC-12 performance layout. Here’s an overview: the “EFFECTS” and “MAIN” switches toggle between layouts 7 and 8. If you hold the lower right switch, it will show you all other Hold functions. All effect switches toggle between channels A and B when you press and hold. Please see the NOTE on on p.xx about layout 7.



Tap FX switches for Bypass. Press and hold to toggle between Channels A and B

# EASY (“EZ”) EDITS

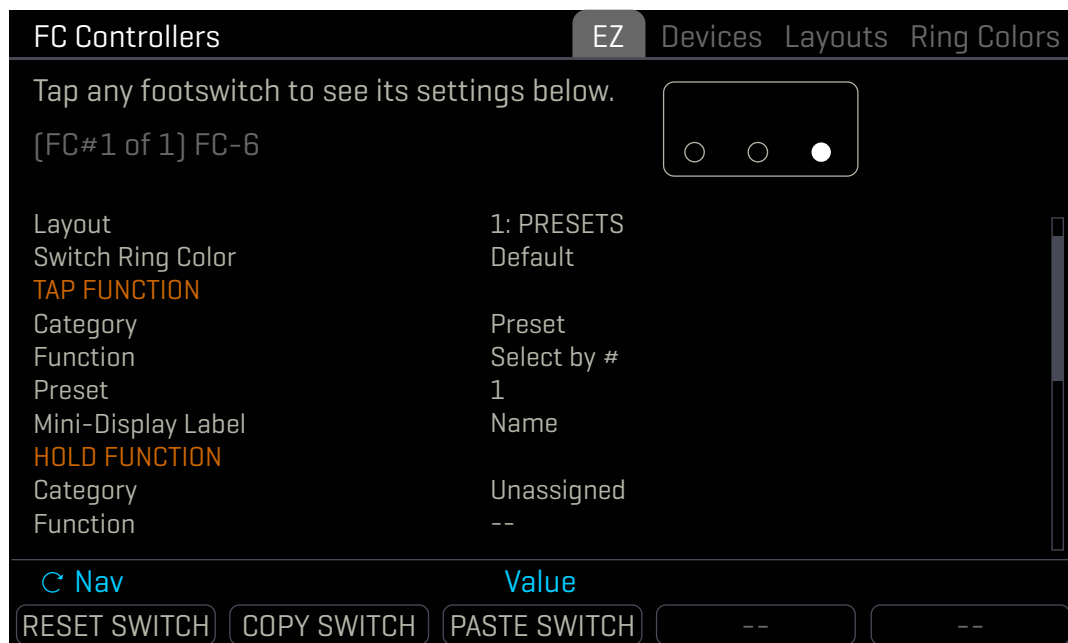
The FC makes it simple to change any footswitch in any layout to perform any function. The easiest way to do this is with the “EZ” Switch edit page as described below.



**IMPORTANT:** To avoid annoying screen jumps and sonic mishaps, all footswitches are DISABLED while you are on the EZ page. To test switch edits, change to a different menu page or press EXIT.

## TO USE THE EZ EDIT PAGE:

- ▶ On the Axe-Fx III, open Setup | FC Controllers and page to the “EZ” tab if it isn’t already selected.
- ▶ Press the footswitch you want to edit. It can be on FC controller.
- ▶ An onscreen graphic shows which footswitch you have selected.



- ▶ You can edit both **TAP** and **HOLD** functions for any switch.
- ▶ Use the **A** knob or **NAV** buttons to navigate the list and **C** or **VALUE** knobs to make changes.
  - Set the desired **Category** and the **Function**.
  - Set any **parameters** for the selected Function as desired. For example, when you select **Category: Preset** and **Function: Select by #**, a “Preset” parameter appears to let you dial in the desired preset number.
  - A separate reference, [“The Footswitch Functions Guide”](#) covers every function and all parameters.
  - You can also customize the ring color for an individual switch, overriding the defaults which are assigned to the switch Category. See [“The Footswitch Functions Guide”](#) for more on ring colors.
  - You can also select from different automatic “labels” for the Mini-Display, or even enter custom text. Details on the automatic labels are found throughout [Section 5](#).
- ▶ The EZ page also provides buttons to **RESET** (Clear with confirmation), and **COPY/PASTE** switches.
- ▶ Press another footswitch to move on, or press EXIT when you are finished.

**Reminder:** All changes in the **FC Controllers** menu take effect immediately with no need to store.

## 4 LAYOUTS & SWITCHES

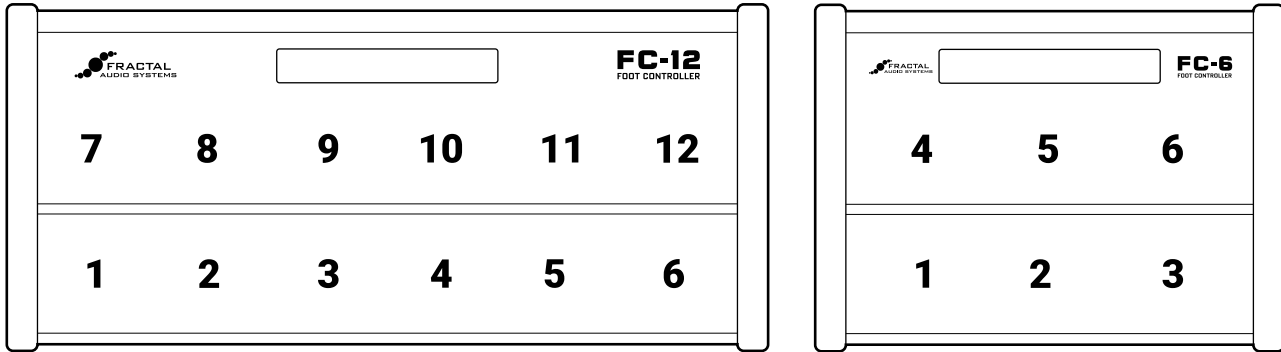
### **SWITCH “FLOW” ON THE FC-12 AND FC-6**

Every layout includes 12 switch definitions, even though the FC-6 has only 6 switches.

The 12 switches of every layout “flow” differently on the FC-6 and an FC-12, as illustrated below.

Switch definitions beyond the first 6 are only for use on the FC-12.

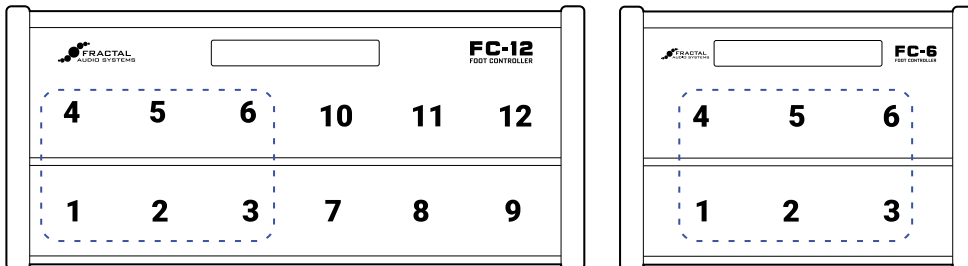
Switch definitions that don’t fit on one FC don’t “spill over” to another daisy-chained unit, and it is not possible to “shift” to the other half of a layout on a single FC-6.



*The 12 switches in any layout “flow” differently when loaded on an FC-12 or FC-6*

### **ALTERNATE ARRANGEMENT FOR CROSS COMPTIBILITY**

If you plan to share the same layouts on both an FC-12 and an FC-6, you may also like the option called “FC6/FC 12 Compatability Mode”, which arranges the switches on an FC-12 as shown below. Find it on the Config page of the FC Controllers Menu under Setup.



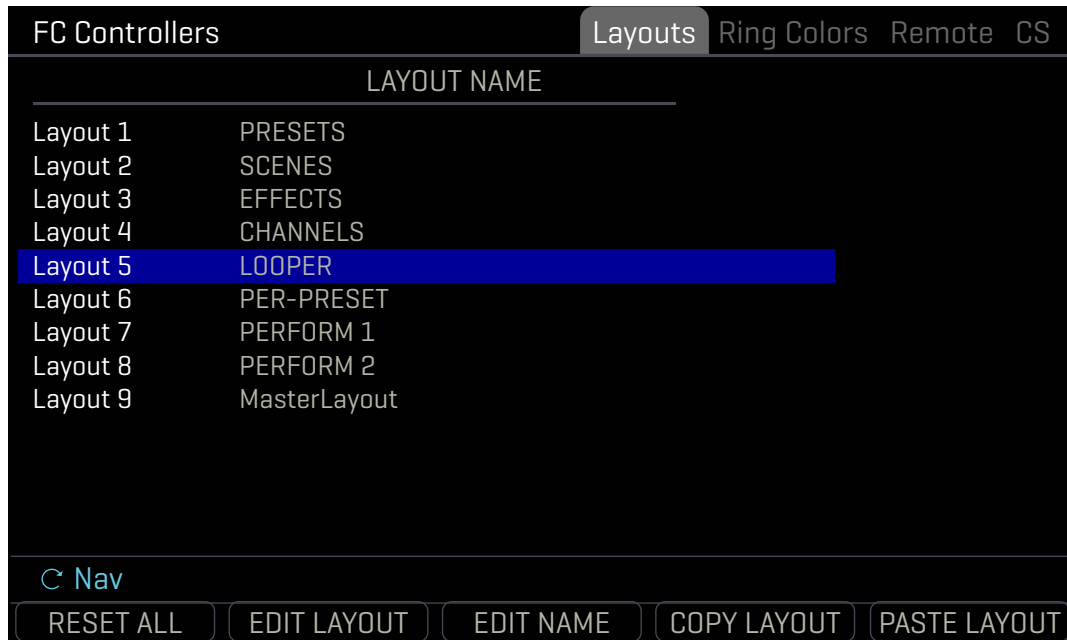


# THE LAYOUTS LIST

EZ editing is (you guessed it...) easy, but the FC also provides a deeper way to manually edit layouts and switches. The Edit Layout page of the Foot Controllers menu provides an overview of 12 switches, and also allows deep editing of individual footswitches, with all of the settings from EZ page and more.

On the Axe-Fx III, open the **Setup | Foot Controllers** and page to the “**Layouts**” tab.

- ▶ Use the **A** knob or **NAV** buttons to select the desired layout.



- ▶ The push-knobs offer additional functions:
  - **RESET ALL** sets all functions for all switches in all layouts to “Unassigned” and clears all customization. (A confirmation screen requires you to press **ENTER** first.)
  - **EDIT NAME** allows you to rename the layout (see [“Naming Layouts” on p. 24](#)).
  - **COPY LAYOUT** and **PASTE LAYOUT** provide a means to replicate a layout to a new location.
- ▶ Select any layout and press **ENTER** or the **EDIT LAYOUT** button (push-knob B) to open that layout for deeper editing.



**Number 9...** As you review or edit layouts, you may notice “Layout 9” in the list.

Layout 9 is in fact the **Master Layout Menu** used to access other layouts ([see p. 13](#)).

Do not edit this layout unless you understand what it is, what you’re changing, and how it works.

If you modify the Master Layout Menu – intentionally or otherwise – you can easily reset it to factory default settings without resetting anything else. Just use the **“RESET LAYOUT”** button on the **Edit Layout** page ([see p. 22](#)). Unlike all other layouts, #9 reverts to factory settings instead of being completely cleared.

As you get deeper in to the FC, you may find the ability to modify the MLM quite useful, with options like “Layout Link” or the ability to add functions to empty switches. See [“The Footswitch Functions Guide”](#) for more on layout link.

# EDIT A LAYOUT

Select any layout on the **Layouts** page ([see p. 22](#)) and press **EDIT LAYOUT** or **ENTER** to open the selected layout for deeper editing.

The **Edit Layout** view has two pages: one for the **Tap** function and one for the **Hold** function. Each shows the **Category** and the **Function** for all 12 switches, plus values for the first two parameters of the current function.

- ▶ Use the A, B, C, D, and E knobs, or the **NAV** buttons and **VALUE** knob to make changes.


*Notice the Tap and Hold pages*

Edit Layout 1: PRESETS				
	CATEGORY	FUNCTION	VALUE 1	VALUE 2
1 Tap	Preset	Select in Bank	1	--
2 Tap	Preset	Select in Bank	2	--
3 Tap	Preset	Select in Bank	3	--
4 Tap	Unassigned	--	--	--
5 Tap	Unassigned	--	--	--
6 Tap	Unassigned	--	--	--
7 Tap	Unassigned	--	--	--
8 Tap	Unassigned	--	--	--
9 Tap	Unassigned	--	--	--
10 Tap	Unassigned	--	--	--
11 Tap	Unassigned	--	--	--
12 Tap	Unassigned	--	--	--

⌂ Nav
Category
Function
Value 1
Value 1

RESET LAYOUT
EDIT SWITCH
RESET SWITCH
COPY SWITCH
PASTE SWITCH

- ▶ The push-knobs offer additional functions:
  - **RESET LAYOUT** sets all switches in the current layout to “Unassigned” and clears all customization. (A confirmation screen requires you to press **ENTER** first.)
  - **EDIT SWITCH** opens a single switch for deeper editing.
  - **COPY LAYOUT** and **PASTE LAYOUT** provide a means to replicate a layout to a new location.
- ▶ Select any switch and press **ENTER** or the **EDIT SWITCH** button (push-knob B) to open that switch for deeper editing.

 See [Section 5: Footswitch Functions](#) for information on all categories, functions, and parameters.

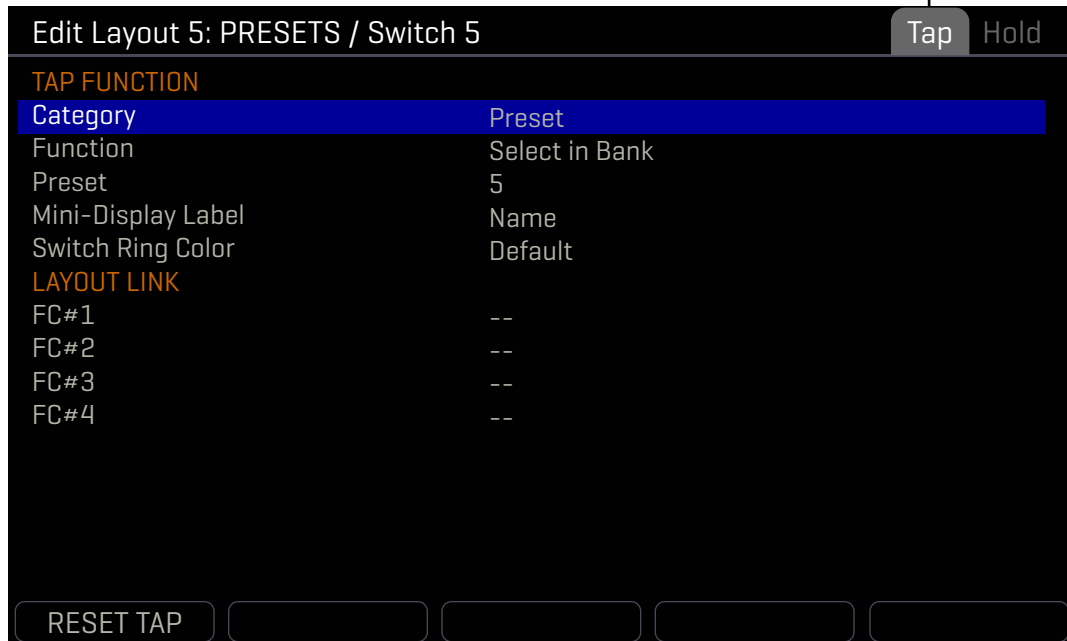
# EDIT A SWITCH

Select any switch on the **Edit Layout** page ([see p. 22](#)) and press **EDIT SWITCH** or **ENTER** to open the selected switch for deeper editing.

The **Edit Switch** view has two pages: one for its **Tap** function and one for its **Hold** function. Each page shows the current **Category** and the **Function** for the switch, plus any and all parameters for the current function.

- ▶ Use the **A, B, C, D,** and **E** knobs or the **NAV** buttons and **VALUE** wheel to make changes.
- ▶ On the **Tap** page, you can also change the **Switch Ring Color** for an individual switch, overriding the usual default Category color.
- ▶ You can also select from different automatic “labels” for the Mini-Display, or even enter custom text. Details on the various label options are provided throughout [Section 5: Footswitch Functions](#).

*Notice the Tap and Hold pages*



- ▶ The **LAYOUT LINK** section allows the Tap or Hold function of the switch to ALSO change the Layout on up to four connected FC units. See [“The Footswitch Functions Guide”](#) for more.
- ▶ The RESET button (Push-knob **A**) clears the function and all customization from the current page. (A confirmation screen requires you to press **ENTER** first.)



See [Section 5: Footswitch Functions](#) for information on all categories, functions, and parameters.

# NAMING LAYOUTS

Layout Names appear in the Master Layout Menu and can also appear on dedicated Layout footswitches. Changing the name of any layout is simple with the same interface used to name presets and scenes.

### NAME A LAYOUT:

- ▶ On the Axe-Fx III, open the “**Layouts**” page of the **FC Controllers** menu under **SETUP**.
- ▶ Use the **A** knob or **NAV** buttons to select the desired layout.
- ▶ Push the **EDIT NAME** button (push-knob **C**).
- ▶ Enter the desired name, up to ten characters:
  - Turn the **B** knob or use **NAV** buttons to move the cursor.
  - The **C** knob selects upper case letters.
  - The **D** knob selects lower case letters.
  - The **E** knob selects numbers.
  - The **VALUE** knob selects ALL characters, including symbols.
  - Press **D** or **E** for INSERT and DELETE functions.
  - Press **ENTER** to commit the name or **EXIT** to cancel.

 Reminder: All changes in the **FC Controllers** menu take effect immediately with no need to store.

# STARTUP LAYOUTS

Each connected FC Controller has its own default layout which loads automatically when you power on. You can change the default layout as follows.

### SET DEFAULT LAYOUTS:

- ▶ On the Axe-Fx III, open the “**Devices**” page of the **FC Controllers** menu under **SETUP**.
- ▶ Use the **C** knob or **NAV** buttons and **VALUE** wheel to set the desired default layout.
- ▶ You can also manually change the current layout on any unit using this page.

The Devices page also allows you to set up **Mirroring** ([see p. 7](#)).

---

# 5 FOOTSWITCH FUNCTIONS

## **THE FRACTAL AUDIO FOOTSWITCH FUNCTIONS GUIDE**

The FC-6, FC-12, and FM3 all use a shared system of Layouts and Footswitches.

Footswitch Functions are now detailed in a separate manual, the **Fractal Audio Footswitch Functions Guide**.

Find this guide at <https://www.fractalaudio.com/fas-ffg>



The Footswitch Functions Guide

# 6 TRANSMITTING MIDI

The Axe-Fx III can transmit MIDI in several different ways, detailed below. For an overview of connecting to other MIDI equipment, see [“MIDI Connections” on p. 12.](#)

## SEND MIDI PC

The simplest MIDI capability of the Axe-Fx III is transmitting a single MIDI program change message (“PC”) each time a new Preset is loaded—whether via the front panel, using an FC Footswitch, or in any other way. To enable this, open the **SETUP | MIDI/Remote** menu and page to the **“General”** tab. Set **Send MIDI PC** to the desired MIDI channel.

## THE SCENE MIDI BLOCK

A more sophisticated MIDI tool is the **Scene MIDI Block**. Once you place this block on the grid, it transmits MIDI messages automatically whenever a new scene is loaded—whether via the front panel, with an FC footswitch, or by any other means. The Scene MIDI block can transmit up to eight total custom PC or CC messages. Remember that a “default scene” loads automatically when you select a new preset, so any FC footswitch that selects a new Preset or a new Scene can also cause the Axe-Fx III to send a burst of MIDI messages. See the Axe-Fx III Owner’s Manual for more on the Scene MIDI Block.

## CONTROL SWITCH MIDI

See [“The Footswitch Functions Guide”](#) for details on the Control Switch function and how it can be used to send MIDI from the Axe-Fx III or FM3.

# 7 THE CONFIG MENU

NOTE: This section covers the Config page of the FC Controllers menu for the Axe-Fx III. Please see the FM3 Owner's Manual for details on configuring that product.

☞ Reminder: All changes in the **FC Controllers** menu take effect immediately with no need to store.

## FC CONTROLLERS: CONFIG PAGE

PARAMETER	Description
<b>Press &amp; Hold Timeout</b> 0.25–2.00 seconds	This sets the time limit before a Hold function is fired, beginning from the moment the switch is depressed. When a Hold function is assigned, a Tap function fires if the switch is released before the press and hold timeout elapses. See illustration, <a href="#">p. 13</a> .
<b>Master Layout Menu "Switch Combo"</b> ENABLED/DISABLED	In its default state, the <b>Master Layout Menu</b> (aka "MLM", aka "Layout 9") provides access to the other eight layouts ( <a href="#">see p. 13</a> ). The standard way to load the MLM is to perform a special "switch combo" step where you press the lower right switch with your heel, then, while still holding it, press the upper right switch with your toe. This combination can be <i>disabled</i> , leaving you to navigate the FC without the MLM, or perhaps to use a dedicated footswitch to display it. See the <b>Layout: Master Layout Menu</b> function in " <a href="#">The Footswitch Functions Guide</a> " for more.
<b>Per-Preset Switch Overrides</b> ENABLED/DISABLED	The FC allows any Axe-Fx III preset to <b>override</b> the function of any FC footswitch in any layout. This offers extreme flexibility, making it possible to handle exceptions easily in an otherwise global system. This option allows you to DISABLE Per-Preset overrides so only the global switch functions appear. See " <a href="#">The Footswitch Functions Guide</a> " for more on <b>Per-Preset Overrides</b> .
<b>Bank Size</b> 1–12	The <b>Preset: ...Bank</b> footswitch functions automatically map presets across special footswitches in your layouts. This makes presets available in dynamic groups as you step through "Banks". The FC-6 defaults to 4 presets per bank. The FC-12 defaults to 10 and the FM3 defaults to 3. The Bank Size should correspond directly to the number of " <b>Preset: ...Bank</b> " switches used.  See " <a href="#">The Footswitch Functions Guide</a> " for more on this subject.
<b>Preset Number/ Scene Number in Main Display</b> ON/OFF	The main display of the FC shows both Preset number and name, and Scene number and name. This option allows you to individually hide these numbers, so a greater number of characters can be dedicated to the names.
<b>Ring Intensity (Bright, Dim)</b> 25–100%, 1–50%,	Each FC footswitch has its own segmented LED ring. The rings change color to show switch function, and change between two brightness levels (and "off") to show switch states. These parameters allow you to adjust the intensity of both dim and bright ring states.
<b>Main LCD Notification Hold</b>	The FC normally displays Preset and Scene names. It sometimes changes, however, to show other status messages (such as when you toggle an effect on or off). This parameter sets how long these alternate messages remain on the screen before the preset/scene display returns.

## 7 THE CONFIG MENU

PARAMETER	Description
<b>Hold Function Execute Mode</b>	Every footswitch on the FC can have both a tap and a hold function (as detailed in <a href="#">“Tap &amp; Hold Functions” on p. 14</a> ). Changing this setting from its default value of “TIMEOUT” to “SWITCH UP” allows you to modify the normal switch behavior so that the Hold function only fires when the switch is released. In this mode, as long as you continue holding the switch, nothing happens. Then, at the precise moment you release the switch, the hold function is executed.
<b>FC6/FC12 Compatibility Mode</b>	This remaps the default switch flow. See page <a href="#">“Switch Flow” on the FC-12 and FC-6” on p. 20</a> for details.
<b>Control Switch Link</b>	These six parameters can be used to link two or more Control Switches in a mutually exclusive group. The single exclusive group is global and affects all instances of the designated Control Switches across all layouts. To join any Control Switch to the group, set its value here to “Exclusive”.  See <a href="#">“The Footswitch Functions Guide”</a> for more on Control Switches.



# 8 ADDITIONAL TOPICS



## FIRMWARE


Features and fixes for the FC controller are built right in to firmware updates for the Axe-Fx/FM3. Such updates might come at any time, extending the tradition of continual improvement which has become a hallmark of Fractal Audio Systems.

The FC does also have its own internal firmware, but this type of update will be uncommon. The current internal firmware version for each connected FC Controller is shown under **Setup | FC Controllers** on the “Devices” page.

## BACKUPS

Backup and restore operations for the FC are handled via the Axe-Fx III or FM3 and Fractal-Bot.

When you backup or restore the Axe-Fx III or FM3 “System” using Fractal-Bot, all settings, layouts, and customizations for the FC are included. See your Owner’s Manual for details, or let Fractal-Bot guide you with its built-in instructions. Download and install **Fractal-Bot** from <https://www.fractalaudio.com/fractal-bot/>

 **IMPORTANT!** Performing “Reset System Parameters” on the Axe-Fx III or FM3 will erase ALL stored settings for any FC Controllers or onboard switches. If this happens, you will need to re-load the Factory Default Layouts & Settings or restore a backup of your System file.

## AXE-EDIT/FM3-EDIT

Axe-Edit and FM3 edit include a full set of tools for editing an FC Controller or onboard footswitches. Find these programs for download at:

<https://www.fractalaudio.com/axe-edit/>

<https://www.fractalaudio.com/fm3-edit/>

## FC-6: SHORT TUTORIAL

For the FC-12 Tutorial [see p. 32](#).

### A CLOSER LOOK AT LAYOUTS 7 & 8

The following tutorial will be easier to follow if you have reviewed the previous sections of this manual. At a minimum, see [p. 13](#) and [p. 16](#).

Factory default Layouts 7 and 8 were created as examples of how **Layouts** and **Functions** can work to control the Axe-Fx III during a live performance.

**Layout 7 (“PERFORM 1”)** is intended as an easy way to select presets and scenes on the FC-6. Two switches (green rings) allow you to step one-by-one—up or down—through the list of presets. Three switches (Red rings) load scenes 1 through 3 for the current preset. Scene footswitches are set to show the “Destination”, which is to say, the name of the Scene which will be loaded if you activate that switch.

The top center switch loads Layout 8 and has the custom label “<EFFECTS>”.

Layout 7 has no “Hold” functions, but should you add your own, the Hold function of the lower right switch is set to “Reveal Hold”, which shows the Hold functions of *other* switches in the Mini-Displays.

**Layout 8 (“PERFORM 2”)** contains 4 classic “Instant Access” switches set up as Drive 1, Delay 1, Reverb 1, and Chorus 1. All of these except the Reverb 1 switch have their Hold function set to toggle between Channels A and B. (This emulates the classic “Press and Hold for XY” found on some of our other products.) The Hold function on the Reverb switch (lower right) is set to “Reveal Hold”, as on layout 7.

The upper right switch is Tap Tempo, with a Hold function to access the Tuner.

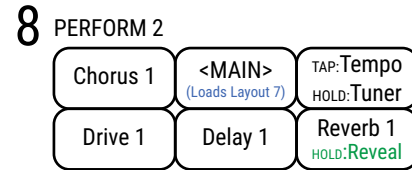
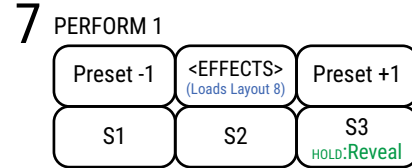
The top center switch returns to Layout 7 and has the custom label “<MAIN>”.

### TRY THE LAYOUTS

To begin, let’s load Layout 7 on your FC Controller and try it out:

- ▶ Perform the “Master Layout Menu Switch Combination” as illustrated on [p. 13](#). This loads the Master Layout Menu, with footswitches for layouts 1 through 6 (Presets, Scenes, et al.).
- ▶ Without leaving the Master Layout menu, perform the special MLM Switch Combo AGAIN to change to the second page of the Master Layout Menu—with switches to access the **Perform 1** and **Perform 2** layouts.
- ▶ Step on the lower left switch for **PERFORM 1** to load this layout on the FC.

Play with the demo layouts a bit before continuing (next page).



**FC-6 Performance Layout Tutorial (Continued)****TRY EZ EDIT**

Let's use EZ edit to modify one of the switches on Layout 8 ("PERFORM 2").

1. On the Axe-Fx III, press **HOME** and enter the **Setup** menu (push knob **E**).
2. Use the **NAV** knob (**A**) or buttons to select the **FC Controllers** menu and press **ENTER**.
3. If it isn't already shown, use the **PAGE** buttons to select the "**EZ**" tab.
4. Tap any switch on the FC. At the top of the screen, a small image of the FC-6 shows which switch you tapped. A text message to the left of the image indicates that we are using "FC#1 of 1". The message also shows the unit type (FC-6 in this case).
5. You should be on **Layout 8: PERFORM 2**. If not, use the **Layout** parameter at the top of EZ page to load it now.
6. Let's change the Chorus switch to control the Phaser instead. Tap the switch now on the FC-6.
7. Notice the current settings under **TAP FUNCTION**:
  - Category: **Effect**
  - Function: **Bypass**
  - Effect: **Chorus 1**
8. Navigate to the "**Effect**" parameter and use the **C** or **VALUE** knob to change "Chorus 1" to "Phaser 1". You never need to save changes in the FC Controllers menu; they take effect immediately.
9. **We're not finished yet!** The Hold function of this switch changes the effect Channel. Let's also make sure that it targets "Phaser 1". Nav down and notice the current settings under **HOLD FUNCTION**:
  - Category: **Effect**
  - Function: **Chan Toggle**
  - Effect: **Chorus 1**
  - Primary Channel: **A**
  - Secondary Channel: **B**
10. Navigate to the "**Effect**" parameter and use the **C** or **VALUE** knob to change "Chorus 1" to "Phaser 1".
11. Now let's test the modified switch. Remember: to prevent mishaps and accidental navigation, the switches on the FC don't work while the **EZ** page is on screen. Press **EXIT** to leave the **FC Controllers** menu. You never need to save changes in the FC Controllers menu; they take effect immediately.
12. Select factory Preset 023 "**Friedman BE-100**" which contains a Phaser block dialed in for channels A and B. Tap the new Phase 1 footswitch and the effect will be engaged or bypassed. Hold the switch and Phaser 1 will toggle from Channel A to B or vice versa.

***This concludes the short tutorial. You can use what you've learned here to modify any switch in any layout to perform any function.***

# FC-12: SHORT TUTORIAL

For the FC-6 Tutorial [see p. 30](#).

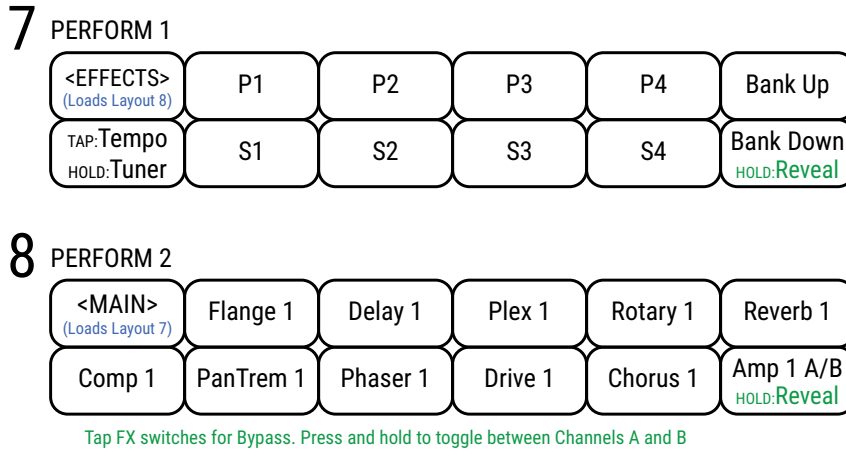
The following tutorial will be easier to follow if you have reviewed the previous sections of this manual. At a minimum, see [“The Master Layout Menu” on p. 13](#) and [“Factory Default Layouts” on p. 16](#).



**NOTE:** FC-12 layout 7 (PERFORM 1) requires the the global FC **“Bank Size”** parameter to be set to **“4”**.

Find this parameter under **SETUP: FC Controllers** on the **Config Page**.

FC-12 layout 1 (PRESETS) requires a bank size of **“10”** – so you’ll need to decide which setting you prefer.



## A CLOSER LOOK

Factory default Layouts 7 and 8 were created as examples of how **Layouts** and **Functions** can work to control the Axe-Fx III during a live performance.

**Layout 7 (“PERFORM 1”)** is intended to provide an easy way to select presets and scenes on the FC-12. Four switches in the upper row (green rings) allow you to select presets. Four switches in the lower (red rings) load scenes 1 through 4 for the current preset. Both Preset and Scene footswitches are set to show the “Destination”, which is to say, the name of the Preset or Scene which will be loaded when the switch is activated.

The two right-most switches step to the next or previous group of four presets.

(We didn’t use Bank Switches because “LAYOUT 1: PRESETS” requires a bank size of 10, but we DID set the LED ring colors to look like a Bank select switches.)

The top left switch switches to Layout 8 and has the custom label “<EFFECTS>”.

The lower left switch is Tap Tempo, with a Hold function to access the Tuner.

The Hold function of the lower right switch is set to “Reveal Hold”, which shows the Hold functions of *other* switches in this layout.

**Layout 8 (“PERFORM 2”)** contains 10 classic “Instant Access” switches set up as Compressor 1, Pan/Tremolo 1, Phaser 1, Drive 1, Chorus 1, Flanger 1, Delay 1, Plex Delay 1, Rotary 1, and Reverb 1. All of these have their Hold function set to toggle between Channels A and B. (This emulates the classic “Press and Hold for XY” found on some of our other products.)

The lower right switch toggles Amp 1 between Channels A and B. The press and Hold function of this switch is set to “Reveal Hold”, as on layout 7.

The upper left switch returns to Layout 7 and has the custom label “<MAIN>”.

***Tutorial continues on next page.***

## **TRY THE LAYOUTS**

To begin, let's load **Layout 7: Perform 1** and try it out:

- ▶ Perform the "Master Layout Menu Switch Combination" as illustrated on [p. 13](#). This shows the Master Layout Menu, with switches for layouts 1 through 8 (Presets, Scenes, et al).
- ▶ Step on the switch for **PERFORM 1** to load this layout on the FC.

Play with the layouts a bit before continuing. Factory preset **012: USA Mk IV** works well because it has four Scenes and contains almost all of the effects shown on the FC.

## **TRY EZ EDIT**

Let's use EZ edit to modify one of the switches on Layout 8 ("PERFORM 2"). Admittedly, the FC-12 has so many switches that it is a bit of a stretch to "improve" this layout, so we'll do something merely instructional instead: let's change the "Plex Delay" switch to control the "Multitap Delay" instead.

1. On the Axe-Fx III, press **HOME** and enter the **Setup** menu (push knob **E**).
2. Use the **NAV** knob (**A**) or buttons to select the **FC Controllers** menu and press **ENTER**.
3. If it isn't already shown, use the **PAGE** buttons to select the "**EZ**" tab.
4. Tap any switch on the FC. At the top of the screen, a small image of the FC-12 will confirm which switch you tapped. A text message to the left of the image indicates that we are using "FC#1 of 1". The message also shows the unit type (FC-12 in this case).
5. You should be on **Layout 8: PERFORM 2**. If not, use the **Layout** parameter at the top of EZ page to load it now.
6. Tap the Plex switch on the FC-12.
7. Notice the current settings under **TAP FUNCTION**:
  - Category: **Effect**
  - Function: **Bypass**
  - Effect: **Plex 1**
8. Navigate to the "**Effect**" parameter and use the **C** or **VALUE** knob to change "**Plex 1**" to "**MultDly 1**". Remember, there is no need to save changes in the FC Controllers menu; they take effect immediately.
9. **We're not finished yet!** The Hold function of this switch changes the effect Channel. Let's also make sure that it targets "Multitap Delay 1". Nav down and notice the current settings under **HOLD FUNCTION**:
  - Category: **Effect**
  - Function: **Chan Toggle**
  - Effect: **Plex 1**
  - Primary Channel: **A**
  - Secondary Channel: **B**
10. Navigate to the "**Effect**" parameter and use the **C** or **VALUE** knob to change "**Plex 1**" to "**MultDly 1**".
11. Now let's test the modified switch. Remember: to prevent mishaps and accidental navigation, the switches on the FC don't work while the EZ page is on screen. Press EXIT to leave the FC Controllers menu. You never need to save changes in the FC Controllers menu; they take effect immediately.
12. Select factory Preset 023 "**Friedman BE-100**" which has a Multitap Delay block you can engage and bypass. (You may wish to edit the preset so that channel A is different from Channel B)

*This concludes the short tutorial. You can use what you've learned here to modify any switch in any layout to perform any function.*

# STAND-IN SWITCHES

This subject is also covered in the FM3 Owner's Manual.

As detailed elsewhere in this manual, there are several easy ways to use external switches.

- You can assign them directly as a modifier source.
- You can assign them to an External Controller for use indirectly as a modifier source
- You can assign them in the MIDI/Remote menu to global functions like "Tap Tempo" or "Looper Record"

Despite these nice options, however, the capabilities of external switches begin to seem very limited when you compare them to all that FC or FM3 switches can do. For instance, an external switch can't have separate tap and hold functions, or, for instance, change a Layout, or select a Bank.

To make external switches more powerful, we created a system called **Stand-In Switches**. A Stand-In is an external switch set up to operate as a **remote control** for a switch in a normal layout. For example, you might have an external switch stand in for "Layout 8: Switch 4" which is set up to bypass/engage Drive 1 block on Tap, and Toggle Drive 1 Channels A/B on Hold.

Be aware that the stand-in is just a pointer. If you change the switch it is remote controlling, its function will change too. The hidden power of Stand-In switches lies in the fact that a layout does not need to be loaded for its switches to be triggered by a Stand-In.

## TO CREATE A STAND-IN SWITCH

These instructions assume that you have an external switch connected and configured correctly. For an FC Controller, see ["External Switches" on p. 9](#). For an FM3, see your **Owner's Manual**.

To set up a Stand-In Switch:

1. From the **HOME** page, open **SETUP: FC Controllers**
2. Page to the **Stand-In Switches** tab.
3. Nav up or down to the switch you want to set up. For example, "FM3 SW1 Tip" or "FC1 SW 1"
4. Use B and C or Nav and Value knobs to assign the desired **Layout** and **Switch** you want the selected switch to serve as a Stand In for.
5. Set up any other Stand-In Switches and press **HOME** when finished.
6. Test your switch.



The unused switches of the Master Layout Menu provide a great place to "hide" the functions for several Stand-In Switches.

## 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>

The 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>.

# SPECIFICATIONS

## **FASLINK™ II INPUT PORT**

Connector: XLR Male type  
Compatibility: Axe-Fx III only

## **FASLINK™ II THRU PORT**

Connector: XLR Female type  
Compatibility: Additional FC-6 or FC-12 only

## **EXTERNAL SWITCH INTERFACE**

External Switch Inputs: 2  
Connectors: 2 x ¼" TRS phone jacks (2 switches per connector)  
Format: Compatible with Toggle or Momentary switches

## **EXPRESSION PEDAL INTERFACE**

Expression Pedal Inputs: 4  
Connectors: ¼" TRS phone jacks (1 expression pedal per connector)  
Compatibility: Expression type (not Volume pedals), 10K–100K recommended max resistance

## **MECHANICAL/ELECTRICAL**

Chassis: Powder-coated 16-gauge steel  
Main LCD: 2×20 dot matrix transfective  
Mini LCDs: 128×32 graphical  
FC-12 Dimensions: 20.2" x 9.2" x 3.5" (512mm x 233mm x 88mm). Weight: 11 lbs (5 kg)  
FC-6 Dimensions: 11.2" x 9.2" x 3.5" (283mm x 233mm x 88mm). Weight: 6.7 lbs (3 kg)  
AC Adapter Barrel: 2.5 mm, negative center  
Input Voltage: 9–12V DC, 1000ma (Use AC adapter specific to region where the unit was purchased)  
Power Consumption: ≤12 W

## **ENVIRONMENTAL**

Operating Temperature: 32 to 122°F (0 to 50°C)  
Storage Temperature: -22 to 167°F (-30 to 70°C)  
Humidity Max.: 0% non-condensing

*(Specifications subject to change without notice)*



# WARRANTY

Fractal Audio Systems warrants that your new Fractal Audio Systems product shall be free of defects in materials and workmanship for a period of one (1) year from the original date of purchase.

During the warranty period, Fractal Audio Systems shall, at its sole option, either repair or replace any product that proves to be defective upon inspection by Fractal Audio Systems.

Fractal Audio Systems reserves the right to update any unit returned for repair and to change or improve the design of the product at any time without notice. Fractal Audio Systems reserves the right to use reconditioned parts and assemblies as warranty replacements for authorized repairs. This warranty is extended to the original retail purchaser for units purchased directly from Fractal Audio Systems or one of its authorized distributors or resellers.

This is your sole warranty. Fractal Audio Systems does not authorize any third party, including any dealer or sales representative, to assume any liability on behalf of Fractal Audio Systems or to make any warranty for Fractal Audio Systems. Fractal Audio Systems may, at its option, require proof of original purchase date in the form of a dated copy of original authorized dealer's invoice or sales receipt. Service and repairs of Fractal Audio Systems products are to be performed only at the Fractal Audio Systems factory or a Fractal Audio Systems authorized service center. Fractal Audio Systems may require advanced authorization of repairs to authorized service centers. Unauthorized service, repair or modification will void this warranty.

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