

## Power Requirements



75mA@9.6VDC  
Use Boss PSA Adapter Only  
5.5mm/2.1mm Barrel Connector

## MIDI Implementation

<b>Model &amp; F/W:</b>	CFX4 Version 1 Revision 4
<b>MIDI Channel: (Received)</b>	Default: 16 <sup>1</sup> Changed: 1 - 16 <sup>2</sup>
<b>Control Change: (Received)</b>	80 - 83 <sup>3</sup> C1 - C4 Latching 104 - 107 <sup>3</sup> C1 - C4 Momentary ] cc1
	84 - 87 C1 - C4 Latching 108 - 111 C1 - C4 Momentary ] cc2
	88 - 91 C1 - C4 Latching 112 - 115 C1 - C4 Momentary ] cc3
	92 - 95 C1 - C4 Latching 116 - 119 C1 - C4 Momentary ] cc4
	Control Value 0 = Off Control Value 127 = On
<b>Program Change: (Received)</b>	1 - 128 Selects memory locations 1 to 128
<b>Notes:</b>	<ol style="list-style-type: none"><li>1. Fixed for Control Changes.</li><li>2. User selectable for Program Changes, stored in EEPROM.</li><li>3. The CFX4 is shipped from the factory in Control Change CC1 operating mode.</li><li>4. For DMC Ground Control users: CC1 = GCX#1 Loops 1 - 4 CC2 = GCX#1 Loops 5 - 8 CC3 = GCX#2 Loops 1 - 4 CC4 = GCX#2 Loops 5 - 8</li></ol>

## Warranty

This product is warranted against failures due to defective parts or faulty workmanship for a period of one year after delivery to the original owner. During this one year period, Axess Electronics will make any necessary repairs without charge for parts and labor. However, shipping charges to and from the repair location must be paid by the owner.

This warranty applies only to the original owner and is not transferable.

This warranty does not cover damage to the product as a result from accident or misuse.

This warranty will be canceled at the sole discretion of Axess Electronics if the product has:

1. Any signs of tampering, unauthorized service, or modifications.
2. Any damage resulting from physical abuse or failure to follow the operating instructions.

Axess Electronics' liability to the owner and under this warranty is limited only to the repair or replacement of the defective product. Call or write to Axess Electronics prior to shipping the product for repair.

Axess Electronics reserves the right to make any changes and/or improvements to the design of this product without any obligation to include those changes in any previously manufactured units.

## How To Reach Axess Electronics

Mail: Axess Electronics  
251 Queen Street South #278  
Mississauga, Ontario L5M-1L7  
Canada

Tel.:

E-mail: [email@axess-electronics.com](mailto:email@axess-electronics.com)

Website: <http://www.axess-electronics.com>

# CFX4

## Control Function Switcher

- The **CFX4 Control Function Switcher** can channel switch guitar amplifiers and perform other footswitchable functions via MIDI.
- Four isolated relays (prevents ground loop hum/noise) can be individually configured for latched or momentary type switching.
- Four LEDs indicate the status of each control function.
- Can be used with any MIDI footcontroller capable of sending Control Change or Program Change messages.
- An infinite number of CFX4's can be used simultaneously or added to existing rigs with other switchers.
- Powered by a 9VDC Adapter (like those from Boss) with a 5.5mm/2.1mm barrel connector.
- Housed in a compact (4.80" x 3.75" x 1.40") and rugged .064" thick aluminum enclosure for years of reliable use and performance.
- Brushed finish with black anodize coating and laser-engraved printing.

## Connections

- POWER:** Accepts power from an external AC Adapter with a 5.5mm/2.1mm barrel connector. See *Power Requirements* for more information.
- MIDI IN:** 7pin DIN connector that receives MIDI information from an external source (such as a MIDI footcontroller) which transmits MIDI commands.
- MIDI THRU:** 7pin DIN connector that passes on the MIDI information which is received at the **MIDI IN** jack to other MIDI devices.
- CUSTOM:** Multi-pin DIN connector that is used to provide remote switching of an amplifier's functions via an Axess Electronics custom amplifier-specific cable.
- CTL1 - CTL4:** Standard 1/4" mono jacks (isolated to prevent ground loop hum/noise) that provide normally open latched or momentary type switching functions to control amplifiers and/or effects that have footswitchable functions.

## Overview

The CFX4 has been designed to operate in one of two modes. Program Change mode allows the CFX4 to be used with MIDI footcontrollers that can only transmit MIDI Program Change messages or have run out of Control Change messages... Control Change mode is geared towards MIDI footcontrollers that have instant access switches and are capable of transmitting MIDI Control Change messages. The CFX4 has four (4) Control Change modes, CC1 - CC4.

When operating in Program Change mode, the CFX4 will respond to MIDI Program Change messages on the user selected MIDI Channel. The control functions will either be latched or momentary, depending on the *Edit Control Configuration*. All MIDI Control Change messages will be ignored.

When operating in one of the four Control Change modes, the CFX4 will respond to MIDI Control Change messages on the default MIDI Channel. The MIDI Program Change Channel and Control Configuration will be cleared and disabled, all Program Change messages will be ignored.

## Basic Operation

Connect a MIDI footcontroller and the device(s) to be switched/controlled to the CFX4 as described in the *Connections* section.

Apply power to the CFX4 first, then to the other device(s). Use the MIDI footcontroller to access the four control functions... When done, remove power from the other devices first, then from the CFX4.

To edit a preset in Program Change mode, select the preset to edit using the MIDI footcontroller. Press and/or hold the **EDIT** switch until the desired combination of control functions (on/off) is selected. The preset is automatically stored in the CFX4's EEPROM memory. As a safety feature, only the LEDs will change when holding the **EDIT** switch down. The control functions will switch after the **EDIT** switch has been released.

**!!ATTENTION!!**

*ON POWER-UP, ALL CONTROL FUNCTIONS ARE OFF.*

*ON POWER-UP, IN PROGRAM CHANGE MODE, THE EDIT SWITCH HAS NO EFFECT UNTIL A PRESET IS SELECTED USING THE MIDI FOOTCONTROLLER.*

*THE EDIT SWITCH HAS NO EFFECT WHEN IN ONE OF THE FOUR CONTROL CHANGE MODES.*

## Edit Program Change Channel

This allows the selection of which MIDI Channel the CFX4 will receive MIDI Program Change messages on.

Power-off the CFX4. Press and hold the **EDIT** switch and apply power to the CFX4. Wait for all the LEDs to flash one time and release the **EDIT** switch. You are now in *Edit Program Change Channel*. Pressing the **EDIT** switch will allow you to scroll through the sixteen different MIDI Channels. To save your selection in the CFX4's EEPROM memory, simply power-off the CFX4.

CHANNEL	C4-LED	C3-LED	C2-LED	C1-LED
Channel #1	○	○	○	○
Channel #2	○	○	○	●
Channel #3	○	○	●	○
Channel #4	○	○	●	●
Channel #5	○	●	○	○
Channel #6	○	●	○	●
Channel #7	○	●	●	○
Channel #8	○	●	●	●

CHANNEL	C4-LED	C3-LED	C2-LED	C1-LED
Channel #9	●	○	○	○
Channel #10	●	○	○	●
Channel #11	●	○	●	○
Channel #12	●	○	●	●
Channel #13	●	●	○	○
Channel #14	●	●	○	●
Channel #15	●	●	●	○
Channel #16	●	●	●	●

## Edit Control Configuration

This allows the selection of which control functions are latched and momentary when in Program Change mode.

Power-off the CFX4. Press and hold the **EDIT** switch and apply power to the CFX4. Wait for all the LEDs to flash two times and release the **EDIT** switch. You are now in *Edit Control Configuration*. Pressing the **EDIT** switch will allow you to scroll through the different control function configurations. To save your selection in the CFX4's EEPROM memory, simply power-off the CFX4.

CONFIGURATION	C4-LED	C3-LED	C2-LED	C1-LED
C1/2/3/4 Latched	○	○	○	○
C1 Mom & C2/3/4 Lat	○	○	○	●
C1/2 Mom & C3/4 Lat	○	○	●	●
C1/2/3 Mom & C4 Lat	○	●	●	●
C1/2/3/4 Momentary	●	●	●	●

## Edit Operating Mode

This allows the selection of the CFX4's operating mode.

Power-off the CFX4. Press and hold the **EDIT** switch and apply power to the CFX4. Wait for all the LEDs to flash three times and release the **EDIT** switch. You are now in *Edit Operating Mode*. Pressing the **EDIT** switch will allow you to scroll through the different modes of operation. To save your selection in the CFX4's EEPROM memory, simply power-off the CFX4.

MODE	C4-LED	C3-LED	C2-LED	C1-LED
Program Change	○	○	○	○
Control Change CC1	○	○	○	●
Control Change CC2	○	○	●	○
Control Change CC3	○	●	○	○
Control Change CC4	●	○	○	○