

M-AUDIO

Axiom® DirectLink for Logic Pro User Guide

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Documentation Feedback

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Chapter 1: Introduction

This guide covers DirectLink, which automatically maps Axiom® controls to common functions in Logic Pro 9.1 and later. DirectLink offers two-way communication with Logic Pro, featuring two distinct modes of operation with a level of integration that makes Axiom feel like a "dedicated" hardware controller.

Once Logic Pro has been launched, DirectLink is activated in its default state which is Mixer Mode. In Mixer Mode, Axiom faders, buttons and knobs are mapped to Logic Pro mixer functions such as track and master channel volume, as well as the pan, track selection, mute, solo, and record arm, as explained in Chapter 3, "Axiom Controls with DirectLink."

Although Mixer mode provides effective control of the Logic Pro Mixer, Axiom DirectLink also gives you hands on control over any virtual instrument in your project. The first step towards controlling virtual instruments within your project is selecting a "target" track using the dedicated Track "<" and ">" buttons.

The target track determines which track Axiom will control. If there is a virtual instrument in the target track, pressing the Instrument button (Inst) instantly maps all Axiom controls to the most useful parameters. Each Logic instrument has a corresponding Axiom Instrument Map. Axiom Instrument Maps are available for download and installation at www.m-audio.com/drivers. Further information about Axiom Instrument Maps can be found in Chapter 4, "Instrument Mode."

Whenever DirectLink is switched to Instrument mode, the Instrument button will also illuminate to confirm that you are controlling an instrument. Pressing the Patch Up and Down buttons scrolls through patches to audition and select sounds in the targeted instrument. Pressing either of the Track buttons targets an adjacent track, allowing you to switch from one instrument to another.

Pressing the Instrument button a second time returns Axiom to Mixer mode. While in Instrument Mode, holding the Shift button and pressing the Instrument button opens the virtual instrument window. This lets you to see the on-screen controls update in real time as mapped Axiom controls are used. Holding down the Shift button then pressing Instrument button again, closes instrument windows.

Instrument Mode has no affect on the Axiom Transport buttons, and they will remain mapped to their counterparts in Logic Pro.

Although this introduction explains how DirectLink with Axiom can enhance your workflow, please take the time to read the rest of this User Guide. Combined with the Axiom User Guide, it will explain how to get the most out of your Axiom Keyboard in Logic Pro.

DirectLink Requirements

System Requirements

The latest system requirements can be found at www.m-audio.com.

Logic Pro Software

DirectLink requires Logic Pro version 9.1 or later. Earlier versions of Logic Pro do not support DirectLink. To learn more about upgrading your Logic Pro software, please visit http://www.apple.com.

Axiom Hardware

DirectLink requires that Axiom is connected to the host computer, and this guide assumes the process has already been completed. The installation and connection procedure, is covered in the Axiom User Guide.

 $oldsymbol{\Lambda}$ A list of qualified recording applications, along with current drivers, DirectLink installers and User Guides can be found at www.m-audio.com.

Chapter 2: Installation and Configuration

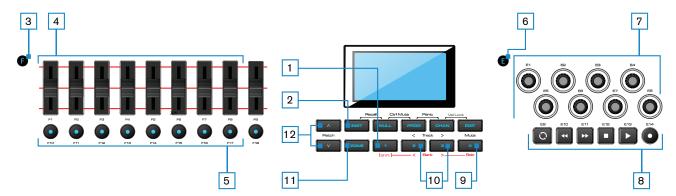
Before beginning the DirectLink installation, please make sure Axiom is connected to the host computer, and that Logic Pro is *not* running. The instructions below will indicate when Logic Pro should be launched.

To install DirectLink and configure Logic Pro:

- 1 Download the latest DirectLink installer for Logic Pro from www.m-audio.com/drivers.
- **2** Locate and double-click on the installer icon then follow the on-screen instructions.
- **3** Once the installation is complete, launch Logic Pro.
- **4** Navigate to the Logic Pro menu > Preferences > Control Surfaces > Setup.
- **5** Choose "New" and double-click "Axiom" (for Axiom 49 or 61) or "Axiom 25" as appropriate.
- 6 Close the Control Surfaces window.
- **7** Axiom will be in DirectLink Mode and ready to control Logic Pro.

Whenever Logic Pro is launched, DirectLink will activate automatically and map Axiom controls.

Chapter 3: Axiom Controls with DirectLink



This chapter provides an overview of how Axiom controls function when controlling qualified versions of Logic Pro via DirectLink. Where applicable, both Mixer and Instrument Mode will be covered.

1 Shift Button

This button is used to access alternate functions of the Faders, Encoder knobs and Instrument button, as well as the Mute and Track (< and >) buttons, as described later in this chapter.

Instrument Button (Inst)

DirectLink offers two different modes of operation as described below.

Mixer Mode

This is the default DirectLink mode, in which Axiom Faders, Encoder knobs, and Fader buttons are mapped to their corresponding Logic Pro mixer functions.

When a mapped Axiom control is used, its parameter assignment and numerical or positional value will appear on the LCD screen. After one second the screen will revert to the track name.

Pressing the Instrument button at any time switches Axiom controls to Instrument Mode.

Instrument Mode

Pressing the Instrument button (Inst) selects Instrument Mode. The LCD screen will momentarily display the name of the instrument being controlled, and then revert to the target track name. This maps Axiom Faders, Fader buttons, and Encoder knobs to instrument parameters within the target track in your Logic Pro project.



⚠ The target track determines the destination of MIDI notes and control data transmitted from your Axiom

When a mapped Axiom control is used, its parameter assignment and numerical or positional value will appear on the LCD screen. After one second the screen will revert to the track name.

Pressing the Instrument button again will return Axiom to Mixer Mode. While in Instrument Mode, holding down the Shift button and pressing the Instrument button will open and close the active instrument window.

Axiom Transport, Shift, Track select and Mute/Solo buttons are not affected by the Instrument button, and retain their assignments in both Mixer and Instrument Mode.

3 Group F Button

The Group F button is illuminated by default, indicating that all nine Axiom faders and fader buttons (F1–18) are in DirectLink mode. When this button is pressed, it is no longer lit, and the faders and buttons are released from their DirectLink assignments, and mapped according to the active Patch.

Pressing the Group F button again returns all controls to their DirectLink assignments. The button also illuminates confirming the group is in DirectLink Mode.

Faders

Mixer Mode (Default)

On Axiom 49 and 61, the first eight Faders (F1 – F8) control the track volume for the currently selected bank of eight tracks. The active bank (for example 1 – 8) is highlighted along the left edge of the Logic Pro mixer, as shown in the illustration.

The right-most Fader (F9) and the single Fader on Axiom 25 will map to the Master Fader of the Logic Pro project.

When an Axiom fader is moved, the current function or parameter assignment, and its value will appear on the LCD screen.

Instrument Mode

The faders map to parameters on the virtual instrument within the target track.

When an Axiom fader is moved, the current function or parameter assignment, and its value will appear on the LCD screen.

Moving an Axiom Fader while holding down the Shift button allows you to view or "peek" at its current parameter assignment and value.

1 Audio 1 2 Mario 2 3 West Audio 3 7 Audio 7 8 Hari Audio 8 11 Audio 11 12 Audio 12 13 Audio 13 15 Audio 15 16 Audio 16 Mixer Sample Editor

Fader Buttons

Mixer Mode (Default)

On Axiom 49 and 61, the first eight buttons (F10 – F17) map to the currently selected bank of eight tracks in Logic Pro, and by default each button targets its corresponding track when pressed.

Pressing the right-most button (F18) switches buttons F10 – F17 to Mute mode. The LCD screen will display "Mute," indicating the current mode of operation. Each button illuminates when pressed, and its corresponding track is muted.

Pressing button F18 again switches buttons F10 – F17 to Solo mode, and the LCD screen will display "Solo." Each button illuminates when pressed, and its corresponding track is soloed while all others are muted.

Pressing F18 another time switches buttons F10 – F17 to Record Arm mode, and the LCD screen will display "Arm." Each button illuminates when pressed, and its corresponding track is armed for recording.

Instrument Mode

Buttons F10 – F17 map to virtual instrument parameters within the target track.

When a mapped Axiom button is pressed, the current function or parameter assignment, and its value will appear on the LCD screen.

Fader button F18 will be lit while DirectLink is in Instrument mode. Pressing this button "flips" the faders and fader buttons back to Mixer mode, while the Encoders remain in Instrument mode. Pressing F18 a second time returns the faders and buttons to Instrument mode.

Group E Button

The Group E button is illuminated by default, indicating that all eight Axiom Encoder knobs (E1–E8) are in DirectLink mode. When this button is pressed, it is no longer lit, and the knobs are released from their DirectLink assignments, and mapped according to the current active preset Patch.

Pressing the Group E button again returns all controls to their DirectLink assignments. The button also illuminates confirming the group is in DirectLink Mode.

A Pressing the Group E button does not release the Axiom Transport buttons from DirectLink.

Encoder Knobs

Mixer Mode

On Axiom 49 and 61, the Encoder knobs (E1 – E8) control the Pan knobs in the Logic Pro Mixer.

On Axiom 25 these knobs control the track volume for the currently selected bank of eight tracks.

The LCD screen will display the current track name and Pan value whenever a knob is moved.

Instrument Mode

The Encoder knobs map to parameters on the virtual instrument within the target track.

The LCD screen will display the current function or parameter assignment, as well as the current value whenever a knob is moved.

Moving a control while holding down the Shift button allows you to view or "peek" at its current assignment and value.

8 Transport Buttons

In both Mixer and Instrument Modes, these buttons map to their corresponding buttons in Logic Pro and control the functions described below.



Rewind - Holding this button rewinds the Logic Pro transport until the button is released. Momentarily pressing this button rewinds the transport one bar at a time.



Fast Forward - Holding this button forwards the Logic Pro transport until the button is released. Momentarily pressing this button forwards the transport one bar at a time



Stop - This button stops playback or recording. Pressing this button twice skips to the beginning of the song, or the beginning of a looped section when Logic is set to play or record in Cycle mode (See "Loop Play" button below).



Play - This button starts playback or recording.



Record - This button controls the Record button in the Logic transport.



Loop Play - Pressing the Loop button switches the transport Cycle function on and off. This function lets you either playback the song or record multiple takes between the Loop Start and End points specified in the Logic Pro transport.

9 Mute Button

In both Mixer and Instrument mode the Mute button performs the following functions:

- By default, pressing this button mutes the target track in a Logic Pro project.
- Pressing this button while holding down the Shift button controls the Solo button for the Logic Protrack.

10 Track Buttons

In both Mixer and Instrument Mode these buttons select the target track or bank of 8 tracks within a Logic Pro project.

• **Track Selection** - The left Track button (<) targets the previous track in the project. For example, if Track 2 is currently targeted, pressing this button will target Track 1. The right Track button (>) targets the next track. For example, if Track 2 is currently targeted, pressing this button will target Track 3. The LCD screen will display the track name. If the target is an instrument track with a virtual instrument, it is armed for recording, and the instrument sound is heard when the keys are pressed. If Instrument Mode is active the controls will map to the instrument within the target track.

These buttons can also be used to target tracks outside the currently active bank of 8 tracks. For example, if track 8 is currently targeted and the > Track button is pressed, Track 9 will be targeted. Axiom Faders and their corresponding buttons will now control Tracks 9 – 16.

• **Bank Selection** - When the Shift button is held down the left Track button (<) selects the previous bank of 8 tracks. For example, if the bank of Tracks 9 – 16 is currently selected, pressing this button when Shift is held down will select the bank of Tracks 1 – 8. The right Track button (>) selects the next bank of 8 tracks. For example, if the bank of Tracks 9 – 16 is currently selected, pressing this button when Shift is held down will select the bank of Tracks 17 – 24.

11 Zone Button

This button is used for accessing the individual Zone buttons (1, 2, 3, and 4).

Zones are used to split or layer the keyboard. When the Zone button is active, Shift, Track and Mute buttons will not function in DirectLink Mode. Pressing the Zone button returns these buttons to DirectLink.



For more information, refer to Chapter 7, "Keyboard Zones" of the Axiom User Guide.

These buttons are used for selecting virtual instrument sound patches when an active instrument window is open or hidden.

Hiding an instrument window is not the same as closing it. Refer to the Logic User Manual for more information about hiding instrument or plug-in windows.

Chapter 4: Instrument Mode

Instrument Mode maps Axiom controls to numerous virtual instrument parameters within a targeted track in Logic Pro. This chapter provides an overview of how to setup and use DirectLink to control an instrument loaded into a track within a Logic Pro project.

Setting Up Instrument Mode

The following steps will guide you through setting up Instrument Mode. Please make sure Axiom is properly connected to your computer.

To Set Up Instrument Mode:

- 1 If needed, create an Instrument Track in the Logic Pro project. Please refer to the Logic Pro User Manual for more details.
- **2** Load a virtual instrument on to an instrument track.
- **3** Select the track using either the Fader buttons or the Track buttons.
- 4 Switch DirectLink to Instrument Mode by pressing the Instrument button (Inst). The button will illuminate, confirming that Axiom is in Instrument mode
- 5 Hold down the Shift button and press the Instrument button down to open and close the Instrument window.

Using Instrument Mode

Axiom Instrument Maps

Axiom Instrument Maps have been created for each of the Logic virtual instruments, which define the default mapping assignments for Axiom controls. The installer is available for download at www.m-audio.com/drivers and includes maps for all Logic instruments.

Once the maps have been installed, DirectLink will assign Axiom controls to parameters within an open Logic instrument as described in Appendix A, "DirectLink Control Assignments."



🌣 Please check the DirectLink web page periodically as maps for third party instruments will be released in the future.

Changing DirectLink Control Assignments

There is currently no way to change the parameter mappings for an Instrument in Logic itself. Logic does however have a powerful MIDI learn feature which enables you to define the parameter mappings for individual plug-ins outside of DirectLink as described below.

The following instructions provide an overview of the process. Refer to the Logic Pro 9 User Manual, Logic Pro Control Surfaces Support Guide and Logic Studio Instruments Guide for more information.

To reassign an Axiom control:

- 1 Disengage the control from DirectLink by pressing its corresponding Group button. Press the Group E button for an Encoder, or Group F button for a Fader or Fader button.
- 2 Press Command + K on your computer keyboard to open Controller Assignments window opens in Logic.
- **3** Click the Learn Mode button in the lower right of the window.
- 4 Move a control on the Instrument in Logic.
- **5** Move the Axiom control you are reassigning to issue the new mapping.

Your new Instrument mapping will be stored with The Axiom Control Surface in Logic. However, these mappings will be lost if you delete Axiom from Logic's Control Surface set-up dialog.

▲ In the future, you will need to use the same Axiom preset that was active when reassigning the control so that it always works as expected with that particular Logic instrument.

Controlling Virtual Instruments

Once an Instrument Track is targeted by Axiom and Instrument Mode is activated (See "Instrument Button (Inst)" on page 7), the instrument name will appear on the LCD screen. If the Track buttons (See "Track Buttons" on page 10) were used for targeting a track, it is also armed for recording, and notes are heard when the keys are pressed.

Logic Pro has an automated track name feature which names the track according to the current instrument sound patch. This LCD screen on Axiom will display this name, and in this instance the LCD will display a new track name when a new instrument sound patch is chosen.

it is possible to rename the track as described in the Logic Pro User guide.

Opening and Closing an Instrument Window

While DirectLink is in Instrument Mode, holding down the Shift button and pressing the Instrument button will open and close the window for the active instrument.

Instrument Preset Selection

Sound patches within virtual instruments are selected using the Axiom Patch buttons, when the instrument window is open or hidden.

Hiding an instrument window is not the same as closing it. Refer to the Logic User Manual for more information about hiding instrument or plug-in windows.

Adjusting Instrument Parameters

When a mapped Axiom control is moved its parameter assignment and numerical or positional value will appear on the LCD screen. After one second the screen will revert to the track name.

Axiom controls can be returned to Mixer Mode, at any time, by pressing the Instrument button.

Refer to Chapter 3, "Axiom Controls with DirectLink" for more information about Axiom control types and their Instrument Mode functions.

Appendix A: DirectLink Control Assignments

The following tables list the default DirectLink control assignments for each Logic instrument once the Logic Pro Instrument Maps have been installed.

EFM1

Encoder Knob	Parameter
E1	Mod Harmonic
E2	Modulator Wave
E3	FM
E4	FM Fixed Frequency Toggle
E5	FM Depth
E6	Carrier Harmonic
E7	LFO Rate
E8	LFO Rate

Fader	Parameter
F1	Volume Env Attack
F2	Volume Env Decay
F3	Volume Env Sustain
F4	Volume Env Decay
F4	Mod Env Attack
F6	Mod Env Decay
F7	Mod Env Sustain
F8	Mod Env Release
F9	Volume

Fader Buttons	Parameter
F10	n/a
F11	n/a
F12	n/a
F13	n/a
F14	n/a
F15	n/a
F16	n/a
F17	n/a
F18	n/a

ES E

Encoder Knob	Parameter
E1	Filter Frequency
E2	Filter Resonance
E3	AR Int
E4	Velo Filter
E5	Waveform
E6	Vib/PWM
E7	Speed
E8	Velo Volume

Fader	Parameter
F1	Attack
F2	Release
F3	n/a
F4	n/a
F4	n/a
F6	n/a
F7	n/a
F8	n/a
F9	Volume

Fader Buttons	Parameter
F10	Octave
F11	Chorus
F12	n/a
F13	n/a
F14	n/a
F15	n/a
F16	n/a
F17	n/a
F18	n/a

ES M

Encoder Knob	Parameter
E1	Filter Cutoff
E2	Filter Resonance
E3	Filter Decay
E4	Filter Intensity
E5	Mix
E6	Glide
E7	Volume Decay
E8	Overdrive

Fader	Parameter
F1	n/a
F2	n/a
F3	n/a
F4	n/a
F4	n/a
F6	n/a
F7	n/a
F8	n/a
F9	Volume

Fader Buttons	Parameter
F10	Octave
F11	n/a
F12	n/a
F13	n/a
F14	n/a
F15	n/a
F16	n/a
F17	n/a
F18	n/a

ES P

Encoder Knob	Parameter
E1	Filter Cutoff
E2	Filter Resonance
E3	Chorus
E4	Overdrive
E5	Vibrato/Wah
E6	Speed
E7	Velo Filter
E8	Velo Volume

Fader	Parameter
F1	Attack
F2	Decay
F3	Sustain
F4	Release
F4	Triangle
F6	Sawtooth
F7	Rectangle
F8	Noise
F9	Volume

Fader Buttons	Parameter
F10	Octave
F11	VCA Mode
F12	n/a
F13	n/a
F14	n/a
F15	n/a
F16	n/a
F17	n/a
F18	n/a

ES 1

Encoder Knob	Parameter
E1	Filter Frequency
E2	Filter Resonance
E3	Filter Drive
E4	Filter Mode
E5	Waveform
E6	Sub Osc Waveform
E7	LFO Waveform
E8	LFO Rate

Fader	Parameter
F1	Env Attack
F2	Env Decay
F3	Env Sustain
F4	Env Release
F4	Glide
F6	LFO Int 0
F7	Mod Env Int O
F8	Mod Env Form
F9	Volume

Fader Buttons	Parameter
F10	Octave
F11	Chorus
F12	VCA Mode
F13	n/a
F14	n/a
F15	n/a
F16	n/a
F17	n/a
F18	n/a

ES 2

Encoder Knob	Parameter
E1	MM Filter Cutoff
E2	MM Filter Resonance
E3	MM Filter Mode
E4	Drive
E5	LPF Cutoff
E6	LPF Resonance
E7	LPF Mode
E8	LPF FM

Fader	Parameter
F1	Env3 Attack
F2	Env3 Decay
F3	Env3 Sustain
F4	Env3 Release
F4	ENV2 Attack
F6	ENV2 Decay
F7	ENV2 Sustain
F8	ENV2 Release
F9	Volume

Fader Buttons	Parameter
F10	Keyboard Mode
F11	Unison
F12	FX Dist Type
F13	FX Mod Type
F14	n/a
F15	n/a
F16	n/a
F17	n/a
F18	n/a

EVB3

Encoder Knob	Parameter
E1	Vibrato
E2	Vibrato Rate
E3	Chorus Rate
E4	EQ Low
E5	EQ Mid
E6	EQ High
E7	EQ Level
E8	Reverb

Fader	Parameter
F1	UM 16'
F2	UM 5 -1/3'
F3	UM 8'
F4	UM 4
F4	UM 2 -2/3'
F6	UM 2
F7	UM 1 -3/5'
F8	UM 1 -1/3
F9	UM 1'

Fader Buttons	Parameter
F10	Cabinet
F11	Rotor Speed
F12	Reverb Mode
F13	Vibrato Upper
F14	Vibrato Lower
F15	Percussion
F16	Percussion Mode
F17	Percussion Harmonic
F18	n/a

EVD6

Encoder Knob	Parameter
E1	Comp Ratio
E2	Dist Tone
E3	Dist Gain
E4	Mod FX Rate
E5	Mod FX Intensity
E6	Mod FX Mode
E7	Wah Range
E8	Wah Envelope

Fader	Parameter
F1	String Decay
F2	String Release
F3	String Damping
F4	Tension Mod
F4	String Stiffness
F6	String Inharmonicity
F7	Pitch Fall
F8	Brilliance
F9	Volume

Fader Buttons	Parameter
F10	Brilliant
F11	Treble
F12	Medium
F13	Soft
F14	Pickup Mode
F15	Pickup CD
F16	Pickup AB
F17	Model
F18	n/a

EVOC 20

Encoder Knob	Parameter
E1.	Filter Cutoff
E2	Filter Resonance
E3	Low Frequency
E4	High Frequency
E5	Resonance
E6	Formant Stretch
E7	Formant Shift
E8	Analog

Fader	Parameter
F1	ENV Attack
F2	ENV Release
F3	Attack
F4	Release
F4	LFO Rate
F6	LFO2 Rate
F7	Noise Color
F8	Noise Volume
F9	Volume

Fader Buttons	Parameter
F10	LowBand Mode
F11	HighBand Mode
F12	Kybd Mode
F13	Unison
F14	LFO Waveform
F15	LFO2 Waveform
F16	Ensemble
F17	n/a
F18	n/a

EVP88

Encoder Knob	Parameter
E1	EQ Treble
E2	EQ Bass
E3	Drive Gain
E4	Drive Tone
E5	Phaser Rate
E6	Tremolo Rate
E7	Tremolo Intensity
E8	Chorus Intensity

Fader	Parameter
F1	Decay
F2	Release
F3	Bell Volume
F4	Damper Volume
F4	Stereo Intensity
F6	Lower Stretch
F7	Upper Stretch
F8	Warmth
F9	Volume

Fader Buttons	Parameter
F10	n/a
F11	n/a
F12	n/a
F13	n/a
F14	n/a
F15	n/a
F16	n/a
F17	n/a
F18	n/a

EXS24

Encoder Knob	Parameter
E1	Filter Cutoff
E2	Filter Resonance
E3	Drive
E4	Filter Key Tracking
E5	Glide Time
E6	Pitcher
E7	Pitcher via Velocity
E8	Level via Velocity

Fader	Parameter
F1	ENV1 Attack
F2	ENV1 Decay
F3	ENV1 Sustain
F4	ENV1 Release
F4	ENV2 Attack
F6	ENV2 Decay
F7	ENV2 Sustain
F8	ENV2 Release
F9	Volume

Fader Buttons	Parameter
F10	Filter Type
F11	Filter Fat
F12	Filter On/Off
F13	LFO1 Wave
F14	LF02 Wave
F15	Unison
F16	Mono Mode
F17	n/a
F18	n/a

Klopfgeist

Encoder Knob	Parameter
E1	Tonality
E2	Note Off Damp
E3	Tune
E4	Detune
E5	Mode
E6	n/a
E7	n/a
E8	Level Min Vel

Fader	Parameter
F1	n/a
F2	n/a
F3	n/a
F4	n/a
F4	n/a
F6	n/a
F7	n/a
F8	n/a
F9	Volume

Fader Buttons	Parameter
F10	n/a
F11	n/a
F12	n/a
F13	n/a
F14	n/a
F15	n/a
F16	n/a
F17	n/a
F18	n/a

Sculpture

Encoder Knob	Parameter
E1	Filter Cutoff
E2	Filter Resonance
E3	String Resonance
E4	String Media Loss
E5	String Tension Modulation
E6	EQ Low
E7	EQ Mid
E8	EQ High

Fader	Parameter
F1	Amp Env Attack Hard
F2	Amp Env Attack Soft
F3	Amp Env Decay
F4	Amp Env Sustain
F4	Amp Env Release
F6	Delay Wet Level
F7	Delay Feedback
F8	Delay Cross Feed
F9	Volume

Fader Buttons	Parameter
F10	Filter On/Off
F11	Filter Type
F12	EQ On/Off
F13	EQ Model
F14	Delay On/Off
F15	Delay Time Mode
F16	Kybd Mode
F17	Limiter Mode
F18	n/a

Ultra Beat

Encoder Knob	Parameter
E1	Filter Cutoff
E2	Filter Resonance
E3	Crush Drive
E4	Crush Downsample
E5	Crush Clip Level
E6	Noise Cutoff
E7	Noise Resonance
E8	Noise Dirt

Fader	Parameter
F1	OSC1 Saturation
F2	OSC1 Asymmetry
F3	OSC1 Slope
F4	OSC1 Pitch
F4	OSC1 Pitch via Vel
F6	OSC1 Level
F7	OSC1 LevelMod Amount
F8	n/a
F9	Volume

Fader Buttons	Parameter
F10	OSC1 On/Off
F11	OSC1 Type
F12	Level Source
F13	Noise On/Off
F14	Noise Filter Type
F15	n/a
F16	Sequencer On/Off
F17	Start/Stop Sequencer
F18	n/a



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