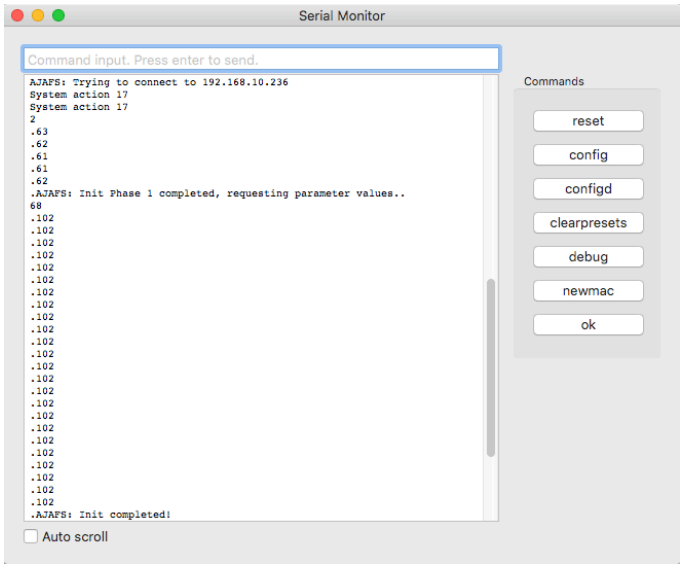
Device: AJA FS2

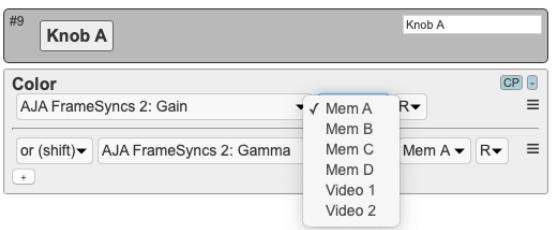
Introduction

A number of parameters on the AJA FS2 frame synchronizer can be controlled from a SKAARHOJ control panel. The complete feature set is not implemented but a large variety of actions can be found. This document gives you an overview of possible control parameters.

The implementation have been done on a FS2 with Software Version 2.1.1.5. Due to the amount of information on the FS2 a connection time is approximately 10 seconds. Connection status is shown in the serial monitor.



From the same panel it is possible to control the 2 different Video channels and switch between these on the fly. When relevant the channel for Actions on the FS2 Device Core can be set to Mem A-D, or Video 1-2. In the default configurations you will often find this set to Mem A so the different channels can be controlled on the fly by changing the Memory Parameter A to values between 1 to 2 elsewhere on the panel. The mapping between the Memory A and channels are shown below.

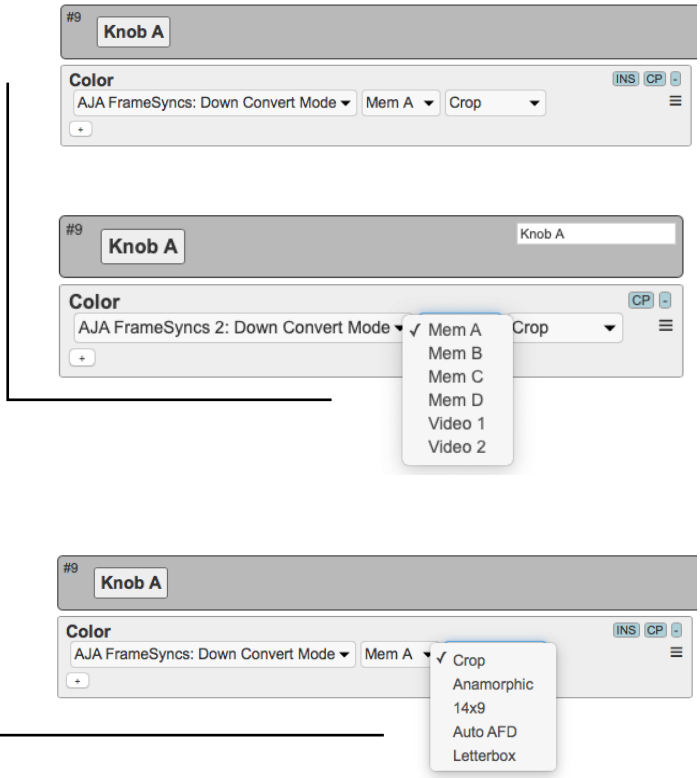


Mem A = 1 = Video 1 + Audio 1

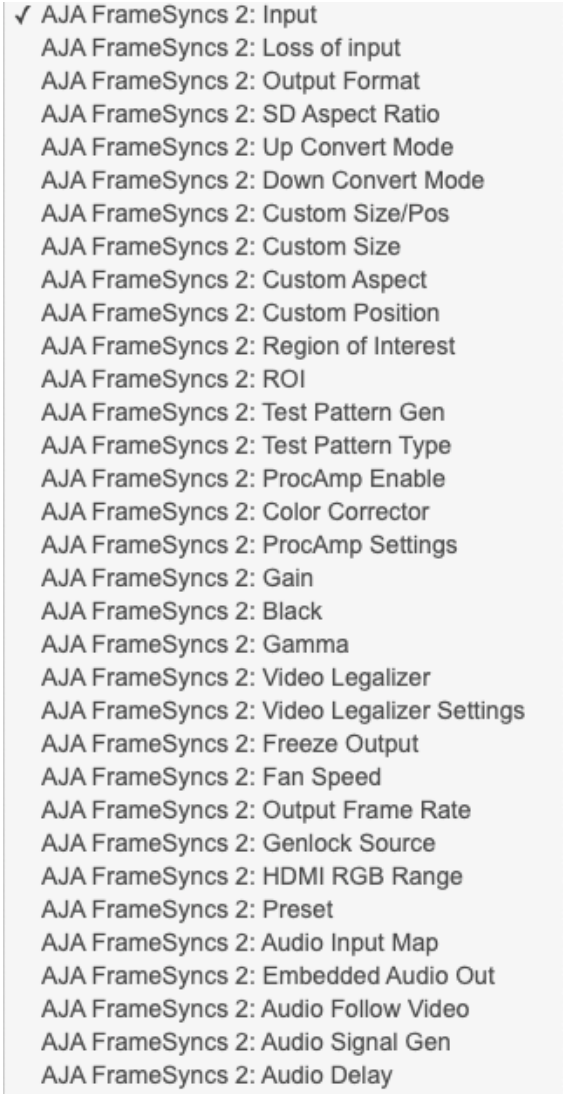
Mem A = 2 = Video 2 + Audio 2

A action is typically build up of two parameters:

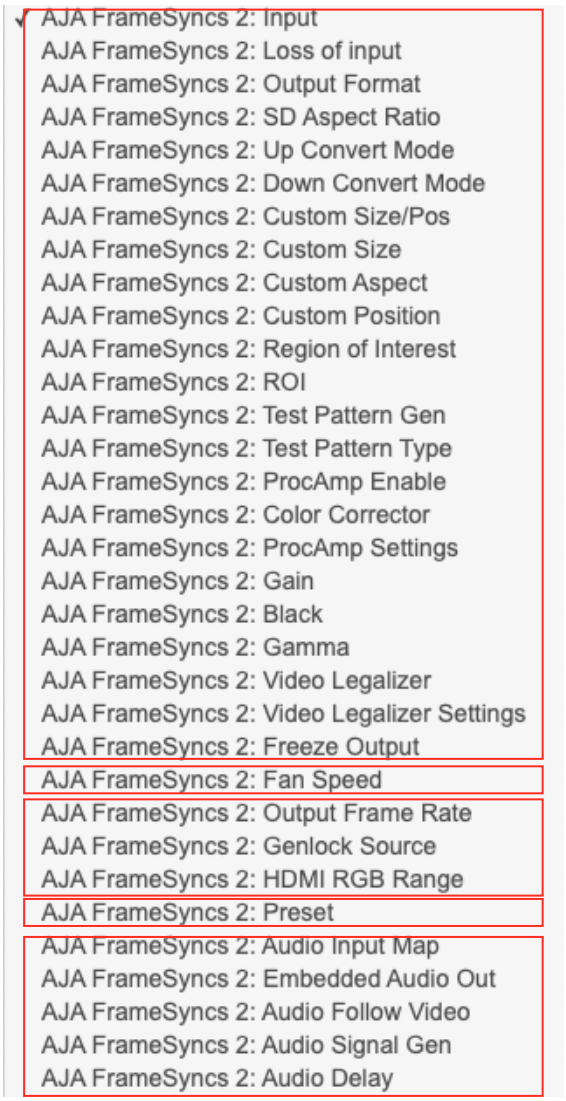
- Selection of the Video Channel on the FS2
- Selection of a specific value if it exists



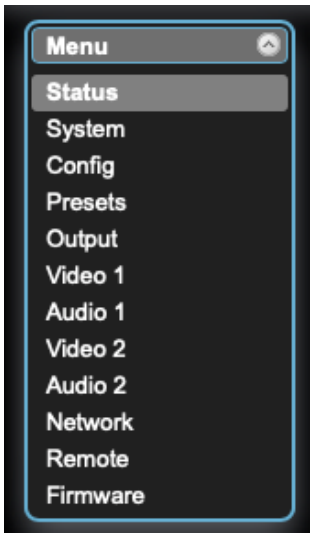
This is a overview of the actions implemented in the Device Core



The Actions are divided by using the control categories from the Frame Sync.



Status - Video 1-2



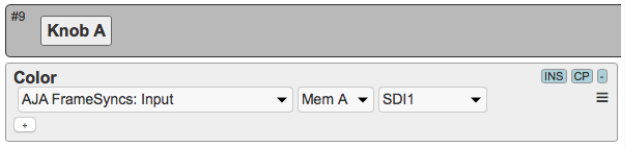
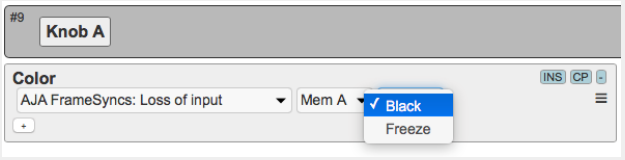
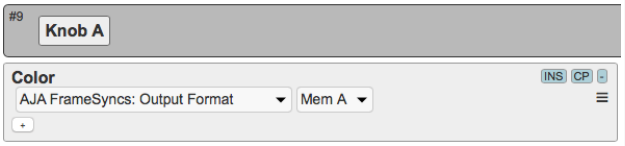
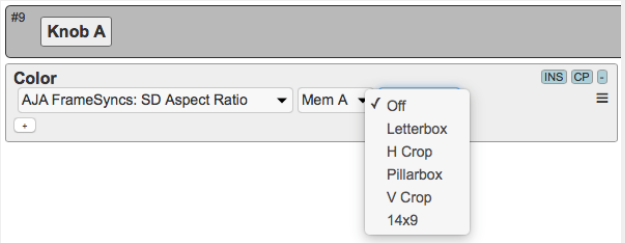
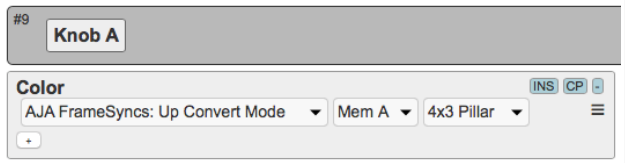
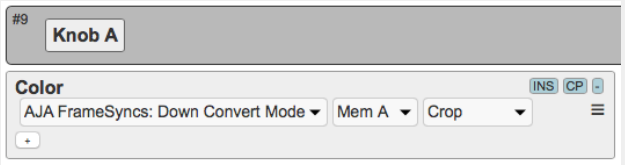
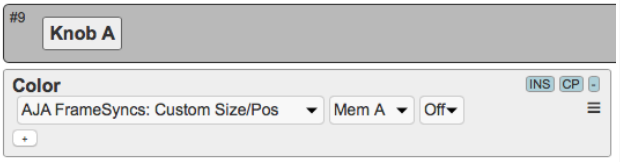
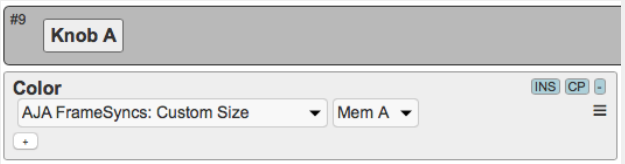
Status - Config

Status - System

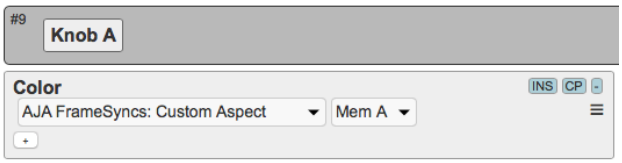
Status - Presets

Status - Audio 1-2

This is a table of actions for AJA FS2 Device Core

Input 	Routes input to the selected Channel *Binary triggers:* Sets the selected input to the selected channel. *Pulse inputs:* Will cycle through the Inputs for the selected channel. *Displays:* "Input/Input x"
Loss of input 	Selects option for Loss of input *Binary triggers:* Sets the selected mode for loss of input. *Pulse inputs:* Will cycle through options for loss of input *Displays:* "In Loss/mode"
Output Format 	Selects Output Format *Binary triggers:* Not implemented *Pulse inputs:* Will cycle through options for Output Format *Displays:* "Output/Format"
SD Aspect Ratio 	Selects SD Aspect Ratio *Binary triggers:* Sets the selected SD Aspect Ratio *Pulse inputs:* Will cycle through options for Aspect Ratio *Displays:* "SD Aspect/mode"
Up Convert Mode 	Selects Up Convert Mode *Binary triggers:* Sets the selected Up Convert Mode *Pulse inputs:* Will cycle through options for Convert Mode *Displays:* "Up Conv/mode"
Down Convert Mode 	Selects Down Convert Mode *Binary triggers:* Sets the selected Down Convert Mode *Pulse inputs:* Will cycle through options for Convert Mode *Displays:* "Dn Conv/mode"
Custom Size/Pos 	Turn off/on Custom Size/Position *Binary triggers:* Sets Custom Size/Postion to on/off *Pulse inputs:* Will cycle through on/off for Custom Size/Pos *Displays:* "Cust S/P/mode"
Custom Size 	Sets the Custom Size *Binary triggers:* Not implemented *Pulse inputs:* Will set the custom size *Displays:* "Cust Size/%"

Custom Aspect



Sets the Custom Aspect

Binary triggers: Not implemented

Pulse inputs: Will set the custom aspect

Displays: "Cust Asp/%"

Custom Postion

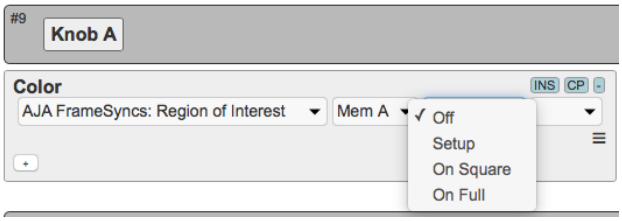
Sets the Custom Position for either H or V

Binary triggers: Not implemented

Pulse inputs: Will set the custom position for H or V

Displays: "CustPos H/%" or "CustPos V/%"

Region of Interest



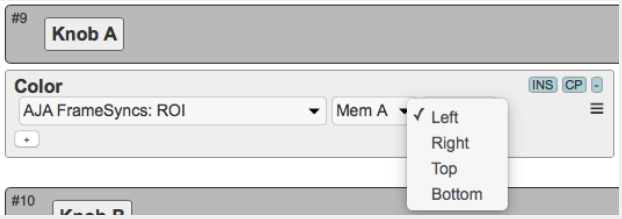
Sets the Region of Interest

Binary triggers: Sets Region of Interest. If Toggle is selected it will toggle between "Off" and the selected option.

Pulse inputs: Will cycle through options for Region of Interest

Displays: "ROI Mode/mode"

ROI



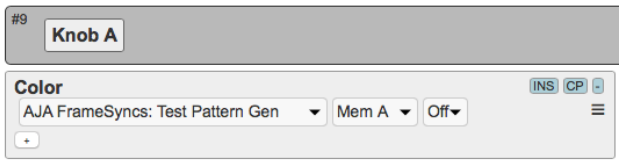
Sets the ROI parameters

Binary triggers: Not implemented

Pulse inputs: Will cycle through the selected ROI parameter

Displays: "ROI Left/%", "ROI Right/%", "ROI Top/%", "ROI Bottom/%"

Test Pattern Gen



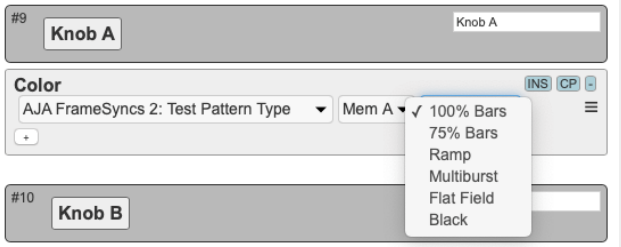
Controls the Test Pattern Generator

Binary triggers: Sets the generator to on or off

Pulse inputs: Will cycle through on/off

Displays: "Test Gen/mode"

Test Pattern Type



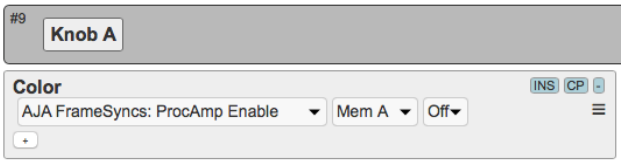
Controls the Test Pattern Type

Binary triggers: Sets the type to the chosen mode

Pulse inputs: Will cycle through the modes

Displays: "Test Ptrn/mode"

ProcAmp Enable



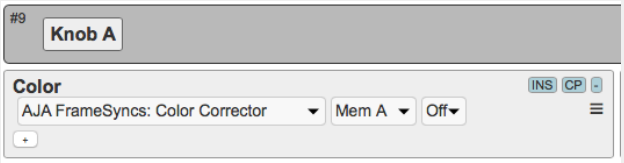
Sets ProcAmp to on or off

Binary triggers: Sets ProcAmp to the chosen mode

Pulse inputs: Will cycle through the modes

Displays: "ProcAmp/mode"

Color Corrector



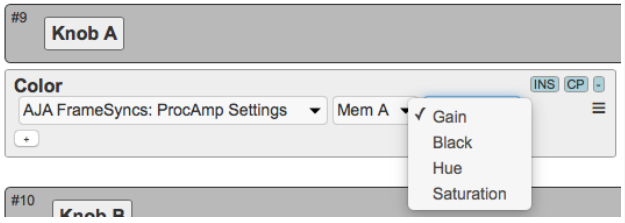
Sets Color Corrector to on or off

Binary triggers: Sets Color Corrector to the chosen mode

Pulse inputs: Will cycle through the modes

Displays: "ColorCorr/mode"

ProcAmp Settings



Controls the 4 ProcAmp values

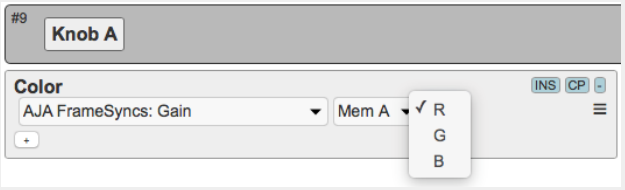
Binary triggers: Not implemented

Pulse inputs: Will cycle the selected ProcAmp parameter

Displays: "Gain/value" , "Black/value", "Hue/value", "Sat/value"

For "Gain" + "Black"
Analog inputs - Gain: Set the value between 0-1.5
Analog inputs - Black: Set the value between -20 - +20

Gain



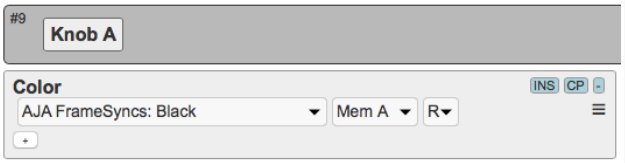
Controls the Color Corrector Gain RGB Values

Binary triggers: Not implemented

Pulse inputs: Will cycle the selected RGB Gain value

Displays: "Gain R/value" , "Gain G/value", "Gain B/value"

Black



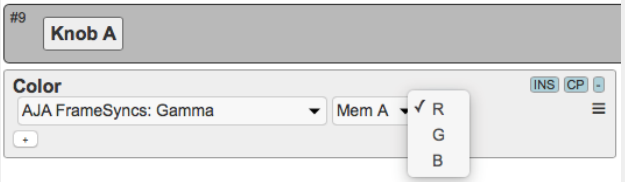
Controls the Color Corrector Black RGB Values

Binary triggers: Not implemented

Pulse inputs: Will cycle the selected RGB Black value

Displays: "Black R/value" , "Black G/value", "Black B/value"

Black



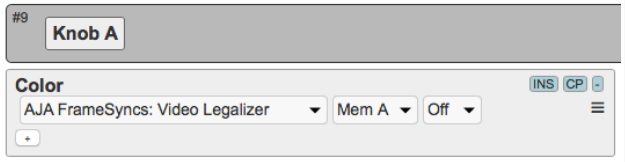
Controls the Color Corrector Gamma RGB Values

Binary triggers: Not implemented

Pulse inputs: Will cycle the selected RGB Gamma value

Displays: "Gamma R/value" , "Gamma G/value", "Gamma B/value"

Video Legalizer



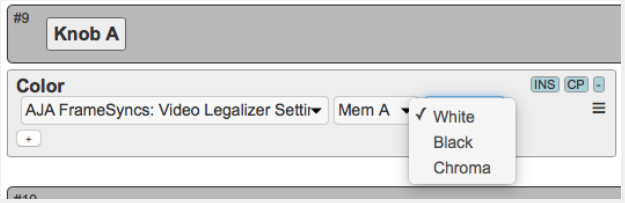
Sets the Video Legalizer to on or off

Binary triggers: Sets the Video Legalizer to the chosen mode

Pulse inputs: Will cycle through the modes

Displays: "Legalizer/mode"

Video Legalizer Settings



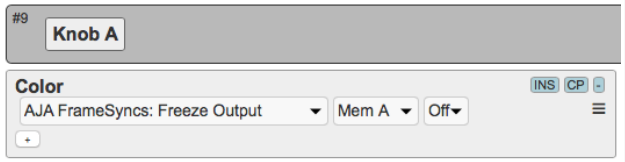
Controls the Video Legalizer Settings

Binary triggers: Not implemented

Pulse inputs: Will cycle through the selected values

Displays: "LegWhite/value", "LegBlack/value", "LegChroma/value"

Freeze Output



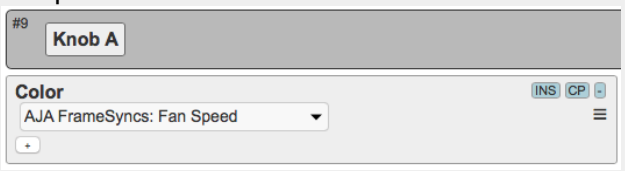
Controls the mode for Freeze Output

Binary triggers: Sets the Freeze Output to the chosen mode

Pulse inputs: Will cycle through the modes

Displays: "Freeze/mode"

Fan Speed



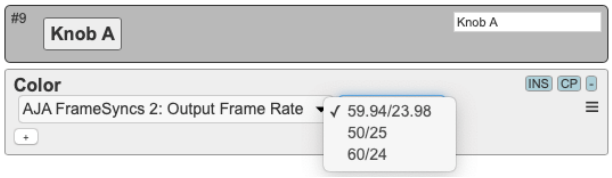
Controls the Fan Speed

Binary triggers: Not implemented

Pulse inputs: Will cycle Fan Speeds

Displays: "Fan Speed/value"

Output Frame Rate



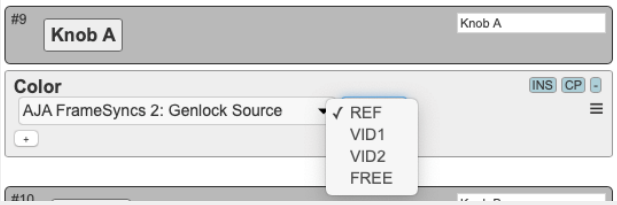
Controls the global Output Frame Rate

Binary triggers: Sets the Output Frame Rate to the chosen mode

Pulse inputs: Will cycle through the modes

Displays: "FrameRate/mode"

Genlock Source



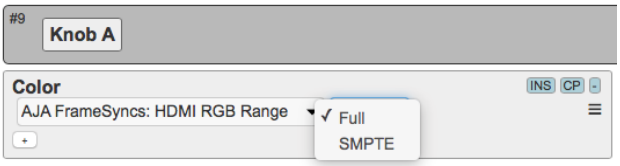
Controls the global Genlock Source

Binary triggers: Sets the Genlock Source to the chosen mode

Pulse inputs: Will cycle through the modes

Displays: "GenLokSrc/mode"

HDMI RGB Range



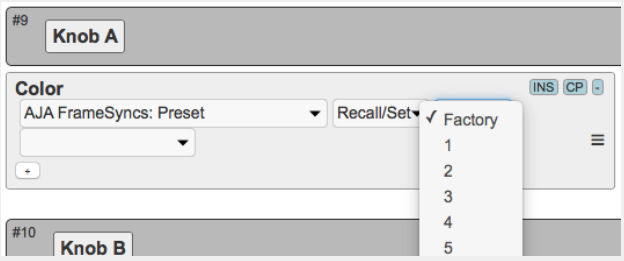
Controls the HDMI RGB Range

Binary triggers: Sets the HDMI RGB Range to the chosen mode

Pulse inputs: Will cycle through the modes

Displays: "HDMIRGBRA/mode"

Presets



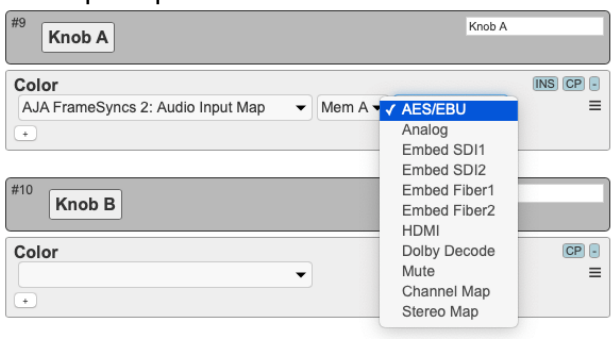
Controls the Presets on the FS. Select between 40 Presets and the Factory Default

Binary triggers: If "Recall/Set" - press and hold will perform a Preset Set
A single press will recall the preset
If "Set" a single press will save the preset
If "Recall" a single press will recall the preset

Pulse inputs: Not implemented

Displays:
If "Recall/Set" "Preset/no"
If "Set" "Set/no"
If "Recall "Recall/no"

Audio Input Map



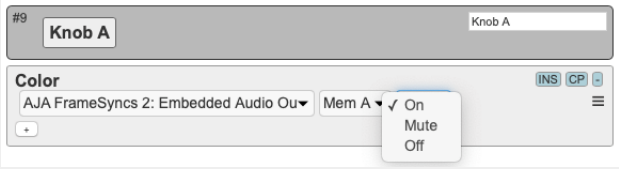
Controls the Audio Input Mapping

Binary triggers: Sets the Audio Embedding Mapping to the chosen mode

Pulse inputs: Will cycle through the modes

Displays: "Aud.Input/mode"

Embedded Audio Out



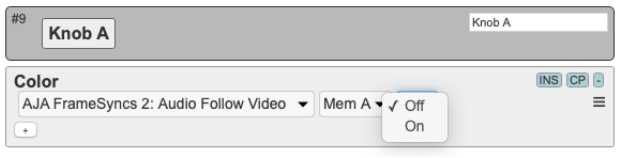
Controls the Embedded Audio Out

Binary triggers: Sets the Audio Embedding Out to the chosen mode

Pulse inputs: Will cycle through the modes

Displays: "Emb.Audio/mode"

Audio Follow Video



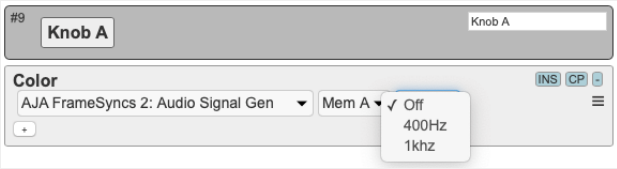
Controls the Audio Follow Video mode

Binary triggers: Sets the Audio Follow Video to the chosen mode

Pulse inputs: Will cycle through the modes

***Displays:* "Aud.Follow/mode"**

Audio Signal Gen



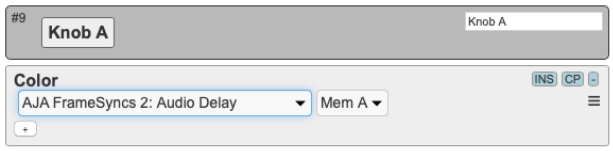
Controls the Audio Signal Generator

Binary triggers: Sets the Audio Signal Generator to the chosen mode

Pulse inputs: Will cycle through the modes

***Displays:* "Aud.Input/mode"**

Audio Delay



Controls the Audio Delay

Binary triggers: Sets the Audio Delay for the chosen Audio Channel

Pulse inputs: Will cycle the Audio Delay

***Displays:* "Aud.Input/mode"**