

## FTP Modes & Features

	Basic Mode	Hardware Mode	FTP App/VST	Notes
<b>Description</b>	Simple setup - the perfect mode most of the time. No splits. No Pedal channel. Defaults to Poly mode & Trig PB mode; Mono available with MIDI controller. Does not require the FTP App/VST for either programming or operation.	Intended for directly playing hardware synths without the use of a PC. Provides most FTP features, e.g., string splits, Poly & Mono modes & all string bend modes. The controller must be programmed using the FTP App, but operates in HW mode without it.	Running the FTP app or VST plugin provides maximum control over the FTP including string & fret splits, Poly & Mono modes & all string bend modes. Mixer provided; can help route audio, if desired. Needed to edit patches & program the controller.	
<b>How to launch</b>	Power up without the FTP App or VST running & without holding any d-pad buttons	Powerup without the FTP App or VST running while holding the UP d-pad button	Whenever an instance of the FTP App or VST plugin is running, you are in this mode	

### Controls

<b>UP &amp; DOWN</b>	Sends MIDI PCs, Program Changes	Patch Changes - scrolls thru the patches you created in the FTP App.	Not Song Mode: All User Patches Song Mode: Patch Changes in Song	
<b>ENTER &amp; BACK</b>	Toggles between Trig & Auto string bend modes	Unknown - "Flying Blind"	Menu Tree Navigation	Avoid using ENTER & BACK when in Hardware Mode
<b>Volume</b>	Transmits Volume on CC#7	Transmits Volume on CC#7	Transmits Volume on CC#7	Volume (CC#7) is not xmitted when Guitar-Mix-Synth switch is set to Guitar
<b>Guitar-Mix-Synth</b>	Will zero out Synth volume when Guitar selected.	Will zero out Synth volume when Guitar selected.	Controls FTP mixer; will zero out Synth volume when Guitar is selected & Guitar volume when Synth is selected.	Volume (CC#7) is not xmitted when Guitar-Mix-Synth switch is set to Guitar

### Features Available

<b>Poly</b>	Yes	Yes	Yes	
<b>Mono</b>	Yes (Reqs MIDI Controller, CC#126)	Yes	Yes	
<b>Trig PB mode: Chromatic</b>	Yes (Use ENTER & BACK to toggle)	Yes	Yes	Chromatic
<b>Auto PB Mode</b>	Yes (Use ENTER & BACK to toggle)	Yes	Yes	Non-Chromatic (Whammy, Bends, Legato, Slide)
<b>Smooth PB Mode</b>	No	Yes	Yes	Non-Chromatic (Whammy, Bends, Legato, Slide)
<b>Stepped PB Mode</b>	No	Yes	Yes	Chromatic variation
<b>Song Mode</b>	No	No	Yes	Allows for instantaneous patch changes within a song
<b>Splits - by string</b>	No	Yes	Yes	
<b>Splits - by fret</b>	No	Yes	Yes	
<b>Different Dynamics Settings per Patch</b>	No	Yes	Yes	
<b>Mixer master volume control (via CC#80)</b>	No	No	Yes	Option must be set under Preferences
<b>UI Funcs, e.g.: Tuner, Patch Editing, Song Editing, Load Controller, Mixer, Set PBR, Tuning &lt;&gt; A440, etc.</b>	No	No	Yes	
<b>Pedal functions</b>				
<b>Sustain</b>	Yes	Yes	Yes	If no Pedal Chan defined, CC#66 performs sustain
<b>Invoke Pedal channel</b>	No	Yes	Yes	If Pedal Chan defined, CC#66 toggles Pedal Chan
<b>Menu Tree Functions</b>				
<b>Change Sensitivity</b>	No	Unknown - "Flying Blind"	Yes	Avoid using ENTER & BACK when in Hardware Mode
<b>Tuner</b>	No	Unknown - "Flying Blind"	Yes	Avoid using ENTER & BACK when in Hardware Mode
<b>Change PBR</b>	No	Unknown - "Flying Blind"	Yes	Avoid using ENTER & BACK when in Hardware Mode
<b>Change Patch Parameters</b>	No	Unknown - "Flying Blind"	Yes	Avoid using ENTER & BACK when in Hardware Mode

## FTP Midi Implementation

### MIDI Implementation

		Basic Mode		Hardware Mode		FTP App/VST		Notes
		Transmit	Receive	Transmit	Receive	Transmit	Receive	
<u>Function</u>	<u>MIDI Messages Used</u>							
MIDI Clock	MIDI Clock	No	No	No	No	No	No	<i>Clock/tempo not passed to hosted VSTs</i>
POLY setting	CC#127	No	Yes	No	Yes	No	Yes	FTP honors the CC#127 standard MIDI POLY msg
MONO setting	CC#126	No	Yes	No	Yes	No	Yes	FTP honors the CC#126 standard MIDI Mono msg
Master Volume	CC#80	No	No	No	No	No	Yes	Option to control patch volume in the App/VST
<b>Performance</b>								
Notes	Note ON & Note OFF Various CCs On Channel 8	Yes	No	Yes	No	Yes	No	
Bends/Legato	Wheel events	No	No	No	No	Yes	No	
		Yes	No	Yes	No	Yes	No	Not sent in TRIG pitchbend mode
<b>Controls</b>								
UP & DOWN	Program Change Various CCs On Channel 8	Yes	No	Yes	No	Yes	No	
		No	No	Yes	No	Yes	No	Helpful to know, can help with scripting...
BACK & ENTER	Various CCs On Channel 8	Yes	No	Yes	No	Yes	No	Helpful to know, can help with scripting...
Volume	CC#7	Yes	No	Yes	No	Yes	No	
Guitar-Mix-Synth	Various CCs On Channel 8	Yes	No	Yes	No	Yes	No	Helpful to know, can help with scripting...
<b>Pedal Functions</b>								
Sustain	CC#66	No	Yes	No	Yes	No	Yes	If no Pedal Channel defined, performs sustain
Pedal Channel	CC#66	No	No	No	Yes	No	Yes	If Pedal Channel defined, toggles Pedal Channel
<b>Upon Power Up</b>								
Set PBR	RPN, CCs #6, #38, #100 & #101	Yes	No	Yes	No	Yes	No	Sends RPN to change the synth PBR to match the FTP
Synth Tuning	RPN, CCs #6, #38, #100 & #101	Yes - A440 only	No	Yes	No	Yes	No	Sends RPN to tune synth to match the FTP Tune Base
Volume	CC#7	Yes	No	Yes	No	Yes	No	Value based on Volume & Guitar-Mix-Synth settings
Pitch Bends	Wheel Events => 0	Yes	No	Yes	No	Yes	No	Zero out all wheels/bends
All Notes OFF	All Notes OFF	Yes	No	Yes	No	Yes	No	
Expression	CC#11	Yes - to 7FH	No	Yes	No	Yes	No	Matches "Volume" Slider setting for User Patch #1
Reverb	CC#91	No	No	Yes	No	Yes	No	Matches "Reverb" Slider setting for User Patch #1
Program Change	PC & CC#0 & CC#32	Yes - All zero	No	Yes	No	Yes	No	Matches Program Change settings for User Patch #1
<b>Upon Patch Changes (UP &amp; DOWN)</b>								
Expression	CC#11	No	No	Yes	No	Yes	No	Matches "Volume" Slider for selected User Patch
Reverb	CC#91	No	No	Yes	No	Yes	No	Matches "Reverb" Slider for selected User Patch
Program Change	PC & CC#0 & CC#32	Yes - PC only	No	Yes	No	Yes	No	Matches PC settings for selected User Patch
Pitch Bends	Wheel Events => 0	No	No	Yes	No	Yes	No	Zero out all wheels/bends
<b>Channel 8</b>								
Channel 8	Various CCs	Yes	Yes	Yes	Yes	Yes	Yes	<b>Channel 8 is used for comms between the Controller &amp; App/VST. Avoid using Channel 8 in your rig.</b>
<b>FTP Control Ports</b>								
FTP Control Ports	Various CCs & Sysex Messages	Yes	Yes	Yes	Yes	Yes	Yes	<b>Never access/attempt to use the Fishman Control Ports in your configuration. Unpredictable behavior will result. Used for communication between the Controller &amp; App/VST.</b>

# FTP Midi Implementation

FTP Channel Usage			
		Mono Mode	Poly Mode
Output	Purple (Synth 1) & Green (Synth 2)	Channels 1-6	Channel 1
Output	Pedal Channel	Channel 7	Channel 2
Output	FTP Internal Usage	Channel 8	Channel 8
Output	Splits: Blue (Synth 3) & Yellow (Synth 4)	Channels 11-16	N/A
Input	Messages TO the FTP (e.g., Pedal, Mono/Poly)	Channel 1	Channel 1

Notes: - No Splits & No Pedal Channel in Basic Mode  
- No Splits in Poly Mode