

FTP Hardware Mode Notes

Shawn Bulen

These notes assume you are running in HW mode, that is, you have booted the FTP controller while pressing the d-pad UP button, and further, that you do *NOT* have the FTP application up & running. Behavior will be different if you have the app up & running.

These notes also assume you are executing in Mono Mode; that is, Synth 1 in the first user patch is set for Mono Mode.

Don't forget to press the "Load Controllers" key so your patches are loaded onto the FTP controller.

Channel 8

Do not use channel 8 on that MIDI port/chain for any other purpose or device. Channel 8 is used for communication between the FTP application and the controller. Extraneous channel 8 activity will likely confuse the controller & produce unexpected behavior.

All FTP control actions while in HW mode cause CCs 31 & 63 to be xmitted on channel 8. I'm not sure why they are sent when in HW mode, but they are.

Global Settings

The pitch bend range and string sensitivities are global parameters, so they will not vary per patch.

The MIDI Mode (Mono/Poly) setting is also global. The only MIDI Mode setting honored is the one defined for Synth 1, on your first user patch. These notes assume you are in Mono Mode.

Upon Powerup in HW Mode:

Upon powerup, MIDI messages are xmitted to your synthesizer, on channels 1-7 & 11-16, to:

- Set pitch bend ranges to match the FTP global setting (using CCs 6, 38, 100 & 101 method)
- Set volume according to the current FTP Volume control setting and the GUITAR/MIX/SYNTH switch (via CC 7)
 - Selecting GUITAR always zeroes out volume, no matter what the knob's value
 - Selecting MIX or SYNTH always sends the current volume based on the knob's value
- Zero out all pitch bends
- Set All Notes OFF

On powerup, the FTP controller also sends MIDI configs for User Patch #1:

- Note that splits are honored, and that Synth 1 & Synth 2 definitions affect channels 1-6; and Synth 3 and Synth 4 definitions affect channels 11-16; and the Pedal channel definition affects channel 7.
- Sets Expression value to match the Volume slider setting (via CC 11)
- Sets Reverb Level to match the Reverb slider setting (via CC 91)
- Sets all Program Changes and banks to match user patch #1 (using PC and CCs 0 & 32)

FTP Controls in HW Mode:

VOLUME sends CC 7 controller messages when the GUITAR/MIX/SYNTH switch is set to MIX or SYNTH. CC 7 messages are not sent when the switch is set to GUITAR.

UP & DOWN d-pad keys select patches from your user patch list.

GUITAR/MIX/SYNTH switch, if changed, will send volume info on channels 1-7 on CC 7:

- Selecting GUITAR always zeroes out volume, no matter what the knob's value
- Selecting MIX or SYNTH always sends the current volume based on the knob's value
- This will also affect channels 11-16 if splits have been defined for the current patch

ENTER key (towards the bridge) – Undoc'd. Appears to toggle between two sets of patches, I'm not sure where the second set of patches comes from...

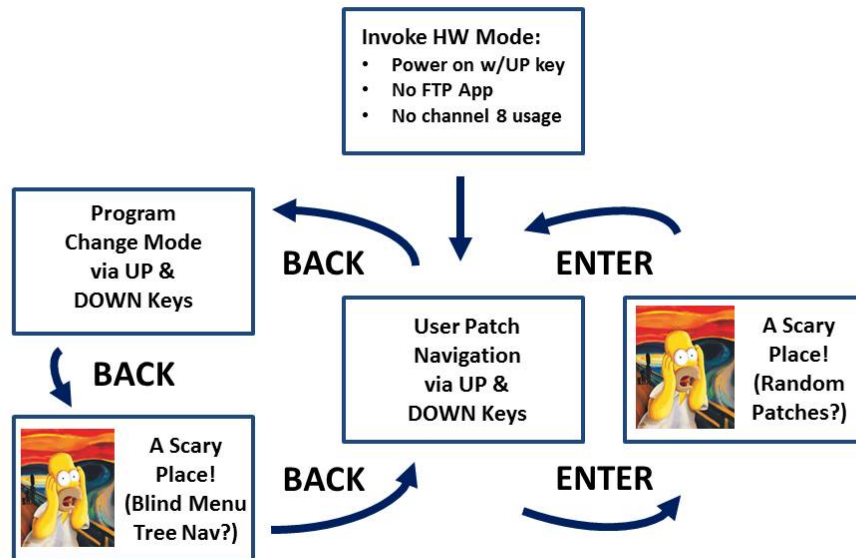
BACK key (towards the neck) – Undoc'd. This appears to toggle between 3 modes –

- (1) A nifty simple **Program Change Mode**, that sends MIDI PCs that equal the patch #s
- (2) What I suspect is the FTP Menu Tree. Since I suspect you are changing values when you navigate the Menu Tree, and you are doing so blind, I'd suggest staying away from this mode...
- (3) Normal user patch selection mode

The Program Change Mode is very handy for rapidly testing each of your hardware synths' voices!

- As you navigate UP and DOWN, it increments & decrements PCs for the Synth 1 channels.
- It works best if you have no splits and the purple Synth 1 region includes all 6 strings, i.e., PCs are transmitted for channels 1-6.
- This mode inherits all settings in effect when it is invoked, e.g., pitchbend mode!

FTP HW Mode Navigation



Using Patches in HW mode:

The UP and DOWN keys navigate among ALL user patches - not just “hardware mode” patches. I.e., patch #10 in your user patch list is patch #10 when you navigate via the UP and DOWN d-pad keys.

Only the ‘Hardware Synth’ window gives you control over MIDI parameters such as Program Changes, MIDI Reverb & MIDI Volume. If your user patch points to a soft synth to be hosted by the FTP app, not a “Hardware Synth”, then MIDI configurations such as Program Changes & MIDI Reverb & MIDI Volume are not transmitted when the patch is selected. Their values will remain unchanged.

Splits are honored:

- Purple (Synth 1) & Green (Synth 2) regions (towards the nut) use channels 1-6
- Blue (Synth 3) & Yellow (Synth 4) regions (towards the bridge) use channels 11-16
- Where overlap has been configured, both notes are xmitted, e.g., it is possible to have your low E string send notes on both channel 6 & 16 if you drag the splits to overlap and save the patch.

Pedal Channel:

- Channel 7 is used for the “Pedal” channel.
- If a Pedal channel is defined as a ‘Hardware Synth’, it is used by default for that patch when navigating, i.e., notes played are xmitted on channel 7.
- Note that ONLY channel 7 is used; thus Pedal channel voices provide ‘poly’ support.

TriplePlay Parameters:

MIDI Mode - Mono/Poly - As the manual states, the only MIDI mode setting honored is the one on patch #1, for Synth1. However, read the note on the Pedal channel, above, for a possible workaround to obtain a poly mode.

Touch Sensitivity, Dynamics settings, Transpose, Pitchbend - are all honored. However, where overlap is defined, the Synth1 & 2 values trump Synth 3 & 4 values for these settings.

Sustain Pedal & Pedal Mode – The FTP does, in fact, respond to sustain pedal and the documented pedal channel MIDI CCs when in HW mode. Most helpful:

- If your current voice has NO Pedal channel defined, sending a CC#66 127 causes the FTP device to hold your chord. Sending a CC#66 0 releases the hold.
- If your current voice has Pedal channel defined, sending CC#66 127 and 0 toggle between the pedal channel definition and the normal Synth1-4.

To use the Sustain & Pedal functions in HW mode, you send the CCs to channel 1, on the Fishman TriplePlay port.

Program Changes –

- The PC, LSB & MSB are xmitted when the patch is loaded if any value is non-zero; LSB & MSB are xmitted as CCs 0 & 32.
- Patches 1-15 appear to default to simple PCs 0-14 on channels 1-6 until they are overwritten with user settings.

MIDI Volume – the Volume slider setting is xmitted when the patch is loaded, via CC 11.

** Note the “Volume” slider dictates the starting value for EXPRESSION, CC 11 **

MIDI Reverb – The Reverb slider setting is xmitted when the patch is loaded, via CC 91.

An Example, Tying this all Together:

If you want to be able to toggle between “smooth” & “trigger”, and also between and poly & mono modes while in HW mode, one approach is to:

- Set up 'Hardware Synths' for four patches, from user patch #1 thru user patch #4.
- Set these 4 patches up with Synth 1 only, covering the whole fretboard, no splits.
- Set patch #1, Synth 1, up for "Mono" mode.
- Set patch #1 and #2 up for "trigger", and patch #3 and #4 up for "smooth".
- Add a simple 'Hardware Synth' selection for the Pedal track for patches #1 and #3. VERY critical you set up both 'Pedal' tracks, they can't be set to 'None'.
- Make the patch #1 Pedal track "trigger", and the patch #3 Pedal track "smooth".

If you've done this correctly, the UP and DOWN dpad keys will allow you to switch between patch #1 (poly, trigger), patch #2 (mono, trigger), patch #3 (poly, smooth), and patch #4 (mono, smooth).

More on Program Change Mode:

Below is a screenshot from MidiOX showing the MIDI events generated when navigating within Program Change Mode, showing that it will xmit PCs on all active channels.

Remember, this mode inherits all settings in effect when it is invoked, e.g., pitchbend mode and poly/mono. Thus, if you configure FTP as shown in the example on Page 4, you can leverage this mode to make it easy to explore old hardware synths without navigating layers of menus on your old synths!

Program Change Mode

Navigate & Xmit PCs via UP and DOWN keys
to Channels 1-6; Also Zeroes out Pitch Wheels

(Navigation to patches 3 & 4 displayed; channel 8 messages excluded)

