Using the Behringer FCB1010 Floorboard

The following notes have been compiled from message posts submitted by a number of users on the FDP (Fender Discussion Pages).

I have performed no editing on the content of these posts and they will be pretty much in the original form (thanks to Cameron for sending me this compilation) .

In time, I will attempt to format the information presented here in the form of a tutorial - for now, you can just read through and glean plenty of hints & tips...

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Dear BEHRINGER users,

At first we would like to thank you for showing interest in BEHRINGER products. The expression pedals are calibrated and completely checked before they leave our Company. However it is possible that during transportation or influence of temperature the calibrated values have become out off reach. Normally after using the pedal for several times, it should be gone. There is a way to re-calibrate your expression pedals.

Calibration – Self-test FCB1010:

Keep pedal 1 and 3 pressed while switching on the unit. The unit is in self-test-mode now. LED's are checking.

Wait until all pedal led's are burning. Push all pedals now (one at a time, including up and down) until all leds are off.

Wait until relay test is finished.

Press the down-button once.

Adjust the left expression pedal (A) to the lowest value. Once adjusted press UP.

Adjust the left expression pedal (A) to the highest value. Once adjusted press UP.

Adjust the right expression pedal (B) to the lowest value. Once adjusted press UP.

Adjust the right expression pedal (B) to the highest value. Once adjusted press UP.

Now the pedals are calibrated and there should be a value of 0-127 to the midi-output.

Another note:
There will be a software update coming up soon, with V-amp configuration and TC G-force.

We hope that we have been able to help you with this information.

Best regards,
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I got the Behringer FCB yesterday. It is full metal, the switches look quite sturdy, and the controller pedals also make a good impression, they move very smooth and even.

Right out of the box it basically worked with the CT, you can change patches inside the players lounge and control the master volume of the CT without any programming. The volume pedal uses the complete range and works very accurately.

For the second controller pedal: The default for the second assignable continuous controller on the CT is 11, so unless you change these settings on the CT, it expects controller #11 as input. The Behringer by default has controller #14 defined for the second controller pedal. So I just went through the settings of the Berhinger and modified the controller number from 14 to 11. It worked instantly, I can now use the second controller pedal for the assignable controller on the CT. You could achieve the same by changing the CT settings, I just thought it makes more sense changing the pedal settings.

For the tuner: You can select the tuner by selecting patch number 127 on the CT. You just don't get any indication (sharp/flat) on the Behringer, you have to watch the CT display for that. But you can activate the tuner from the Behringer, which is fine enough for me.

You just need to make sure that for each FCB1010 Preset, you have a CNT1 enabled and sending out CC # 32 with a value of 0. This will make sure that the CT will change to Bank 0, which is the MIDI Map and probably what you are used to - let me know if you need more details on how to do that on the FCB1010...

What the manual addendum is saying is this. Instead of having a one button used to turn effects on and another seperate button to turn effects off, you can have a single button programmed to alternate the midi message it sends out. So one press of the button would send the Effect ON message and the next press of the same button would send the Effect OFF message...

Your is fairly new (Mine is too) and it MAY have this feature. I got my FCB1010 in December and it does NOT have this feature built in...

The other feature it talks about there would allow you to copy a preset from one button to another. So instead of having to build an effect on/off button for EVERY bank, you make a preset in bank 0 and copy it to all the other banks.

Both of those features are very convenient, and I would love to get hold of the ROM upgrade to make them work on mine. I am in touch with Behringer ASAP to find out how I can get it.

NOTE: in order to use these extra features, you need the v2.1 ROM upgrade.

Copying Presets
Activate CONFIG in the GLOBAL SETUP (see chapter 2.2 of the manual). Now, press footswitch 5 to activate the copy function. (The VALUE 1 LED lights up and the number in the display starts flashing.) Enter the number of the preset you wish to copy and confirm your selection with UP/ENTER. Presets 1 - 10 are stored in bank 0, presets 11 - 20 in bank 1, and so on. (The VALUE 2 LED lights up and the number in the display starts flashing.) Enter the target preset and confirm your selection with UP/ENTER, or cancel with DOWN/ESCAPE. If you want to copy further

presets, please press footswitch 5 again. Press and hold DOWN/ESCAPE to quit the GLOBAL SETUP.
Toggling between two controller values in a patch
Allows you to configure one controller so that it alternately sends two different values, e.g. effect bypass, drive on/off, etc. In order to enable the controller switch-over function, you need to globally select the same MIDI channel for CNT1 and CNT2 (see chapter 2.2), and enter the same controller number for CNT1 and CNT2 in the preset (NUMBER, see chapter 2.3.2). The first time you recall the preset, it will send the controller value of CNT1 (VALUE 1), with each additional key press you can alternate between CNT2 and CNT1. Example: Select preset 1 without DRIVE function on the BEHRINGER V-AMP each time you press the same button again, DRIVE will be switched on or off respectively: PROG CHG 1 = 1, CNT 1 NUMBER = 26, VALUE 1 = 0, CNT 2 NUMBER = 26, VALUE 1 = 127.

1. Go into the utilities menu on the C-T & set the "cont.cont." from 11 to 14.
That will make the both pedals operational -globally. Then what I did so that I did not have to reassign stuff at every patch, was to make the "expression Pedal" the master volume on all patches (This means that the inside pedal on the FCB1010 is always my master volume), and then I could use the outside pedal on the FCB1010 as the; wah, gain, treble, echo brightness, etc, etc.

2. I downloaded Harriers PatchWizard. This makes it very easy to among other things manipulate patch locations within the Player Lounge. Eventually I am going to try and use the top buttons on the FCB (6,7,8,9, & 10) for things like tuner on/ off & effects on/ off and nice stuff like that.
By only planning to use buttons 1-5 I still have 50 readily available patches -WAY MORE THEN I'LL EVER NEED TO GIG WITH. I positioned all my patches at; P01-P05, P11-P15, P21-P25, P31-P36, etc.
Now I only have to worry about screwing around with one row of buttons.
I have found the C-T to be guitar sensitive, meaning different guitars really do cause the amp to sound or react differently (A good thing BTW)
Since I don't need 100 different sounds, I like to have a real saturated, Gainy, sustained, but not to dirty sound, basically the same character as the previous just a bit cleaner, & a nice clean midrange well rounded tone. I am probably going to set the C-T up so that each bank of 5 is for a different guitar. This will be another benefit to PatchWizard.

Plug in the foot pedal, turn it and the CT on. Hit the utilities button 4 times to get to the "Continuos Controller" and change that number to 14. This gets the expression pedal B working. Then hit the button 4 more times (I think) to get to the "midi map" and assign any preset to a number on the foot pedal by changing the preset number on the right to the one you want. You can then go into your presets on the CT and change the Continuous Controller to any parameter you want to be affected by expression pedal B.

I have been able to figure out how to access the Cyber-Twin Tuner from the FCB1010 - here's how:

1. Any FCB Preset can be used as a "Tuner Access" Preset - you will sacrifice other things that this chosen FCB Preset can do, but you do have 100 to go at, so pick a "sacrificial Preset" (I decided upon FCB Bank 9 Preset 9, so that I can just drop down a bank from my regular "most used" bank).

2. Go into programming mode for that FCB Preset, make sure that just "PROG CHG 1", and "CNT 1" are enabled...

3. Edit "CNT1" so that "NUMBER" (Controller Number) is 32, and "VALUE 1" is 1, 2, or 3 (Not ZERO!)

4. Edit "PROG CHG 1" so that "NUMBER" is 128

5. Exit FCB programming mode

You should now find that after selecting that FCB Bank (In my case I select Bank 9)... you can press the chosen Preset (9 in my case) and it will Activate

the CT Tuner, and pressing that switch again will toggle it off.

This operation will leave your CT set to a Bank other than 0, so you may want to set up your regular FCB Presets so that they always send a Bank change command to the desired CT Bank (usually 0)

The FCB1010 does default to bank 0 every time you turn it on. In order to make it call up your first ten Players lounge presets you will have to program buttons 1-10 to send out Program Change numbers from 0-9 respectively. Once that is done, make sure your first ten presets in the CT are assigned to numbers 0-9 in your MIDI Map in the "Settings" menu in the CT...

I have downloaded the manual, and from what I see, it does not transmit Bank Changes - this means that the selection of 120 that you can access from the Floorboard is actually accessing the Cyber-Twin's MIDI Map which is Bank 0.

The good news is that you can edit this to your preferences in the "Utility" section - just press the Utility button until you get to the MIDI Map section, then select a number with "FX Val 1" - this first number will be your "Floorboard button number (0-120)". Then all you need to do is turn "FX Val 2" until you see the Preset number (C00-C84, P00-P84, or A00-A34) that you want it to change to when you select the first number with the Floorboard. Repeat this process for each of the 120 if you wish.

It's a bummer that you cannot freely select any of the possible 205 Presets, but an assignable selection of 120 out of 205 should be sufficient for a couple of live sets...

With the CT, the effect is programmed along with the amp setting, and only that one effect which is programmed into the CT's amp setting can be turned on or off at one time. If you want multiple effects with the same "dry" tone, then I suggest this...

Example: You have a Great amp preset with your Wah set up, but you also want a phaser. Go to the preset you have your wah programmed to and change the effect to phaser, get your sound right and then save it as a different program number. This will allow you to have the same amplifier tone with multiple effects but only one on at any given time.

So anyway, to answer your question, here is how you turn the effects on and off... You have to set the 1010 to send out Continuous Controller number 85 with a value of 0 to turn the effect OFF and a value of 127 to turn the effect ON. This will take 2   separate buttons UNLESS you got an addendum to your manual with your 1010, if you did then you can set this up on one button cause you have a newer version then the rest of us...

When you set the effect on/off buttons up, be sure to retain the Expression Pedal settings in that button program or you will lose your expression pedals when you turn the effects on...

The 127 locations are actually more a feature of the MIDI specification than the FCC.

MIDI Program Change commands can have a value from 0 to 127, the way that MIDI is used to access a larger number of Presets than that is to have multiple banks - switching between them is accomplished by using a different MIDI command (a CC, or Continuous Controller of a specific ID). The Fender controller probably did not implement Bank

Changes because they knew that the basic Prog. Change scope of 0-127, combined with the built in ability of the CT to "remap" to any available Preset, would suffice for most folk.

This MIDI "map-ability" means that you could do it in any order, or even do something really whacky like map a bunch of FC selections to the SAME CT Preset (could be useful if you are doing a gig and some drunk starts dancing on your Foot Controller!)

From what I've seen, the Behringer is way more programmable, on the other hand, it may be real flimsy compared to the Fender Unit (worth considering since it's only purpose in life is to be stomped on!)

I think the FCC is only able to indicate that you are in Tuner Mode (either the Behringer or the Fender will switch to it). The display is not adequate to display actual tuning details, nor is the foot controller able to determine the note being played.

First, a small lesson on MIDI program changes and Continuous Controllers, 3 things you need to understand.

1) There are 16 channels (Channel 0-15) which program change messages and continuous controller data can be transmitted and received on. (Much like tuning to a radio station in which you receive an FM Broadcast)

2) There are 128 program change messages available (0-127) on each channel

3) There are 128 (0-127) Continuous Controllers on each channel, which control variables such as volume, gain, wah etc... Each continuous controller has a value associated with it with a range from 0-127

There are also MIDI Note on/off commands which are irrelevant here, as the CT does not use MIDI Note on/off commands to perform it's MIDI Functions.

Having said that, I will continue on with some CT specific MIDI data, as well as some variations on what the Behringer FCB1010 and Fender CFC are capable of.

1) The CT can be assigned to receive MIDI data on any or all of the MIDI channels 0-15 or Omni for all (See #1 above)

2) The CT has a MIDI Map which responds to Program Change messages on the channel assigned (See Above #2) Using this MIDI Map you can assign any of the CT's 205 presets to respond to program change 0-127. (ie. You can Map C42 to Program Change 103. Upon receipt of Program Change number 103, the CT will go to Amp Design C42.)

3) The CT has CONSTANT Continuos Controller assignments for several different parameters which can be found in the back of the CT Manual as well as one ASSIGNABLE Continuous Controller which is assigned in your Amp settings under "Continuous Controller" (Can be any of the parameters assignable under "Expression Pedal")

The CONSTANT Continuous Controller (Or "CC" from now on) for Master Volume is CC #7, Value 0-127.

The ASSIGNABLE CC can have a user assignable controller number (Default is #11) Value 0-127.

Note On the Behringer, the CC Expression Pedals are by default assigned to CC #7 and #14, so it's easier to change the CT's Assignable CC to #14 so one is always Master Volume and the other will correspond to the preset selected. The Fender CFC pedals are set to #7 and #11 so no adjustments are neccessary.

A MIDI Program Change message is sent out as a series or sentence. It includes status bytes, data bytes. Included in this message is something called a Bank Select message. Most foot use a bank select of 0 as they are designed for FEET and you are limited to what you can do with your feet. A MIDI synthesizer which uses a MIDI enabled Keyboard has several different sound banks in it for different instrument voicings (Up to 16) and these keyboards allow you to select which bank you want to access.

The CT Does something similar to this in that each set of amp designs is seperated into different "Banks" or sounds. Your MIDI Map is bank 0, Amp Collection = Bank 1, Custom Shop = Bank 2 and Player's Lounge = Bank 3. The Tuner is accessed by sending a MIDI Program Change message with bank 1, 2 or 3 bank select and a program change number 127.

Because the Behringer only sneds out program changes to bank 0, it's not possible to access the Tuner with the Behringer. The Fender sends out bank select 1 program change 127 when you push and hold the tuner button, so this is a design specific feature for the Fender CFC and really it's ONLY benefit over the Behringer.

Do not confuse MIDI Instrument banks (As in sound banks in a synthesizer or the sound banks in the CT) with the Fot Controller Preset Banks. Obvioulsy, with their only being 10 switches on the FC, you are limited to 10 program changes at your toes at any given time. Because of this, the "Banks" on the foot controller simply correspond to the TENS place in the MIDI Map. Therefore, when you have "Bank" 40 selected in the Fender CFC, Pressing switch 7 will send MIDI Program Change #47.

The Behringer is a completely different animal. It has 100 "Presets" with 10 Banks of 10 Presets. Each of these presets is capable of sending out 5 program change commands on ANY MIDI Channel (The Fender is limited to a single MIDI Channel) as well as 2 static CC messages (ie. CC #85 Value 0), a MIDI Note ON/OFF Message and it can also send out analog signals using two relay controlled switches for switching channels on analog amps.

Wow, that's a lot of stuff so far...

What this means is that although the Behringer doesn't have an Effects on/off button per se' you can set it where two of the preset buttons in each bank function as an effect on and effect off button using continuous controller CC #85 one button at value 0 and the other at value 127

This will soak up 20 of your presets, but you still get 80, and anyone who needs more than 80 presets during a gig needs to seek counselling from an effect doctor...

The CT comes from the factory with it's players lounge presets setup to respond to their respective MIDI program number.

For example, when the Behringer sends out MIDI change number 1, the CT calls up P01.

The MIDI map function in the utilities menu on the CT allows you to assign any MIDI program number to any preset inside the CT...

Example - You want Amp Collection number 14 (A14) to get called up when you hit button one on the Behringer. You simply assign MIDI program change number 1 to A14 instead of trying to save the patches you use in the Players lounge preset number that corresponds to the button you wish to use

Change the Cont. Controller setting in the utilities menu to number 14 rather than 11... This will get Pedal B running for ya.

MIDI Controller Numbers

The table below presents a summary of the MIDI Standard Controller codes in decimal and hexadecimal (h) form.

Decimal	Hex	Controller Name
0	00h	Bank Select (Controller # 32 more commonly used)
1	01h	Modulation Wheel
2	02h	Breath Contoller
3	03h	Undefined
4	04h	Foot Controller
5	05h	Portamento Time
6	06h	Data Entry MSB
7	07h	Main Volume
8	08h	Balance
9	09h	Undefined
10	0Ah	Pan
11	0Bh	0Ch
12	0Ch	Effect Control 1
13	0Dh	Effect Control 2

14-15	0E-0Fh	Undefined
16-19	10-13h	General Purpose Controllers (Nos. 1-4)
20-31	14-1Fh	Undefined
32-63	20-3Fh	LSB for Controllers 0-31 (rarely implemented)
64	40h	Damper Pedal (Sustain) [Data Byte of 0-63=0ff, 64-127=On]
65	41h	Portamento
66	42h	Sostenuto
67	43h	Soft Pedal
68	44h	Legato Footswitch
69	45h	Hold 2
70	46h	Sound Controller 1 (default: Sound Variation)
71	47h	Sound Controller 2 (default: Timbre/Harmonic Content)
72	48h	Sound Controller 3 (default: Release Time)
73	49h	Sound Controller 4 (default: Attack Time)
74	4Ah	Sound Controller 5 (default: Brightness)
75-79	4B-4Fh	Sound Controller 6-10 (no defaults)
80-83	50-53h	General Purpose Controllers (Nos. 5-8)
84	54h	Portamento Control
85-90	55-5Ah	Undefined
91	5Bh	Effects 1 Depth (previously External Effects Depth)
92	5Ch	Effects 2 Depth (previously Tremolo Depth)
93	5Dh	Effects 3 Depth (previously Chorus Depth)
94	5Eh	Effects 4 Depth (previously Detune Depth)
95	5Fh	Effects 5 Depth (previously Phaser Depth)
96	60h	Data Increment
97	61h	Data Decrement
98	62h	Non-Registered Parameter Number LSB

99	63h	Non-Registered Parameter Number LSB
100	64h	Registered Parameter Number LSB
101	65h	Registered Parameter Number MSB
102-120	66-78h	Undefined
Channel Mode Messages		
121	79h	Reset All Controllers
122	7Ah	Local Control
123	7Bh	All Notes Off
124	7Ch	Omni Off
125	7Dh	Omni On
126	7Eh	Mono On (Poly Off)
127	7Fh	Poly On (Mono Off)