



GSP1101 RELEASE NOTES

VERSION C48-C52



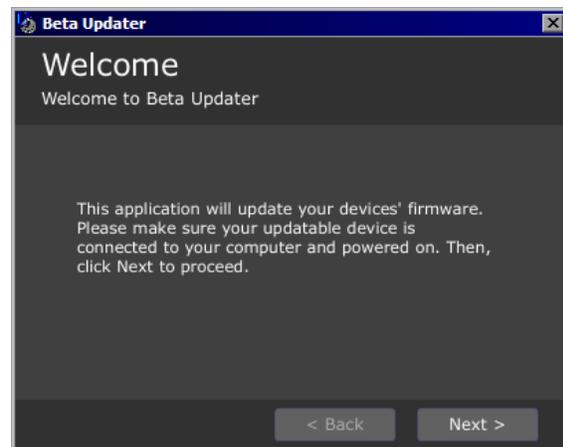
I. UPDATING YOUR 1101

You can obtain the latest firmware releases at www.mustbetabeta.com. To update your 1101, you will need the JUpdater application.



GSP1101 VERSION C52

To start the update, make sure your 1101 is connected to the computer and powered on. Then double click on the JUpdater application and click on next.

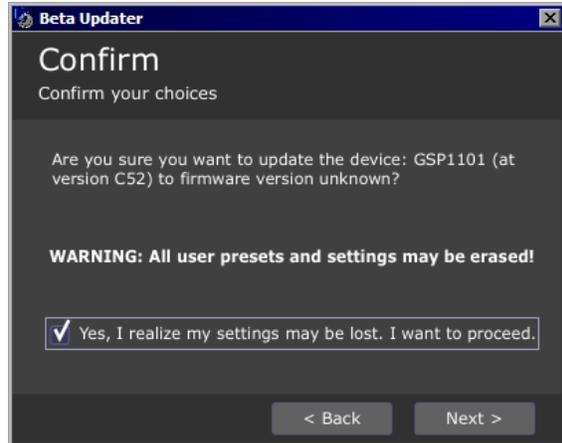


The software will then show you any DigiTech devices it sees connected to the computer. Select the 1101 you want to update and select next



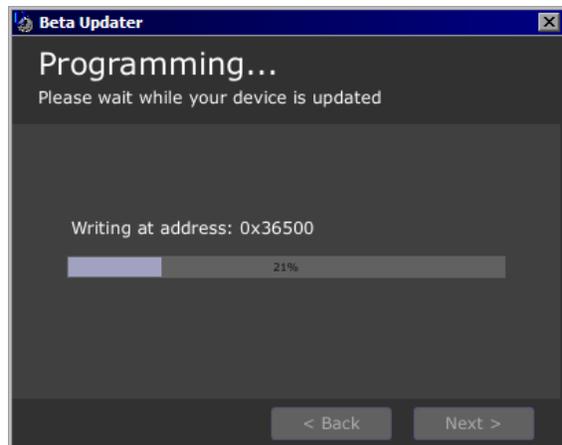
During the firmware update the device will perform a factory reset. The next window will warn you that any user settings will be lost. If you wish to back up your 1101 close the application start X-Edit and perform a backup. Then run the 1101 update again.

Check the Yes box and click next to proceed.

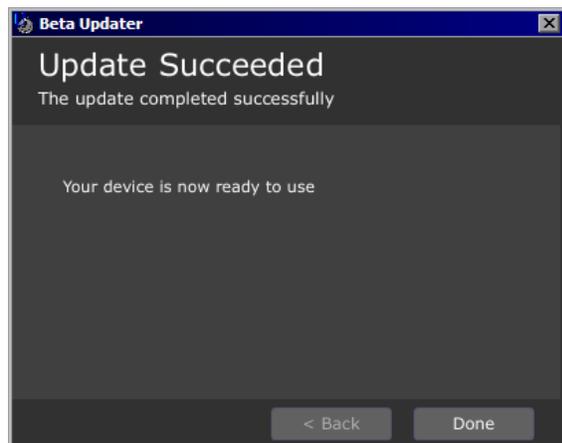


The application will now update your 1101.

Do not interrupt the updater at this point since it is writing firmware. If the update doesn't finish or is interrupted don't panic. You can put the 1101 into update mode by holding the tuner button while powering on. Then simply run the updater again.



Once the update is complete your 1101 will reboot and perform a reset. Once it finishes it will be ready to use.



II. NEW AMP AND EFFECTS MODELS

NEW AMP MODELS:

"94 MARK IV",
"04 TRIPLE RECTIFIED",
"MESA 22 CALIBER"
"MATCH CHIEFTAIN"
"SUPERGROUP",
"GA-40",
"OR-120",
"PV 5150 ",
"RG100",
"JAZZ 120",
"SOLAR 100",
"DIGITECH CRUNCH",
"DIGITECH MONSTER",
"DIGITECH TWEEDFACE",
"DIGITECH BLACK BASSMAN",
"DIGITECH STONER ROCK",
"DIGITECH DARK METAL",
"DIGITECH TRANSISTOR",
"DIGITECH BROWN SOUND",
"DIGITECH MOSH"

NEW SPEAKER CABS

"GIBSON 1X12",
"JAZZ 2X12",
"RECTIFIED 4X12",
"USER CABS"

NEW STOMPBOX EFFECTS

"REDLINE"
"TS MOD"
"AMPDRIVER"
"OC DRIVE"
"SD ODRV"
"3 BAND EQ"

NEW MODULATION EFFECTS

"GLISTEN CHORUS"
"SCATTER TREMOLO"

III. AUDIO ROUTING UPDATES

PRE/POST DYNAMICS

The compressor is now selectable between pre and post positions. In the pre amplifier position the compression was located right after the wah and pre FX in the audio chain. In this position the compression is only applied to the guitar input and the wah.

The latest software release now lets you set the compressor to the post amp position. In this position the compressor will affect the output of the amplifier as well as any pre gain effects or levels.



PRE/POST NOISE GATE AND IPS DETECTION

The noise gate now changes places depending on the mode of the loop on the 1101. This is set in the I/O setup. In the FX loop position the noise gate is now set for pre loop so you can use an external effects processor in the loop of the 1101 on and not have the gate kill the effect tails. In the external amp position the loop will switch to post loop to gate the noise from the external preamp. The detection circuit still remains pre loop in the position to avoid noise from the preamp opening the noise gate.



In effects loop mode the gate is before the 1101 insert send and after the amp model.



In the external pre-amp setting or external amp setting the noise gate processing is after the 1101 return.

The gate/IPS detection circuit can now switch between input and loop return. This is automatically now set loop return in wizard 5. This is located under the I/O setup section. The loop return setting should only be used if you are not running into the guitar input of the 1101 (using only the return). In the input setting the 1101 pitch and gate threshold are not affected by amplifier/effect coloration from units in the 1101's loop.



When the GATE/IPS detection is set to the guitar input (default), the 1101 uses the guitar input jack for better tracking and noise gate headroom.

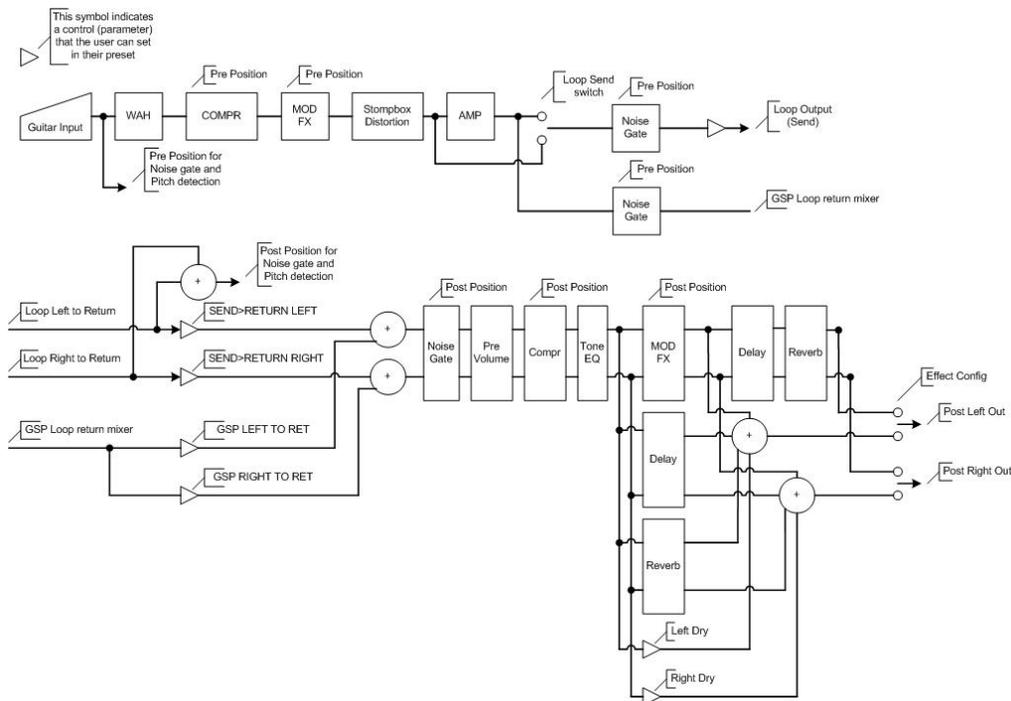


When GATE/IPS detection set to loop return (Wizard 5), the 1101 listens to the return for pitch tracking and gate detection.

Pre-volume is now always post noise gate (it will follow the noise gate pre or post send). In the previous release the pre volume control was post FX and in some cases ended up being pre gate when the FX pre/post parameter was in the pre position which could cause some issues.

EFFECT MIX PARAMETER UPDATES

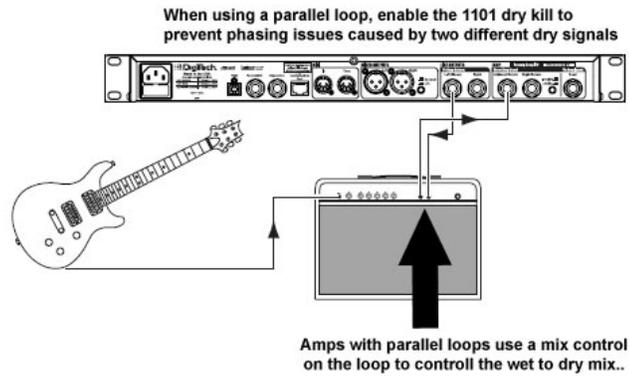
Each effect parameter now has an output pan/mix control for the wet to dry ratio. When the effect level is in the center, both the effect level and dry level are at 100 percent. Decreasing this control from the center position reduces the amount of effect signal. Increasing this control from the center position decreases the amount of dry signal.



In addition to the pan/mix control each effect also left and right output level controls. This allows you to pan your effects from left to right. Pseudo stereo effects will also mute their corresponding input when their output level is set to 0. This eliminates any bleed between the right and left channels when effects are hard panned.

DRY LEVEL CONTROL/DRY KILL

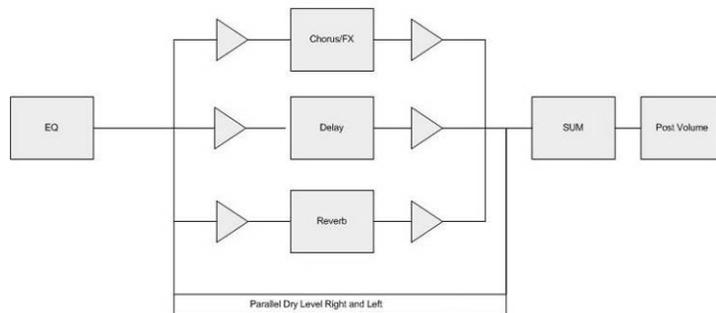
To get most effective use of the various 1101 effects such as volume and EQ we normally recommend running a series effects loop. However some amplifiers only have a parallel effects loop. The 1101 now has a feature to remove the dry signal from the loop return so you effects are 100% wet. You can access this feature under the effect/preset edit menu. When using an effect in a parallel effects loop, it is desirable to remove the dry signal on the effect. Otherwise the two signals will create an unwanted phasing effect due to the fact that one signal is slightly delayed. In this case your amplifier would provide its own dry signal which is parallel to effects loop. The mix between the dry and effected signal is adjusted by the mix control on the amplifier and the output level on the 1101.



PARALLEL/SERIES ROUTING

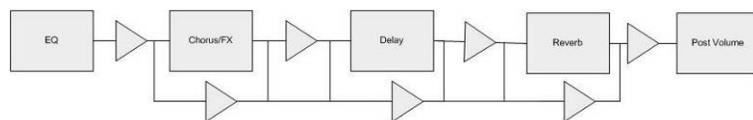
There is now a post pre-amp parallel effects mode with dry defeat! This is especially useful for users that have parallel effects loops on their amplifiers. This feature is located under the Edit Effects/Presets menu and Effect Config.

1101 Parallel Routing Configuration



The default is series which is the way the 1101 is shipped. Selecting parallel puts the chorus, delay and reverb into a parallel routing Configuration.

1101 Series Routing Configuration



LOOP CONTROL

There are now additional controls for the 1101 loop when it is active.

Loop returns, allow the user to switch sources between the left, right or both returns. The default is stereo which makes both inputs active. There is also an option for sum which will sum both left and right returns to mono. In some cases summing channels can slightly improve signal to noise by increasing the headroom 3db at the digital converter.

GSP Left/Right to Ret allows the preamp to be routed directly to the return internally. This is useful if you want to mix both a modeled amplifier with an external amplifier.

Send>Return Left and **Send>Return Right**, are level controls that adjust the input of level of the left and right returns.

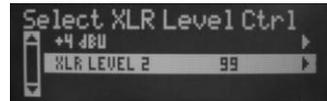
Loop Send allows you to bypass the amp model on the 1101 send when mixing **an internal and external amplifier**. **Amp** sends the amp model to the send on the 1101. **Distortion** bypasses the amp model on the send, sending only the stomp box output.

Loop Send Level is a level control for the 1101 send. The default is unity gain which is 99.



INPUT MUTE

An input mute parameter has been added to the delay and reverbs effects. With the 1101 you can change presets and keep the effect tails, some users wanted this inside a preset. Now with input mute parameter, you can keep the effect tails while bypassing an effect (no preset change).

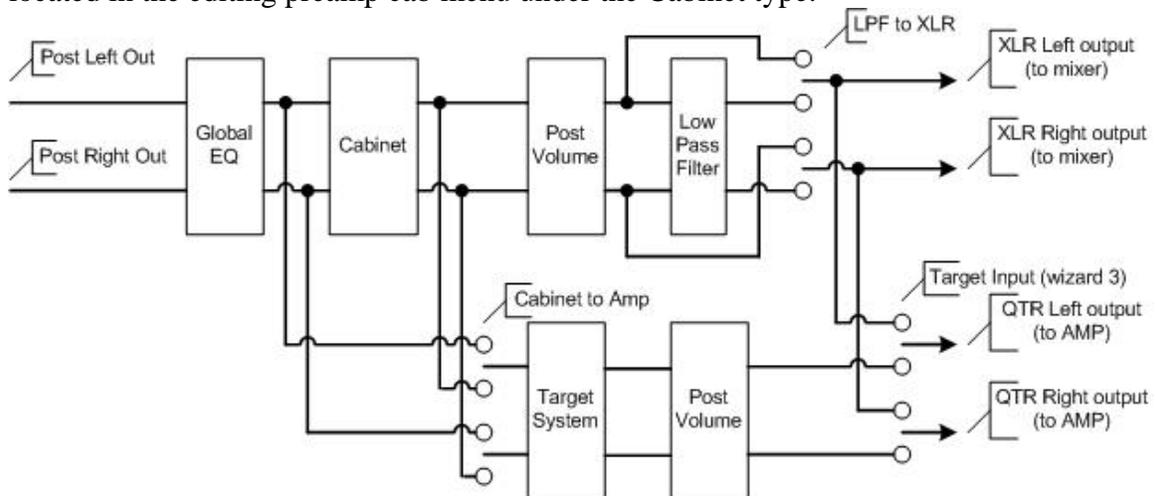


XLR LEVEL 2

An additional level control has been added to the XLR outputs. This is located under the I/O menu under XLR Level Control.

LOW PASS FILTER UPDATES

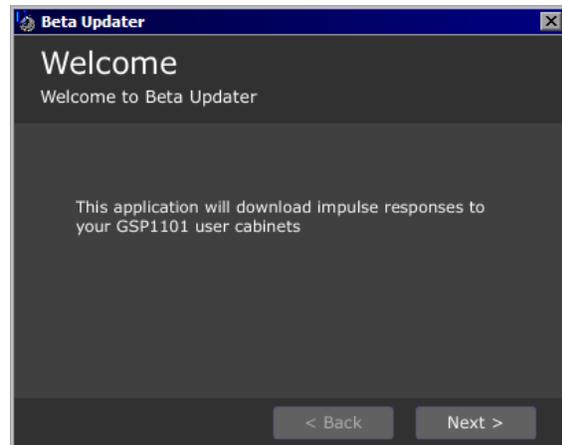
The 1101 features a low pass filter which allows you to run direct to a board or other direct guitar applications. The Low pass filter is linked to the guitar cabinet. When the guitar cabinet is disabled or set to direct or user cab the Low pass filter is disabled. By default the low filter is enabled for most cabs on the XLR outputs. This control is located in the editing preamp cab menu under the Cabinet type.



IV. User Cabs

The 1101 now features user cabs. This feature allows you to import impulse responses from you favorite guitar cabinets and use and store them on the 1101. Impulse responses are the acoustic finger prints of a cabinet sound and are useful in recreating a particular effect (in this case guitar cabinet emulation). The downloading app takes the first 128 samples (of the left channel) that it finds and applies these to both of the outputs. Therefore we recommend removing any 0's at the beginning of your impulse response with a sound editing application. You can also find Impulse responses online at sites such as recabi.net.

To import user impulse responses, you will need the Jcabinet updater application. Connect the 1101 to the USB port on your computer. Set the user preset to one of the user cabinet positions. Then start the Jcabinet updater application and click next.

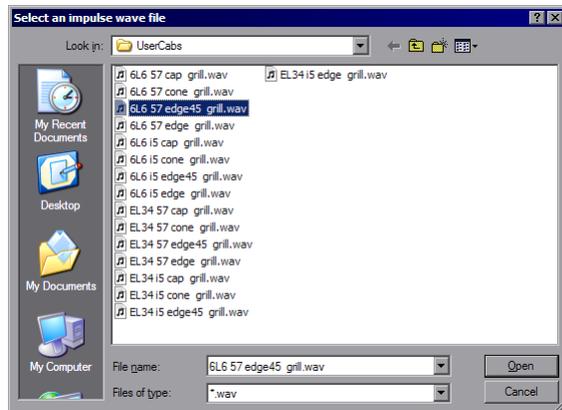
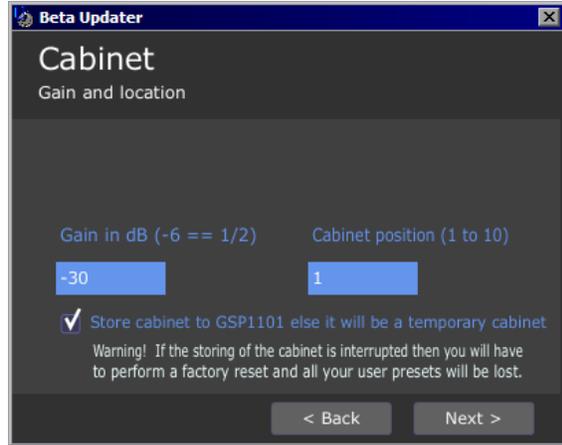


Select your device on the menu and click next.

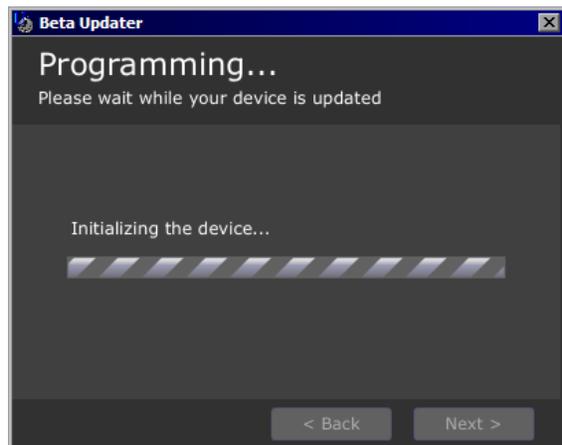


In the next screen you will be prompted for a gain setting and a cabinet position. **It is important to note that impulse responses can greatly increase the output gain on the 1101.** This is important to note because we don't want you damaging your ears or any other equipment. We recommend starting with a lower setting such as -30. There are 10 cabinet positions that you can store a cabinet to. You can audition any cabinet without storing it to the 1101 by leaving the Store Cabinet to 1101 unchecked. These unsaved changes will be lost if you change cabinets, change a parameter that alters the cabinet state or change presets on the 1101. Auditioning is useful because it is quick and doesn't require the 1101 to reboot.

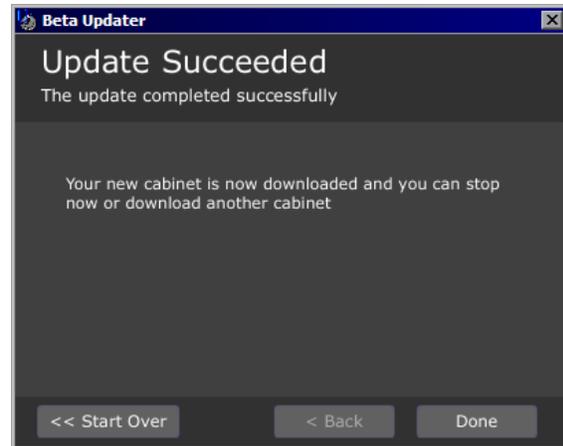
Select an impulse wave file and click open.



The updater will then load the cabinet to any program so you can instantly hear the effect of the new user. If you selected make cabinet permanent the 1101 will write the cabinet to flash and reboot. Once the unit has rebooted the cabinet will be available. It is important not to interrupt the unit while it is writing to flash. If this happens the unit may need to be factory reset which will result in the loss of your settings on the unit.



When the unit is finished downloading you can either close the application or select start over to download another cabinet.



Other things to note are the user cabinets work just like other cabinets and don't come out the 1/4" outputs unless you have the option turned on or you are using wizard 3. There is also new parameter in the amp menu that allows you to turn on or off the low pass filter. This can help with the user cabs sounding better depending on the source of the impulse response.

V. MIDI & CONTROL

MIDI OUTPUT MAPPING

The 1101 now has midi output mapping. This is located under the midi/controllers menu. This allows control 2 users to send different midi program change numbers than it receives which can be useful if you are using other midi equipment with limited or no midi mapping.

TAP TEMPO

The 1101 now accepts tap tempo via midi controller. To make this work, press the edit select once. Go to the midi/controllers menu and press select again. Scroll down to tap it CC and assign a CC number to the CC Tempo. To tap tempo now just send same controller number to the unit with a value of 127. For control 2 users this same CC (value 127) is sent out of the unit midi thru on the 1101 so you are able to send a tap tempo command to another unit such as a second 1101. Some midi controllers don't have momentary buttons so they toggle between 127 and 0. For these controllers you can select RCV CC as on/off for latching buttons and still have the same functionality.



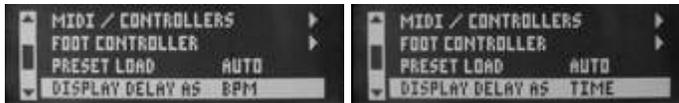
BEAT DIVISIONS

Beat divisions have been added to each of the delay types. These show up under the delay edit menu. The values are sixteenth, triplet, eighth, dotted eighth, quarter, quarter triplet, dotted quarter, half and whole note. The value default is a quarter note (1/4). These values may also be assigned to a controller such as the footswitch to change between values on the fly in a program. They are currently not visible in the X-Edit delay section but are available through the expression assignment menu in X-Edit.



DELAY TIME

Delay Time now can be shown in MS or BPM values globally. This can be selected under the edit menu.



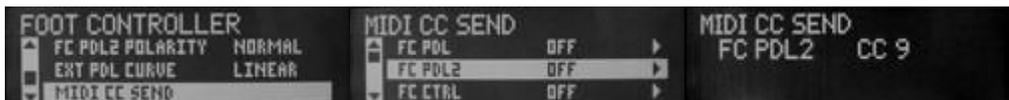
GLOBAL TEMPO

Setting the midi tempo to on will now activate global tempo between presets. Turning this on enables you to change presets in the middle of a song and have tap tempo track from preset to preset. Turning midi tempo off will disable global tempo allow each preset to have its own tempo. This is located under the Midi/Controllers menu.



CONTROL 2 PEDAL 2 UPDATE

Like the Control 2 Pedal 1, the Pedal 2 on the Control 2 and the 1101 expression pedal can now send midi controller out of the midi thru. This is located under CC send in the Foot Controllers menu.



CONTROLLER UPDATES

An option has been added to send the midi CC send menu for the Control 2 stomp box buttons and toe switch so they can be reassigned to work like a midi controller. This assignment is located under the Edit/Foot Controller/Midi CC Send menu.

The menu is labeled as follows"

Distortion= FC FSW6



Chorus/FX=FC FSW7

Delay=FC FSW8



Reverb=FC FSW9

Control 2 Toe Switch=FC TOE

FS300 UPDATE

CC send menu has new functionality that allows you to use the FS300 to send midi as well as the other top row of buttons on the Control 2 and the Control 2 toe switch. This assignment is located under the Edit/Foot Controller/Midi CC Send menu



Control 2 Toe Switch=FC TOE

FS300 Left button=EXT LEFT

FS300 Middle button=EXT MID

FS300 Right button=EXT RIGHT

CC INTERNAL ROUTING

The 1101 now has the option of sending a CC assigned to any of the Control 2 or FC300 footswitches internally as if it received that command from a midi controllers. Setting this route internally will remove the default function of that particular switch.

For example you want to assign the Control 2 Toe Switch to turn on an EQ. You would go to the foot control menu select CC Send. Assign the Toe to send Control#6. Then under the CC send menu, go to the CC internal routing menu and set the Toe to yes (routes the command internally). By selecting yes you have also disabled the wah switch so only the parameters set to receive Midi CC 6 will respond. Next simply assign controller number 6 to the EQ on/off in the expression links of your preset. Now when

you toggle the toe switch, the EQ will turn on and off. At the same time, the 1101 would send midi CC6 out of the midi thru jack on the 1101 to you other equipment.

V-Pedal Controller Assignments

Assigning Pedal 1 to expression links 7 and 8 will now create a link to the V-pedal the control 2 Toe switch is active. Many users wanted to freely assign the function of the V-pedal and toe switch. Now they can with this feature.

Momentary Footswitch

Any of the stomp box switches on the control 2 and FS300 now have the option of acting as a momentary control instead of a latching control.

Skip Factory

When this feature is enabled it disables access to the factory preset bank from the control 2. This allows users to skip over the factory bank and go directly from user patch 1 directly to user patch 99. The user programs are still accessible in this mode through the 1101 front panel controls.

FC Bank Naming

This feature allows you to give names to each of the user banks. To name a bank simply select the bank you wish to name. Enter the bank name and press the select knob. The Control will now show the new bank name when scrolling through banks.

Switch Rows

This feature simply moves the function of top row buttons to the bottom row on the Control 2 and vice versus.

TUNER ACCESS VIA MIDI CONTROLLER

You now can access the tuner via midi cc sent to the 1101 with a value of 127. This function is located under the midi/controllers menu. Selecting a CC number such as will make the 1101 go in and out of tuner mode when the matching midi CC is sent to the 1101 midi input with a value of 127. Some midi controllers don't have momentary buttons so they toggle between 127 and 0. For these controllers you can select RCV CC AS as on/off for latching buttons and still have the same functionality as a momentary controller.



CONTROL 2 WAH MIN/MAX

The wah now features a minimum and max range limit for the Control 2 pedal 1. To set this, just edit the wah and scroll down to FC PDL1 Min and Max to set the range.



SYSEX BULK DUMP

Sysex Bulk dump has been added. This is located under the midi/controllers menu. This feature allows you to dump programs and settings directly from one 1101 to another. Simply connect the midi thru of one 1101 to the midi in of the next. Choose Midi Bulk dump on the menu and select yes. The first unit will begin dumping its programs to the second unit.



VI. IMPROVEMENTS

PROGRAMMABLE BYPASS

This new feature allows you to bounce back to program 99 on bypass. The difference between this and standard bypass is that you can program patch 99 for any specific routing etc. that you want to occur when the unit is bypassed.

SIGNAL INDICATION/METER

There is now an option to enable Input Meter. Turning this on will show you a meter on the LCD so you can see when the 1101 is receiving signal even if the output is turned down. This meter follows the GATE/IPS detect circuit. So it is set as a loop return meter in wizard 5.

RESET LEVELS ON RESTORE

This feature is for users updating from any beta software version. This simply resets the routing and dry levels and to match the new software routing. This will save you time in editing each preset when updating from a previous version. This will reset to no automatically after the restore or on a reboot.

PEDAL POLARITY

Switching polarity has been added for the two expression pedals under the foot controller menu for users that have a reverse polarity expression pedal such as a Yamaha expression pedal. Now you can switch the polarity in one place globally for all your programs.



EXPRESSION PEDAL RESPONSE CURVES

There is now a setting to different response curves for the 1101 expression pedal. We found that many volume pedals act smoother with the linear setting and other CV pedals tend to work smoother with the squared setting.



WAH NOW DEFAULTS TO -6dB

Some users found the wah to be too loud when used with some amp models. Since previously the minimum volume was 0 there was no way to turn the wah down. Now the minimum output on the wah has been lowered from 0 dB to -6dB. The wah still has a maximum output level setting of 12dB.



SWITCHING SPEAKER COMPENSATION

Speaker compensation is now disabled on the XLR, 1/4 and headphones in wizard 3 when using the direct speaker cab selection. This removes the compensation for acoustic guitar models as well since they default to using direct as their speaker cab selection.

HARMONIZER/WHAMMY UPDATES

Harmonizer, pitch shifting and Whammy effects have had several improvements and now offer better tracking. Note the guitar must still be in tune to track the correct notes.

The harmonizer now also includes more interval selections such as seconds and sevenths.

GUITAR TUNER UPDATE

Tuner DSP algorithms have been updated to match those of the hardware series for better tuning accuracy.

PEDAL MEMORY UPDATE

Pedal memory (volume update) now works with midi CC's and the Control2.

UPDATED PRESET CONTROLS

The Control 2 now works out of the box with out to control the pre-volume control. The factory presets have been updated to include Pedal 1, Pedal 2, Expression Pedal, and CC7 to control pre volume.

V. BUG FIXES

Fixes since C48

- New IPS Pitching algorithms and Tuner update
 - Post volume now works correctly with the direct cabinets on the XLR outputs.
 - 6db addition makeup is now available on the compressor.
 - Output of PEQ stompbox no longer boosts the signal.
-

2.0 C48

- Fixed Synth-talk default left/right levels
- Fixed memory corruption when naming a bank
- Took out limit for the USB playback mix
- Loop send (distortion or amp) always sends distortion if the loop type is not FX LOOP

Previous

- File system issues caused by using the front panel and using X-Edit at the same time have been fixed.
- The elusive X-Edit copy and paste bug has been fixed which could cause the file system to become corrupt

- Midi clock forcing the delay times out of bounds on the analog delays has been fixed.
- Minor file system fixes for the naming dialog.

- Fix for control assignments that link both to pre/post volume and wah pedal

- Stomp box names have been corrected.

- Fixes for the midi thru so correct data is sent

- A bug where audio fade or loss of audio could occur has been fixed through optimizing the DSP code.

- All system parameters and foot controller settings are now store when you do a system backup.

- Volume update now works correctly when exiting tuner and changing presets

- The tone controls have been fixed on the new amplifiers.