



# *Guitar Rig 3*



## MULTIPLE MODIFIERS

MINI TUTORIAL II



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# Welcome to the second issue of our ongoing series of Mini Tutorials!

In this Mini Tutorial we will dig deeper into the possibilities of controller assignments, explaining how to set the range of alteration mapped to the inputs and how to assign multiple functions.

# Controller Inputs and Value Changes

First, let's take a quick glance at how controller inputs are handled. This depends on whether you change the position of your pedal, which will create gradual value changes, or trigger a button, which only sends its two states "on" and "off".

Regarding buttons, consider the following difference: There are switches, which are permanently on or off (often indicated by an LED), and toggles, which are sending the "on" signal only while the button is being pressed. You can change this and some other characteristics to fit your external controller under OPTIONS > PREFERENCES > EXTERNAL SWITCH MODE.



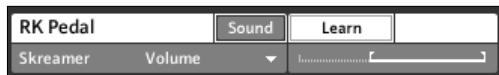
# Assigning Settings to Switches, Knobs and Pedals

Pedals or knobs, when moved, send the value of their position between 0 and 127. Switches and toggles can only transmit the boundary values of this range, with 0 meaning “off” and 127 meaning “on”.

All assignable settings in GUITAR RIG have these same two characteristics: Either they can be switched on or off, or they are gradually adjustable. When controller and setting of the same type are linked, behaviour is just as expected. For example, a knob on your controller, when assigned to the gain-setting of your amp, will be mapped to its complete range. When that same knob is assigned to an effect's on/off button, it will operate that button when crossing the 12 o'clock position, because values exceeding 64 are interpreted as “on”. Finally, when a switch has been assigned to a gradual setting, operating it will cause the setting to move from zero to fully cranked, because the values of either 0 or 127 are transmitted.

# Setting the Range of Value Changes

The standard behaviour described on the previous pages may be unpractical in some situations: Suppose you want to switch between two different phaser rates, or use your pedal to explore gain settings just between overdrive and high gain. Fortunately, this behaviour is easily adjustable, once again by visiting the **Controller Page**:



You see a slider for each slot (unless it is currently assigned to the functions Snapshot, Sound or Bank selection), situated below the **LEARN** button. The horizontal line represents the range of values being mapped to the specific controller input, delimited by small brackets on either side. You can easily drag these brackets around to adjust the range of each controller slot. Set the values to customize the effect of your pedal or to be able to switch between them using a button. The two cells above the slider will always tell you the exact value represented by the bracket you are currently dragging. The lower value corresponds to your pedal in the “up” position.

It is also possible to flip the two brackets by simply dragging them over to the other side, resulting in reverse behaviour. Play around with this feature to find out what it can do for you!

# Assigning Multiple Functions Using Modifiers

OK, so now you can assign every relevant function of GUITAR RIG to your controller, and you can tweak its range to match your needs. Remember that you can also take snapshots of complete set-ups for your current rack. But what if you want to have more flexibility, for example to switch more than one effect with one stomp? Or change the position of more than one knob with your pedal to blend over between two sounds? There is actually a very elegant solution for these scenarios.

Please be aware that we're now moving away from standard controller-assignments to use a feature of GUITAR RIG that yearns for exploitation not only in the direction we are taking. We are now talking about Modifiers!

Modifiers generally enable you to link external value changes with one or more of the settings in your rack. You can find the available modules that can be used as modifiers under COMPONENTS – MDF. Try dragging their ASSIGN button to any knob to see how they work! Build your own tremolo effect in seconds by linking your volume control to the LFO module – and this is just a mere example of the possibilities of this feature.

In GUITAR RIG 3, modifier links can also refer to any controller input, allowing multiple assignments of inputs as well as effects. This is done by right-clicking any knob, selecting *Modifiers* and setting the controller input of choice to any effective ratio between -100% and 100%. Negative ratios will result in inverse behaviour. Note that modifiers will always affect the setting relatively to its basic position, whereas the **Remote** function overrides the original setting with an absolute value! Setting the ratio to 0% will remove the according link, selecting *Clear All* below *Modifiers* will remove all assignments for this particular knob.



## Example – Crossfading Between Sounds

So let's try this out: How about having a simple crunchy sound and being able to transform it into psychedelic delay using your controller's pedal? You can set up the rack with any amp and other modules after your fancy, but it should at least contain the **Skreamer** and the **Quad Delay**.



As a basic setting, the amp itself should produce a clean, fat sound. It is best to turn off the delay for now to avoid distraction. Set the **DRIVE** knob of the **SKREAMER** to a desirable level - you should hear that nice crunchy sound now when you play. Turn the delay **FEEDBACK** and its **DRY/WET** knob to 50% as a basic setting for the effect sound.

Right-click the **DRIVE** knob and select the **RK Pedal as a modifier by moving its slider** to minus 100%. This will reduce distortion while you blend over to the effect-sound and give the latter a distinctive characteristic. If the pedal was pressed while you set the modifier, you may have noticed a second line appearing on the knob, marking the maximum effect it will have.

Another modifier should be linked with the **MASTER VOLUME** of your amp and set to a positive value that compensates the loss of volume you have by turning down the **SKREAMER** when you press the pedal. Try to operate the modifier setting while playing around with the pedal to get the results you want!

Now turn on the **QUAD DELAY** again! Add a modifier to its **FEEDBACK** knob, setting the pedal to plus 60%. To let the delay ring while you blend over to the crunchy sound, we use a nifty trick: Press the **MUTE** button that bypasses the input without muting its output, then add the pedal as a modifier with minus 100%. It will now trigger that function when you the pedal is half-way down – note that the button won't change state, but its function will!

Operating the pedal, you should finally see all the knobs turning the way you want them to. When trying out this setup, consider the dynamic effects it can produce when you change from one sound to another.