AXE-FX II - take it for a spin
...the tutorial for Greenhorns

A FEW WARM WORDS OF WELCOME

You may well be asking yourself just who this tutorial is aimed at. Well, you've probably already been to our website, visited our Support Page and downloaded the Axe-Fx II manual, but if after a quick browse through it your first reaction was of the "Ohmygawd" type, you really don't know how to begin to understand what this thing is capable of and you feel like you've bitten off more than you can chew, then this tutorial is perfect for you. We'll soon have you up and running.

If, on the other hand, you've had success with multi-effects devices before, or you have owned an original Axe-Fx and knew your way around it, then you need read no further. Unless you want to, of course.

We don't want to try to replace the manual and we certainly don't intend to repeat everything that's written in it. We do, however, want to help you make the most of the manual, by providing you with the knowledge that you are missing at the moment, exactly that knowledge that will allow you to understand what the heck the manual is talking about.

So, we're going to take a look at what happens to your guitar tone when it passes through the Axe-Fx II, adjust an existing sound to suit your needs and preferences and then, if you want to, we'll save it so you can call it up again whenever you like. Of course, while we're doing this you'll learn all about just what a saved sound is and what it consists of.

FIRST STEPS

So, there you are with your brand new all-singing, all-dancing Axe-Fx II. Somehow you've managed to connect everything up and it even sounds okay. You've probably fiddled about with the large value dial and called up a few different sounds. But what now?

Let's take a closer look at the very first of the factory preset sounds. (Later we'll talk about just what a factory preset actually is.) This sound is called '59 Bassguy' and it simulates a famous classic amp whose design is now over 50 years old. The preset's number is '000', though it's possible that on your unit it says '001' - that doesn't matter. In the manual you can read about how to adjust whether the Axe-Fx II starts counting at 0 or 1. For the moment we'll just leave things set up the way they are.

Switch your Axe-Fx II on and wait for the LED self-test to complete. The normal 'Recall' display, which enables you to call up preset sounds, is shown on the screen. Of course, there's no need to turn your Axe-Fx II off and then on again to get to this page. If you happen to get lost in a menu somewhere simply do the following: press the **RECALL** button, then the **< PAGE** button a couple of times and you will be definitely be right there.

Perhaps a different patch is selected at the moment. The Axe-Fx II remembers which sound was last used and calls it up automatically when it is turned on. Simply turn the value dial to the left until nothing more changes and you've found the first sound.

The screen on your Axe-Fx is now displaying '000' (or '001') and '59 Bassguy'. (In this tutorial the words 'display' and 'screen' will always be synonymous.)

On the screen you will see that '59 Bassguy' appears twice. Don't let that worry you. The first 70 factory presets are there to introduce the various amp simulations available in the Axe-Fx II and therefore bear the names of the amps they use. The Recall screen shows the name of the patch (which is freely editable) in the box at the bottom of the screen, while the selected amps are shown next to AMP1 and AMP2. For the moment let's ignore the information below 'SCENE' – the manual will tell you all about that later. Hook up your guitar and play a few notes, to gather a bit of strength for what is about to come. Do you like the sound? You'll have the opportunity to alter it during this tutorial.

Now press the **LAYOUT** button to get to the LAYOUT display. Has it worked? The name of the display is always shown in the top left corner of the screen, so you can check it there.
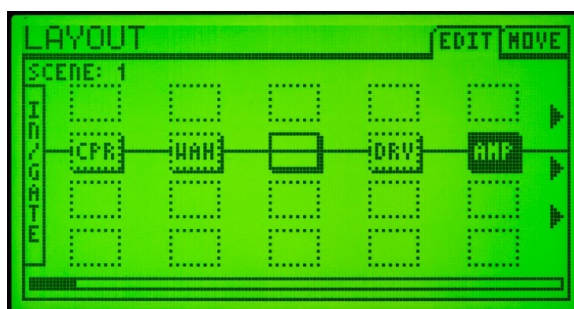
Now look at the rest of the display's top line. You'll see EDIT and MOVE. These tabs show the names of the pages contained in each display. Press the **PAGE >** arrow and then the **< PAGE** one to get used to moving between the available pages. Then press the page left arrow again to make sure the EDIT page is active again – we need it now.

**THE SIGNAL CHAIN IN THE AXE-FX II(XL)**
Now let's take a closer look at this layout display. What you see here is a graphic representation of the signal chain for this particular sound in the Axe-Fx II. On the left we have INPUT and this is where the sound of the guitar comes in. Well, actually there's a little bit more to it than that. You have almost certainly attached your guitar cable to the **INSTR** socket on the front panel, haven't you? This is a mono input – your guitar is also mono – and it is connected internally to the Axe-Fx II's left input. This is why only the left input LEDs light up when you play the guitar. Of course, you could also feed the Axe-Fx II with a stereo input; the connections for that are on the back and how all that works is explained in the manual. Your guitar tone is now transformed into a digital signal and arrives at the INPUT section of the layout display. This input is stereo, however, so by default your guitar tone is set to be in the middle of the stereo panorama, meaning that the same volume goes into the left channel as into the right. Of course, you can change all of this if you need to, but explaining how to do that would go way beyond the scope of this tutorial, so we'll just stick with the default settings.

To the right of the input is a small box with CPR written in it. As you may have guessed, this represents a compressor simulation. Like the three blocks to its right, this one has a dotted perimeter, which means that currently the block is bypassed, i.e. turned off. In the layout display the signal always travels from left to right, so in this case it then goes into a box called WAH, which is short for WahWah pedal. After this there's an empty block. This kind of block is called a 'Shunt' and we'll take a closer look at this later. Then there's a bypassed drive pedal (DRV) and finally an AMP, which is the guitar amp simulation.

Now we want to switch on the distortion pedal to see how it sounds, but first we need to navigate to it. Try using the four **NAV** arrows to see what happens. When you've practiced moving about a bit navigate to the DRV block. Now press the **FX BYP** button – this stands for 'Effects Bypass'. The drive is turned on and you'll notice that it now has a solid perimeter. Simultaneously the EDITED light comes on. More on that later. Play a while and then press **FX BYP** to turn the drive off again.

On the right of the display there are three arrows pointing to the right. These indicate that the display continues behind the edge of the screen. Press the right arrow button a few times to see what happens when you reach the edge of the screen and go past it. Play around with the right and left arrow buttons and keep an eye on the scroll bar at the bottom of the display. The narrow black rectangle at the bottom always shows your current position within this display. The complete routing grid has 4 rows and 12 columns, whereby only 5 columns fit on the screen at any one time.

In the grid to the right of the amp there is a loudspeaker cabinet (CAB). As you already know, its solid perimeter indicates that it is activated, just like the amp block. Then there is a chorus (CHO) and a flanger (FLG), both of which are currently bypassed. On the far right you will see a delay block, marked as 'DLY'. Use the **NAV** arrows to go to it, turn it off (**FX BYP**) and listen to the difference. Then turn it back on again.
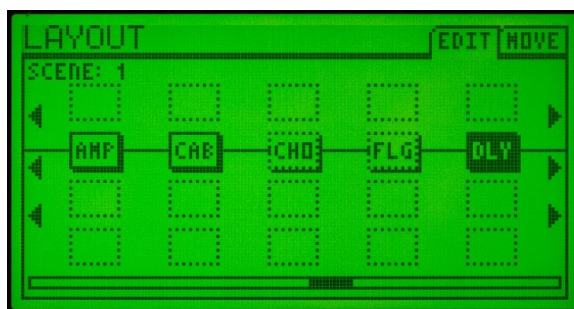
The routing grid is an important element in the concept of the Axe-Fx II. You can think of it as simply being 24 plug-in positions. Each position can hold a 'block', i.e. an effects module. This can be an amp simulation, a chorus or any of the numerous other effects modules that the Axe-Fx II has to offer. The signal chain always runs from the left to the right and the black lines that you can see between the blocks are just like the cables you would use to join stomp boxes together.

Let's take a look at what happens when one of these cables is missing. Go to the CHO (chorus) block. Now press the **ENTER** button. Both the CHO and FLG (flanger) blocks now start flashing on and off, as if they were worried you might cut their connection. This fear is justified: press **ENTER** again and the 'cable' between the two blocks disappears. Play something on your guitar – as you can hear, you can't hear anything. Well, without a cable it can't work, can it? Obvious really, but something that's very important to keep in mind. Later, when you start building your own patches you'll notice

that forgetting a cable somewhere is the most common mistake of all (It happens to *all* of us now and again).

Now let's quickly put this vital cable back where it belongs: go to CHO and press **ENTER** again. Once again, both CHO and FLG start blinking, this time in happy anticipation of being reunited. Keep them waiting a bit though and press the up arrow button. As you can see, the connection candidate changes to one row higher. Connecting to this field wouldn't make much sense at the moment, as there is nothing there, but in principle every field can be connected to any or all of its neighbors to the immediate right or left. Press the arrow down button to return to the FLG block and then press **ENTER**. The cable is now back where it belongs.

Now let's take a quick look at how the signal chain continues. After the delay there is a block called MTD, which stands for 'Multi-Delay'. Then there's a 'Rotary' block (ROT) and finally a reverb block with the fairly obvious name of REV. Try turning these blocks off and on and listen to the difference they make to the sound.

In addition to the blocks used in our current preset the Axe-Fx II has many more, but you can read all about them in the manual. However, there is one very important block type which we do need to mention here. This block has no name written in it and is called a 'shunt'. Shunts do exactly what it looks like they would do – namely continue the connection from left to right without having any affect on the sound. Their only function is to complete the chain from the Input on the far left to the Output on the far right, so they are obviously very important if you don't need so many effects blocks in one patch.

Let's try this out: go to the MTD block and turn the **VALUE** dial. For now the direction is unimportant. See how the available effect types are shown in the middle of the screen. Keep turning the VALUE dial until you see SHUNT and then press ENTER. Now we have replaced the multi-delay with a shunt. If at first you have problems finding the shunt, here's a tip: turn the VALUE dial clockwise. The effects are then shown in alphabetical order. After the 'WahWah' comes NONE (no block) and then SHUNT, before the list starts from the beginning again with AMP. If you would rather not change the block, press **EXIT** instead of **ENTER**.

On the far right of the grid is the OUTPUT. Press the right arrow until you can see it for yourself.

Remember: INPUT and OUTPUT must be connected to one another somehow, otherwise you won't hear anything. There is only one exception to this rule: when the **BYPASS** button is pressed (not to be confused with **FX BYP**!) the whole device is bypassed and the output signal is identical to the input signal. So, if at some point you have the feeling that your Axe-Fx II isn't doing anything and all your patches sound the same, check to see whether the light on the **BYPASS** button is flashing and the word 'Bypassed' is flashing on the screen…

Now press the **RECALL** button to return to the sound selection display. You may have noticed that the EDITED light is lit. This lights up as soon as you change anything in the current patch, which you have done. You have turned individual effects blocks on and off. The LED also lights up when you turn the **VALUE** dial while in an effect or control menu. It remains lit until you have saved the sound or selected a different one.

PATCHES, PRESETS, SOUNDS AND STUFF

Meanwhile we have used so much jargon that it might be time to do some explaining. By studying our '59 Bassguy' sound you've already seen how the guitar signal flows through the Axe-Fx II. Amp, cab, chorus, etc. As you have probably guessed, you can arrange this signal flow quite freely. And once you have finished you can save it.

The Axe-Fx II has 384 memory locations available, while the XL has a whopping 768. In each one of these locations you can save a complete layout with all its virtual wiring, etc. The status of the individual effects blocks (bypassed/on) is also saved, of course. But there's more. The settings for each of the control pots within the effects blocks (we'll be taking a closer look at these in the next section) are also saved. In an amp block, for example, these are the pots for Drive, Bass, Mid, Treble, etc.

And such a finished sound that has been saved to a memory location is called a patch. Sometimes the word preset is used, but generally this refers to the ready-made works patches installed on the unit at the factory. These works presets are purely sound suggestions that you are free to change at any time and are primarily intended to give you an idea of what the device is capable of. Each of the 384 locations (or 768 in the XL) is equal and all of them can be altered as much as you like. Should you wish to return to the factory presets at a later date you can easily do so. Just go to our support page (the address is on the first page of this document) and download Fractal-Bot, the super-easy app for transferring presets, firmware, etc. to and from the Axe-Fx II.

Perhaps you have also heard the word 'bank'. Banks were invented partly because when you are working with so many patches it can be easy to lose track of what is where. Things are simpler if the patches are divided into groups. In the Axe-Fx II there are three of these groups, A, B and C and each one has space for 128 patches.

Generally it is irrelevant in which bank a particular patch is saved, but if you want to use the Axe-Fx II live you need to be aware that many Midi foot controllers can only use one bank at a time, and some are limited to using the first bank. This means that in many cases you can only call up the first 128 sounds (the first bank) with a Midi foot controller. The optionally available Fractal Audio MFC-101, which is the perfect companion for your Axe-Fx II, can of course call up all your patches.

LETS SUM UP

Your complete cabled-up virtual rig, with amp, cabinet, effects and all the associated settings, is saved in the Axe-Fx II. This is called a patch. The Axe-Fx II can store up to 384 patches, organized in three banks of 128 patches each. The XL can store 768 patches, organized in six banks. At the beginning these locations are not empty, but are occupied by factory presets, which can be changed as much as you like.

If you want to build a new sound from scratch, without the distraction of having to adjust settings from a works preset, you can use the 'Bypass' preset in the very last memory slot in the Axe-Fx II. This is completely neutral, as it consists entirely of shunts, which you simply have to replace with the effects blocks you want to use. So, after all this theory it's time for a break. Choose a nice preset and play your guitar for a while until you feel like reading some more.

EDITING PARAMETERS

Let's get back to our basis patch. Press **RECALL** and turn the **VALUE** dial to the left until you reach the '59 Bassguy' preset. Press **LAYOUT** to call up the layout display. Then navigate to the amp block and press **EDIT**. We are now going to experiment a little with the amp block's parameters, in other words we are going to edit the amp block. With the other effects blocks the principle is exactly the same: you simply select the desired block and press **EDIT**.

Most of the blocks have so many parameters that to keep things organised they need to be spread over several pages of the display. The good news, though, is that the most important parameters are always on the first page. In the Amp block this is the 'TYPE' page, where you can select the type of amp you want to use.


If your display isn't showing PG1 at the moment, press the **< PAGE** button until you come to the first page.

In the picture above you can see a long list of available amp models, with '59 BASSGUY' selected. By turning the **VALUE** dial you can select a different amp type for the simulation. Try it out.

Go through some of the amp models and try playing your guitar through them, just to get an idea of their basic sounds. Remember, however, that you will need to spend a fair bit of time with any amp model and to adjust a few parameters to get the most out of it. Just like you would with a real amp. Generally it can be said that a low-gain amp will sound better with relatively low levels of drive, while a high-gain metal amp with the drive set to 1 probably won't knock your socks off. But here we are only interested in getting a first impression. The list is much longer than the screen can show, so you will need to turn the **VALUE** dial quite a bit to get to the end of it.

On the right of the screen you will see three knobs for 'DRIVE', 'MSTR' (Master Volume) and 'LEVEL'. You can adjust these using the **QUICK CONTROL** knobs **A**, **B** and **C** on the front of your Axe-Fx II, just as the display indicates. DRIVE, MSTR and LEVEL also appear on pages further to the right in their 'natural surroundings'. The quick adjustment option here was merely added for the sake of comfort.

We are now going to take a look at the other 'normal' controls that you would also find on most real amps, most of which can be found on the second page of the Amp block, titled 'PRE'. Use the **PAGE** arrows to navigate to this page if it is not already showing.
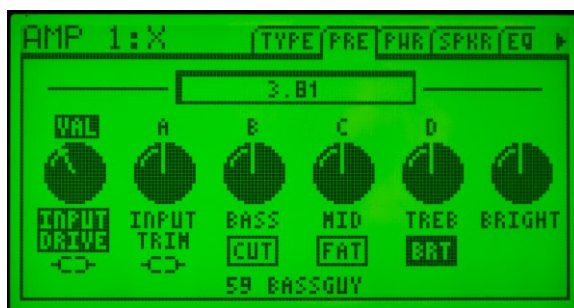
At the top left of the screen it says 'AMP1'. In the Axe-Fx II you can use two amps simultaneously and if you are only using one it is automatically set to number 1.

Now let's take a look at the four 'normal' controls that you would find on most real amps: Drive, Bass, Mid and Treble. In the picture above you can see that the 'INPUT

DRIVE' pot is selected and 'VAL' is written above it. This means that the **VALUE** dial is currently assigned to this control. If you now turn the dial, the value of INPUT DRIVE will change. You've probably guessed what effect this will have: it's the drive control for the amp's preamp section. The other controls are marked with the letters A to D. These correspond to the four smaller control pots on the front of the Axe-Fx II. This means you can quickly adjust five parameters without having to use the navigation buttons.

The **VALUE** dial assignment can be adjusted with the **NAV** arrow buttons. Go to DRIVE and try turning the dial. Then try it with the three tone controls. See how the assignment of the four ABCD controls always changes accordingly?

You'll notice that the dial and the four control pots have very low-ratio 'gearing' – you have to turn them a long way to adjust the control pot a little bit. This allows for accurate fine-tuning. However, what happens when you want to adjust a control quickly? Try turning the dial very fast to the left or right, to reach the maximum or minimum setting. You will soon see that the dial has a kind of 'brake' built into it and that the fastest method of adjustment is not to turn it very quickly but at a medium speed. Experiment with it a little to get a feeling for it.

Some amps have a switchable 'Bright' circuit, which provides an extra portion of highs without affecting the rest of the tone controls. The amp simulations in the Axe-Fx II naturally have this switch as well. Go to the TREB control. Can you see BRT written below it? That means that this preset was saved with the bright switch turned on. Press **ENTER** and listen to the difference in sound. Press **ENTER** again to reactivate the bright circuit.

Below BASS and MID there are also such switching functions. Select these parameters and press **ENTER** to turn them on or off and see for yourself how they affect the sound.

Now go to the third page, 'PWR' (press **PAGE >**). This is where the most important power amp controls can be found. The PRES parameter equates to the presence control on a normal amp, i.e. it controls the upper high frequencies. MSTR is the master volume control and defines how much power stage gain the amp produces.

Of course the amp gets louder when you turn this control up, but you can reduce the volume with the LEVEL control, which basically controls the output volume of the whole amp block. This means that you can get the sound of a fully cranked tube amp at bedroom volume levels (though there is still no substitute for moving a lot of air…). Try out these three controls and listen to the effect they have.

The 'TUBE TYPE' parameter is something special on this page: it may look just like any other control pot, but it doesn't function on the principle of 'to the left for less, to the right for more', but rather like a rotary selector switch. You can use it to select the type of power tubes used in the power amp simulation. The position of the marking on the control simply shows which end of the list of available tubes you are nearest to. The Axe-Fx II has many lists that can be looked through with a rotary selector.

The next page, 'SPKR' allows adjustments to the settings that affect how the power amp simulation interacts with connected speakers. This is not something we need to discuss in this tutorial

Page 5, 'EQ' contains a graphic equalizer, with which you can heavily influence the sound of the amp, while the following page, 'DYN' deals with parameters affecting the dynamic response of the amp simulation.

The seventh page is called 'ADV and standsfor 'Advanced'. It contains parameters that can be used to fine-tune various tone factors for which you would need a soldering iron in the real world.
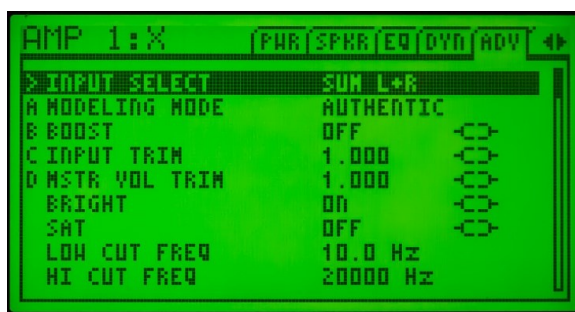
As there are so many parameters on this page, they are shown as a list, but one that is so long that it can't all fit on the display at once. See the scroll bar on the right? Just like in the layout display it shows your relative position in the display, only this time vertically. Navigate with the up and down arrows and use the value dial and the ABCD pots to adjust the parameters

The final page, 'TREM/MIX' allows you to set up the incomparable BIAS Tremolo, which gives especially the old 'Fendery' amps a cool vintage vibe. Nearly all the blocks in the Axe-Fx II have MIX as the final page. This is where you can set the overall volume of the block and how it should react when bypassed.

If you like you can save your sound. Press **STORE**. You now have the option to choose a different location to save to and you can also give the patch a new name. In the simplest case you will want to overwrite the current patch and to do this you must press **ENTER** twice. If you prefer not to save simply press **EXIT** or **RECALL**.

ANYTHING ELSE?
We've now reached the end of our first short trip through the world of the Axe-Fx II. We have only scratched the surface of course; some areas we have just touched upon and others ignored completely. But you are now familiar with the basic concept and will probably manage quite successfully from now on. You are now ready for the real manual. Read it through carefully, take your time and experiment. We wish you lots of fun with your Axe-Fx II.