

# The EX5 Arpeggiator

## Part 1 : Using existing presets

The EX5 comes standard with 50 preset Arpeggio's. The first thing many users will usually do is try different presets to explore different sonic possibilities on a VOICE.

But sooner or later, many will try to construct their own arpeggio's with varying results.

Through these tutorials, I hope to be able to both "explain" the EX5 arpeggiator operation and help many users get those results they have been after.

This leads us into the first part of this tutorial. First thing we will do is create a suitable VOICE for us to explore the arpeggiator.

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Turn the EX5 on and dial up a blank VOICE.  
Press [EDIT].

Press [OSC].

The standard setting on the EX is "0001 Pf:Grnd 1" for the 1<sup>st</sup> Element. Change this to "0027 Pf:Rho3-".

Next, set the 2<sup>nd</sup> Element to "0096 Cp:Marimb".

I have chosen these 2 Elements so you will be able to audibly hear what is going on. Feel free to try other combinations of your own.

Press [MIX]

Change the "Pan" setting for Element 1 to "L62".

Change the "Pan" setting for Element 2 to "R62".

To distinguish between the 2 Elements, we will next select the velocities at which they will trigger.

Press [ZONE]

Set Element 1 velocities between 1 and 65.

Set Element 2 velocities between 66 and 127.

This is all the programming we will be doing for this particular VOICE.

Press [EXIT]

Press [COM]

Press [NAME]

Call this VOICE something like "EX5 arp demo"

Now press [STORE]

Press [ENTER]

Now reply with pressing [INC/YES] button.

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For this example, I am going to show you how to manipulate the existing arpeggios into a nearly endless combination of possibilities.

Dial up the VOICE you just created.

Press [EDIT]

Press [COM]

Now to reach the arpeggiator, we press [ARP].

By "default", the arpeggiator is turned "off".

Use the No.2 knob to turn it "on".

If you play the keyboard, it is using the " Type = 001:PRE[UpOct1 ] " arpeggiator. This is the arpeggio we are going to manipulate into something a little more useful.

You will also notice that our 2<sup>nd</sup> Element is playing in our right side speaker.

Firstly, this tells us that this arpeggiator has a velocity setting somewhere between 66 and 127. If it were below this, than our sound would be emanating from the left speaker.

We cannot manipulate this arpeggio as its "burnt" solid into the EX5 ROM. Therefore, we've got to get it into one of the 50 user arpeggio area.

Using the 3<sup>rd</sup> knob, dial up the arpeggio to read " Type = 051:USR[Init Arp] ".

At the bottom of the LCD, you will notice it now says below the F3 button " [ ARP-EDIT] ".

Press the F3 button once.

We are now in the area in which we can manipulate arpeggios.

Take special notice of where it says "1 2 3 4". The way they are displayed tells us there is no data in any of the arpeggio tracks. Go ahead, play the keyboard.

The first thing we must do is get the original arpeggio we were playing into our "user arpeggio".

To do this, we must use one of the [JOB] functions.

Press [JOB]

You can see our first selection is " 1. Copy Arpeggio ". If the cursor is not on this, use the arrow keys to highlight it.

Press [ENTER]

The EX5 now wants to know which arpeggio to use, and where to put it.

The "Src Arp" is the arpeggio we will be copying.

The "Dst Arp" is where we will be copying it to.

We are lucky that it is reading exactly what we need to do. If it did not, we would use the 2<sup>nd</sup> and 3<sup>rd</sup> knobs to get the destinations correct.

Press [ENTER]

Press [INC/YES] button to answer "yes".

Now look at the "Dst Arp". It reads the same as the "Src Arp". We now know that the data has been copied correctly.  
Press [EXIT]  
Press [EXIT] again.

Now if you look at where it says "1 2 3 4". You will see that the "1" is highlighted. This is indicating that data is present in track 1 of the arpeggio.  
If you play the arpeggio, you will hear it is the original arpeggio we were playing.

Take your time now to press the [MODE] button. Play around with the different configurations you can use in the "Tr1". The original setting was " 02:note up 1oct ". This is what we will use for the tutorial.

Now to the point of this tutorial.

This arpeggio can be heavily manipulated with a couple of button presses. Dying to see more?  
Lets move on.....

Press [ARP].  
Using the arrow keys, move the cursor up to the box under the "1". This is the "FxThru" box.  
Take note that the "FxThru" has nothing to do with the actual effects on the EX5. That's right! It is not related to reverbs, chorus, delays etc.  
This parameter is affecting the way data is affected by the "groove" templates.  
At the moment, it is telling the EX5 not to use anything to affect the data on the track.  
We want to change this, so press the [DEC/NO] button. You will see that the box now becomes hollow.

**NOTE:** What we are about to do is "non destructive" to any of the data on the track. That is why it is so cool to use.

Now press [PFX].  
This is where all the "groove" templates hide on the EX5. Now, if you look at the right side of the LCD, it says " Typ= 000: off ". So nothing is being used at all.

Move the cursor up and change this setting while playing the keyboard. You will hear the "groove" templates affecting the arpeggio.

Moving this setting all the way to " Typ= 013: 24 Drunk ", you will hear our 2<sup>nd</sup> Element come into play as this template not only affects the data timing, but also the data velocity.

As this point of time, many of you could walk away with plenty of "arpeggio" making ahead of you. Nevertheless, I have not quite finished yet!

I want you to set this at " Typ= 005: 12 Quantize ".  
Press [EXIT].  
Press [ARP-EDIT] again.

I want to have the 1st Element to have a funky mind of its own!  
So I'm going to copy the data from track 1 and put it into track 2.

Press [JOB].  
We want to use the " 3.Copy Track " function, so move the cursor to highlight this function and press [ENTER].

Now you will see that the "Src Arp" is incorrect. Use the 1<sup>st</sup> knob to indicate " 051:U[UpOct 1 ]. This is the arp we've been working on. The "Track " indicates 1, so this is correct. You will notice that the "Dst Arp" and the "Track" are also correct, so we press [ENTER].  
Press [INC/YES].  
Press [EXIT]  
Press [EXIT] again.

Notice that the "2" in the "1 2 3 4" is now indicating data in the 2<sup>nd</sup> track.

Also below it in the "FxThru" box, note that the box is hollow. We have an exact duplication of track 1.

Playing the keyboard now, you can hear that its still only Element 2 playing its marimba sound.

The data on track 2 is not affecting the 1<sup>st</sup> Element.  
Why?

For the same reason that track 1 isn't affecting it. The **velocity** setting is too high.  
We need to reduce the velocity settings of track 2 to something that will trigger Element 1.

We know that it will trigger between a velocity of 1 to 65.

Looking back at the LCD on our EX5, move the cursor up to under the "2". (This will be on the "FxThru" box.)

Press EDIT.

The far right value indicates what the velocity setting is on all the events in the track. It is currently at a value of "72". The top left-hand side of the display tells us we are in "Tr2".

Now we are going to do some "destructive" editing to the data in Track 2.  
Press [JOB].

Press the F4 button now. (Which is [JOB3]. )

The 4<sup>th</sup> function on this page is what we are after.  
" 4.Modify Velocity "  
Highlight this function and press [ENTER].

We need to reduce the velocity down from 72 to a value between 1 and 65.  
Notice that the "Track " is not set correctly. Use the 1<sup>st</sup> Knob to change it to "2".

The "Offset" parameter will help us reduce the velocity now.  
We will bring it down to a value of 60 for all the events in track 2.  
So the maths is :  $60 - 72 = -12$ .  
So our "Offset" value will be -12.  
Change it to read -12 and press [ENTER].  
Press [INC/YES]  
Press [EXIT]  
Press [EXIT] again.

Play the keyboard. Element 1 will now be kicking in and playing. But we haven't finished yet.  
Press [MODE].

Change track 2 to something else like " Tr2 08:alternate1 1oct ".  
Now press [PFX]

Look at the top left side of the display to check if you are in "Tr2".  
Change the "groove" to "Typ= 008:06Quantize ".

Playing the keyboard, you will get the idea behind what YAMAHA mean't by some "wild"  
arpeggios could be played in the EX5.

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This concludes Part 1.  
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