

# MOTIF XS

## Tweak of the Week: Painting Drum Arpeggios to the Sequencer

The [SF] buttons in PATTERN or SONG can store what arpeggio is active at the current time. You simply need to register them one at a time. For example, let's say you want to use the arpeggiator to create a drum track in **PATTERN mode**. Here's an example:

- Call up a PATTERN, go to [MIXING] and select a Drum Kit for a PART

For this experiment use the "Power Standard Kit 1"

If you turn "PARAMETER WITH VOICE" to ON **before** you select your VOICE, then when you select the VOICE it will automatically copy the Voice's critical parameters into your MIXING setup including its associated VOICE mode arpeggios (if any). Here's how that is done:

- Turn ON the main [ARPEGGIO ON/OFF] switch
- Press [MIXING]
- Press [EDIT]
- Press Track [1]-[16] to select PART parameters
- Press [F1] VOICE
- Press [SF1] VOICE
- Turn "Param. with Voice" = ON (shown at right)

- Cursor up and select **Bank = PDR**
- **Number = 001**

Power Standard Kit 1 for your PART

- Press [F2] ARP MAIN

Here you can setup the Part Arpeggio parameters

- Switch = **ON**
- Hold = **ON**
- Change Timing = **Measure**



The SWITCH parameter will allow the PART to respond to the arpeggio. The HOLD will mean you do not have to manually continue to hold the keys down and the Arpeggio type selection will only occur at the top of a measure – so you can hit the button to recall each arpeggio anywhere in the measure prior to you wanting it to start. Not all VOICES will have arpeggios assigned – and certainly not all Voices will have the ARP Switch **active** in VOICE mode, so even though you use PARAMETER WITH VOICE to copy parameters from Voice mode, please recognize that you still may need to Switch the ARP ON, set the HOLD function and set the Change Timing parameter.

- Press [SF1] **ARP1**

When you touch a key you can now hear Drum Arp #3844 (Main B \_ 70's Rock)

- Press [SF2] **ARP2**

You can now hear Drum Arp #3845... notice it changes at the top of the next measure due to our CHANGE TIMING parameter setting! (Main C \_ 70's Rock)

- Press [SF3] **ARP3**

You can now hear Drum Arp # 3847 (Intro A \_ 70's Rock)

- Press [SF4] **ARP4**

You can now hear Drum Arp # 3848 (Fill-in A \_ 70's Rock)

- Press [SF5] **ARP5**

You can now hear Drum Arp # 3843 (Main A \_ 70's Rock)

These five arpeggio Types happen to be related. Please recognize you can select **any** arpeggio Types that you like and simply place them on the five Sub-Function buttons [SF1]-[SF5]. It may in fact be preferable to select your own arpeggios – we only point out the “PARAMETER WITH VOICE” feature so you are aware that if you discovered a VOICE in [VOICE] mode and want to use its arpeggios, you can quickly have the XS copy those parameters to your PATTERN or SONG MIXING setup.

[SF5] - is like the main “A” groove. Simple and straight...

[SF4] – is like a fill-in that could lead you to the next main groove. It’s a one-measure fill-in

[SF1] – is like the main “B” groove. A little more complex rhythmically

[SF3] – is another fill type one-measure thing (even though it is labeled an INTRO- it can be used as a fill

[SF2] – is the drummer opening up for the chorus

Now you can listen to these and imagine that you could build a 32-measure drum track as follows:

[SF5] = Measures 001-007	(First Verse)
[SF4] = Measure 008	(fill-in)
[SF5] = Measure 009-015	(Second Verse)
[SF4] = Measure 016	(fill-in)
[SF1] = Measure 017-023	(Chorus 1)
[SF3] = Measure 024	(fill-in)
[SF2] = Measure 025-31	(Solo)
[SF3] = Measure 032	(fill-in)

In PATTERN mode I do not have to record all of this to one SECTION I might decide to break this into smaller workable SECTIONS. Pattern Mode allows you to concentrate on each musical section. So in this example I will breakdown the 32-measures as follows:

Our first four moves could be:

[SF5] for 7 measures

[SF4] for 1 measure

[SF5] for 7 measures

[SF4] for 1 measure

I might do this to create Verse 1 and Verse 2 – as you can see they are a repeat. I might combine [SF5]-[SF4] into one eight measure SECTION. **SECTION “A”**

Our next move:

[SF1] for 7 measures

[SF3] for 1 measure

and then:

[SF2] for 7 measures

[SF3] for 1 measure

I could make the former an eight measure SECTION. **SECTION “B”**

And the latter an eight measure SECTION. **SECTION “C”**

By doing so I could then simply deal with an AABC structure when I chained the Sections.

When recording directly to a PATTERN, you must set the number of measures you will record **prior** to recording. This is simply so that the Motif XS knows when the Pattern should cycle.

- Press [PATTERN]
- Select a blank Pattern

Now when you are ready to record your drum track... Briefly turn the main ARPEGGIO ON/OFF switch OFF and back ON to reset the arpeggio to the top and start from silence. Make sure your MEASURE counter is reading Measure: **001:1:000**

- Press [RECORD]
    - Set the LENGTH parameter in the upper right corner to **008** measures
    - Highlight the **KEY ON START SWITCH** icon (looks like a little keyboard) and press [YES] to activate it (a small arrow will appear >). This will allow the sequencer to start automatically when you touch a key.
    - Set the **RECORD TYPE** to **OVERDUB**
    - Set the **LOOP** parameter to **OFF** – this is important in PATTERN mode when working with arpeggios because you want the sequencer to stop recording when it completes the eight measures, automatically.
  - Press [F2] ARPEGGIO
- You are ready to “paint” the first two arpeggio types to **SECTION “A”**. Press [SF5] to select it.
- Press any key on the keyboard to begin recording and the arpeggio

And when the measure counter reaches measure 007, press [SF4] – the sequencer will switch to that Arp at the top of measure 008. And because we turned LOOP OFF, the sequencer will automatically punch out and stop when it completes recording the phrases.

Rinse and repeat for **SECTION “B”**

Set the LENGTH to 008 measures; Select [SF1] ARP1 *prior* to beginning recording and while recording during measure 007, press [SF3] ARP3

And finally for **SECTION “C”**

Set the LENGTH to 008 measures; Set the [SF2] ARP2 initially and during measure 007 you will press [SF3] ARP3 for the final fill-in

Now to accomplish the linear 32-measure form you can create a PATTERN CHAIN that is A-A-B-C  
SECTION “A” measure **001**; SECTION “A” measure **009**; SECTION “B” measure **017**; SECTION “C” measure **025**

A **PATTERN CHAIN** (found from the main pattern mode screen at [F6] CHAIN, is simply the sequencer record function documenting the play order of your musical Sections. Here you can experiment with which Section is to play first, second, third and so forth. Chains can be created in real-time by pressing the [RECORD] button while on the [F6] CHAIN screen. Or can be created offline by pressing [EDIT] while on the [F6] CHAIN mode.

One of the advantages of recording your music initially in PATTERN mode is this: You now can play around with the structure of the composition. I may decide that I want to add another Verse before going to the “C” section. AABAC. There is a classic story that the band Genesis when working on their huge hit, did not have a title for the song, but while they were working out the arrangement on paper at one point the structure was A-B-A-C-A B. This, of course was their huge hit ABACAB... only musicians knew what it meant. The name kind of stuck – even though the actual final version did not follow that section structure. Classical, pop, jazz, and even country musicians alike have used this lettering system. It addresses the fact that you might change your mind during the development of the music.

If you are working in SONG mode when you discover that you might want to change your mind about the musical flow of your sections... the Motif XS sequencer provides a SONG JOB called **SPLIT SONG TO PATTERN** which is designed for just this purpose. It allows you to define a region of measures and target a specific SECTION of a PATTERN. Please see the article on DRUM TRACK CONSTRUCTION for a discussion of how the SONG and PATTERN modes of the XS Sequencer are designed specifically to work together in music composition. Moving data back and forth can be done easily with Song and Pattern jobs designed to move individual phrases or entire movements of music containing multiple parts.

Now that I have my SECTIONS – I may want to have a slightly different fill-in for measure 008 than at 016. This is where you can bring in the **REMIX** function. By setting the INTERVAL to 8 (every 8 measures) I can try out literally thousands of variations for Fill-ins, Breaks, Rolls, etc. See the article/tutorial on **REAL TIME LOOP REMIX** for details on this extremely powerful tool to continue your customization of the arpeggio data. Remix is another advantage in working out your drum phrases or any arpeggio phrases while in PATTERN mode – because it offers you so many *musical* alternatives to the stock data. In our next section we will discuss the differences you encounter when “painting” arpeggios to a linear SONG.

## SONG MODE

With only a few differences, you can/could record the 32-measure example above directly to a linear song (SONG mode). This can be accomplished while other tracks have already been recorded or you can start your composition by laying out a drum framework. As you can see, there is total freedom in how/when you can implement this feature. Simply place your main drum grooves (arp Types) on the [SF] buttons and your fill-ins on other [SF] buttons and as the Song advances you can intuitively construct the drum track. With SONG mode Punch In/Out function you could simply prepare and insert fill-ins where appropriate.

Here again is our 32-bar DRUM track as follows:

[SF5] = Measures 001-007	(First Verse)
[SF4] = Measure 008	(fill-in)
[SF5] = Measure 009-015	(Second Verse)
[SF4] = Measure 016	(fill-in)
[SF1] = Measure 017-023	(Chorus 1)
[SF3] = Measure 024	(fill-in)
[SF2] = Measure 025-31	(Solo)
[SF3] = Measure 032	(fill-in)

Because SONG mode is linear, I simply make the transitions one after the other. Making sure I press the [SF] button in the measure just before I want the Arp Type to change.

- Press [RECORD]
- Press [F2] ARPEGGIO
- Press [>] Transport PLAY to start the count-in... you will need to press a key on the downbeat of 1 to begin the arpeggio.

By setting the sequencer to Record mode and then selecting the [F2] ARPEGGIO select screen, you will have real time access to the **ARP1-ARP5** assignments we have made during the record process. This may take some practice but is very intuitive because you can hear the drums as you make the changes. By setting the CHANGE TIMING parameter to "Measure" you need only select the next ARP you want to recall sometime during the measure **prior** to when you want it to play. For example, I want to start out with [SF5] and then somewhere during measure 007 we want to press [SF4] – so that it begins play at the top of measure **008**. Once it begins to play I want to press [SF5] to return to that arpeggio. You can temporarily slow the tempo down if you are under too much pressure... Remember: tempo can be adjusted back to speed later.

Now you can "paint" (transfer) the drum arpeggio data to the track... using just the [SF1]-[SF5] buttons... because you set HOLD to ON, you do not have to hold down a key, the drums will continue to play. But because SONG mode is linear in nature you will have to manually end recording. You can use the PUNCH IN and PUNCH functions to help you automate the recording. It is as important to STOP on time as it is to START ON time. (See our Troubleshooting section below for some tips on fixing unfortunately placed data)

## ABOUT THE ARPEGGIO TYPES

All the arpeggio types are categorized by main Category (instrument) and Sub-Category (genres of music). And can be non-destructively altered in real time via ARP FX. There are over 6600 arpeggios total. When looking at Drum Type arpeggios you will notice that many have a two-letter prefix in their name... these are general suggestions (only suggestions):

**MA** = Main A section  
**MB** = Main B section  
**MC** = Main C section  
**MD** = Main D section  
each is a little more complex (busy)  
**IA** = Introduction type  
**FA** = Fill-in A  
**FB** = Fill-in B  
**FC** = Fill-in C  
etc. Each is more complex as you move A, B, C...  
**BA** = Break A

And so on... You do not have to follow any of these suggestions - use any arpeggio pattern as you see fit. You do not even have to follow any rules about **instrument** and you can mix 'n' match Types from multiple genres... there are no rules. There is only *more or less* appropriate when it comes to musical taste.

PATTERN Play									
Play Effect									
Tr	Quantize		Swing		Note Shift	Clock Shift	Gate Time	Velocity	
	Value	Str	Vel	Gate				Rate	Offset
1	off	100%			+0	+0	100%	100%	+0
2	off	100%			+0	+0	100%	100%	+0
3	off	100%			+0	+0	100%	100%	+0
4	off	100%			+0	+0	100%	100%	+0
5	off	100%			+0	+0	100%	100%	+0
6	off	100%			+0	+0	100%	100%	+0
7	off	100%			+0	+0	100%	100%	+0
8	off	100%			+0	+0	100%	100%	+0
9	off	100%			+0	+0	100%	100%	+0
10	off	100%			+0	+0	100%	100%	+0
11	off	100%			+0	+0	100%	100%	+0
12	off	100%			+0	+0	100%	100%	+0
13	off	100%			+0	+0	100%	100%	+0
14	off	100%			+0	+0	100%	100%	+0
15	off	100%			+0	+0	100%	100%	+0
16	off	100%			+0	+0	100%	100%	+0

## TROUBLESHOOTING

If you miss the downbeat, that is, you are late trying to start the drum arpeggios, don't worry. You can adjust the entire track using the [F2] PLAY FX's **CLOCK SHIFT** function once you have completed the transfer. (Shown left)

Here's how that works: If you record your arps and then go to the EVENT LIST (press EDIT from the main SONG/PATTERN screen) and you see your initial drum is hit at measure: **001:1:039** ...this will mean you were 39 clock ticks late and the entire track is behind the beat. Do not beat yourself up about this. It is human to sit behind the beat. But you can easily correct this by going to the [F2] PLAY FX screen and shifting the entire track minus 39 ticks.

Highlight the **CLOCK SHIFT** value and use the DATA WHEEL to set it to **-39**, this will shift the entire track so that that first hit occurs at **001:1:000**

You can make this change permanent by using a sequencer mode JOB:

- Press [JOB]
- Press [F5] TRACK
- Select **"NORMALIZE PLAY EFFECTS"**
- Press [ENTER]
- Set it to apply to your track#
- Press [ENTER]

Normalizing the PLAY EFFECTS simply writes the OFFSET changes into the track data – then resets the [F2] PLAY FX screen. In this instance all the data on the track swill be shifted early by 39 clock ticks

**PUNCH Record:** We mentioned that in SONG mode you may opt to use RECORD TYPE = PUNCH. This would allow you to set a measure where the sequencer begins printing data and when it will stop printing data. You may think that you are quick enough to press STOP on time. But trust us, you are a human... (You'd have to have the timing of an android, like Data, to nail it on the 000 clock tick). If you were to do it, it would be by accident. Do note, however, that the PUNCH OUT will **not** stop the arpeggio from playing. It will simply stop the sequencer from recording – which in the end is what you want to accomplish.

Other methods exist to handle this as well. With the ARP MAIN and ARP OTHER setup screens you can further customize how the arpeggio behaves. For example, there is an arpeggio **Trigger Mode** setting "Toggle" where you can start and stop the arpeggio when you touch the keyboard. Alternatively, the arpeggio can be set to **Loop** = Off, which will make the phrase play once and stop. Explore and experiment!

**Summary:** In this fashion you can intuitively add drums to your composition - creating fills where appropriate. You can record them first or you can record them after you have recorded other tracks and you are listening back to them... And with a little imagination, you can use this technique for arpeggio Types other than drums. And the beautiful thing about this is that once you have 'painted' (output the arpeggio data) to a track, you are free to re-assign the [SF] buttons with additional arpeggio Types and work on other portions of your composition. Enjoy!

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