
DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by cosmosuave - 2010/11/01 20:36

There have been numerous posts about the settings on the Dynamix could we have a sticky on exactly how the settings work what values correspond to traditional compressor settings? I know we should be using our ears for comp settings but I just want to know for example if on the...

Attack MD 127 = 0 (traditional comp) fast attack
Mix MD 127 = 10 (trad comp) full comp signal no dry
Threshold MD 127 = 0 Db (trad comp)

etc... Just need to know the initial settings for a starting point... Last night I was driving myself crazy trying to figure it out and reveiwing past posts on the subject...

Please someone clarify this once and for all and post a sticky or add it to the MD tips and tricks...

http://tarekith.com/assets/machinedrum_tipsandtricks.htm#Performance

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by chapelier fou - 2010/11/01 20:44

I admit every time i put dynamics on the MD, i spend 5 minutes to recall how it works. Totally unnatural.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by previewlounge - 2010/11/01 21:07

i posted something inaccurate a while ago ... something about how the compressor was slightly 'on', by default. this is incorrect, the Dynamix is not effecting anything until the user adjusts the settings.

a video tutorial by someone who has the Dynamix knowledge would be awesome, although i guess the video could be somewhat difficult to make, seeing as how the lcd screen isn't all that easy to film.

perhaps screen photographs and writings about settings would be helpful?

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by cosmosuave - 2010/11/01 21:12

Logic dictates that turning the controls clockwise should cause a change but I don't think this is so and is counter intuitive... Having done some programming on midiboxSID I don't see why Elektron could not change the code on the OS so that the controls work clockwise for change and effect...

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by dubathonic - 2010/11/01 21:51

cosmosuave wrote:

Just need to know the initial settings for a starting point... Last night I was driving myself crazy trying to figure it out and reveiwing past posts on the subject...Please someone clarify this once and for all and post a sticky or add it to the MD tips and tricks...

Amen to that...

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Boelie - 2010/11/01 21:58

Don't use the dynamics at all here, rather bounce all the audio tracks and mix in cubase

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by data-line - 2010/11/01 22:02

Boelie wrote:

Don't use the dynamics at all here, rather bounce all the audio tracks and mix in cubase

Ye but some people use the MD live.....

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by cosmosuave - 2010/11/01 22:04

Exactly...

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Tarekith - 2010/11/01 22:19

previewlounge wrote:

i posted something inaccurate a while ago ... something about how the compressor was slightly 'on', by default. this is incorrect, the Dynamix is not effecting anything until the user adjusts the settings.

Not true on a MKII unit here. If I reset the MD back to it's factory state, the Compressor is on 100% wet by default, and there's a noticeable difference in sound if I turn the mix to 100% dry.

A video tutorial is an interesting idea, let me see what I can come up with. It's hard, because dynamix is SORT OF a compressor, yet it acts like no other compressor I've ever used :)

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by AN1 - 2010/11/01 22:25

I can confirm that Dynamix is most definitely on for an empty kit on my MkII UW. The first thing I do with every fresh kit is turn it off.

And I'd again be super happy if somebody could write a definitive explanation of this thing, make a video tutorial or convince Elektron to update the manual ;-)

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by cosmosuave - 2010/11/01 22:37

Tarekith wrote:

Not true on a MKII unit here. If I reset the MD back to it's factory state, the Compressor is on 100% wet by default, and

there's a noticeable difference in sound if I turn the mix to 100% dry.

)

Compressor 100% wet factory state is this equal to 127 or full clockwise?

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by ipassenger - 2010/11/01 22:37

The compressor is on by default but it isn't doing much proper compression as the sidechain HP filter is set as high as it can be, the attack and release are as long as possible, the knee is set to full, which means it has a very gradual knee and the threshold is set very high.

The first thing I do on a new kit is set-up the compressor to do some actual compression (lower the HP and sharpen the knee, lower the threshold, that kind of thing), mix a bit of dry back in and then mix my pattern into it, until later on where i'll probably come back and re-assess it. Different folks work in different ways though. Hopefully the MD DJ project thingy should be good for really looking into that.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Tarekith - 2010/11/01 22:48

cosmosuave wrote:

Tarekith wrote:

Not true on a MKII unit here. If I reset the MD back to it's factory state, the Compressor is on 100% wet by default, and there's a noticeable difference in sound if I turn the mix to 100% dry.

)

Compressor 100% wet factory state is this equal to 127 or full clockwise?

Full wet is 0, full dry is 127, it's the opposite of what you would think.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by cosmosuave - 2010/11/01 22:53

Tarekith wrote:

cosmosuave wrote:

Tarekith wrote:

Not true on a MKII unit here. If I reset the MD back to it's factory state, the Compressor is on 100% wet by default, and there's a noticeable difference in sound if I turn the mix to 100% dry.

)

Compressor 100% wet factory state is this equal to 127 or full clockwise?

Full wet is 0, full dry is 127, it's the opposite of what you would think.

What about the rest of the controls do they follow the same format?

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Veets - 2010/11/01 23:43

If you are trying to get standard compressor pumping effects, you might find you get there more directly with LFOs or the CTR machines. For example, have a CTR-ALL machine and p-lock (or slide) the volume of everything up and down. For more surgical pumping of only one or two things, use LFOs or slides/p-locks.

This takes a few minutes to get set up and tweak, but then you know you got it. Using the compressor, you just have to take it for what it is. Sometimes it gives you what you want, sometimes it doesn't.

Have a search for pseudo sidechain - there was a lot of talk about this a while back. I have been reading this board for quite a while and no one has yet to my knowledge gotten the 2010 standard dramatic pumping out of the MD.

For livesets, the above approach gets more difficult because many tracks have to be considered. I know Highsage and others will bring a small dedicated hardware unit. FMR makes some small ones that have a pretty good rep.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by cosmosuave - 2010/11/01 23:54

A side from all the side chaining and lfo routing I just want to know how the controls work i.e clockwise rotation or counter clockwise... I realize that the Dynamix will not give you that pumping effect or maybe it will once come to grips on how the controls work...

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by dj_d_oz - 2010/11/01 23:56

I think it is only the Mix control which is the other way round.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Veets - 2010/11/02 11:04

dj_d_oz wrote:

I think it is only the Mix control which is the other way round.

K- how about this? http://elektron-users.com/images/fbfiles/images/MD_Comp.JPG

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Veets - 2010/11/02 11:09

Oops - quoted wrong person and now it won't let me edit. Anyway, this is for Cosmosuave. Wiki updated.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by AN1 - 2010/11/02 12:16

Thanks for the diagram! One last clarification, more highpass means more low frequencies filtered out from triggering the compressor?

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by HighSage - 2010/11/02 15:23

Veets wrote:

djd_oz wrote:

I think it is only the Mix control which is the other way round.

K- how about this? http://elektron-users.com/images/fbfiles/images/MD_Comp.JPG

To me, the ATK looks backwards in the diagram, as does the REL.

The knee also looks backwards....

Anyone else confirm what I'm seeing. Hell if these knobs really work the way this depicts them, then no WONDER i've been struggling to find settings that would make sense in the real world on a normal outboard comp!

To me, ATK and REL knobs should work like any normal envelope generator knobs would.
And the KNE should should get softer/looser, as you open up the knob to the right...

This diagram, if correct, would explain why I've only ever had good results closing my eyes using the compressor...but even then, the normal workflow I use on a real compressor is whacky now here on the Dynamix!

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by ipassenger - 2010/11/02 16:07

I agree with highsage, the attack, release and knee are the wrong way around in the diagram. i think. :)

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Justin Valer - 2010/11/02 16:56

Attack and release are indeed as depicted in the diagram.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by chapelier fou - 2010/11/02 17:42

So for me, attack, release and dry/wet should be the other way.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Justin Valer - 2010/11/02 17:57

For Mix.. 127 = dry signal (the diagram is correct.)

You can test the attack and release controls to see what they do.

You'll find that when attack is at 127 and release at 0 you'll lose all your kick drum transients. Decrease attack and you'll hear the transients come back in because you have a slow attack. If you set release to 127 and attack to any value the compressor will effectively be off because you have a very fast release.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Justin Valer - 2010/11/02 18:07

Also.. The values that the MD assigns to the compressor when loading an empty kit do not engage the compressor even though the signal is wet. This is because threshold volume is set to maximum.

I believe it is done this way so that you can use the Output Gain in dynamix to boost the final volume (without the signal being compressed).

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by cosmosuave - 2010/11/02 20:55

Veets wrote:

djd_oz wrote:

I think it is only the Mix control which is the other way round.

K- how about this? http://elektron-users.com/images/fbfiles/images/MD_Comp.JPG

VEETS THANK YOU FOR THIS!!!

And it just proves to show that the logic behind this is fucked as Highsage thought the controls worked like every other piece of gear i.e turn the knob clockwise for change...

Elektron please rewrite the code on the next OS update so the knobs function like 99% of all the other gear on the planet...

So now it is set in stone... Taping that diagram to the bottom of my MD for reference...

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by ipassenger - 2010/11/02 21:03

Justin Valer wrote:

Attack and release are indeed as depicted in the diagram.

So a setting at the far left (fully counterclockwise) of the attack dial gives it a really slow attack time and at the right (fully clockwise) it is almost instantaneous?

This is definitely at odds with how I understood it.

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Justin Valer - 2010/11/02 21:07

So a setting at the far left (fully counterclockwise) of the attack dial gives it a really slow attack time and at the right (fully clockwise) it is almost instantaneous

Yes.

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by ipassenger - 2010/11/02 21:12

Justin Valer wrote:

So a setting at the far left (fully counterclockwise) of the attack dial gives it a really slow attack time and at the right (fully clockwise) it is almost instantaneous

Yes.

Did it swap round then when the fixed the issues with the compressor noise then or was it this way round before?

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by merlin - 2010/11/02 21:23

^

a.f.a.i.k. this has always been the case and has not changed when the o.s. update fixed the compressor noise.

M.

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Justin Valer - 2010/11/02 21:24

Did it swap round then when the fixed the issues with the compressor noise then or was it this way round before?

Not sure, I'm guessing it was always this way.

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by ipassenger - 2010/11/02 21:28

I am completely dumb founded by this, I was sure I had the compressor pretty much understood, guess I need to go back and study it some more.

Weird that some of the dials work opposite to convention (attack, release, mix) and others follow it (threshold, ratio, knee).

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by cosmosuave - 2010/11/03 00:10

So how many of you are going to check your Dynamix settings next time you turn on the MD?

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Hertzian Cone - 2010/11/03 00:48

Yet again, another ever unfolding Elektron saga catches a broad spectrum of the EU community by the knackers/chests

:)just keeps on giving

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Veets - 2010/11/03 02:13

Made the diagram by ear but you can check it easily. Load up a snare/clap and reverb it heavily. Then twist and shout. You will hear the comp on either the transient or the reverb tail, or both.

After making the diagram, I went back to the manual just as a check. Approx 50% of the manual descriptions had an explanation of the end points - the rest did not. As I recall, the manual checked out with what I had. Have fun.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by ipassenger - 2010/11/03 03:30

Ok I am convinced. :)

The attack and release work back to front but I still think your knee is the wrong way round on your diagram.. Setting to the left produces a harder more obviously compressed sound, to the right a subtler but quieter effect occurs. IMO anyway. :)

The reason I had the A + R working that way round in my head is that values of less than 73 used to make it distort and everyone said it was due to the times being too short!! Until Elektron fixed it that is. :laugh:

Oh well... :)

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by AN1 - 2010/11/03 05:25

Justin Valer wrote:

Also.. The values that the MD assigns to the compressor when loading an empty kit do not engage the compressor even though the signal is wet. This is because threshold volume is set to maximum.

I believe it is done this way so that you can use the Output Gain in dynamix to boost the final volume (without the signal being compressed).

That's not my experience, the default settings certainly have an audible effect on the signal. I remember when you just place a few kicks you can slowly hear the compressor kicking in and reducing the volume.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by hageir - 2010/11/05 07:14

and the award for the most confusing thread of the year goes to *drum roll*...

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by TrondC - 2010/11/05 14:41

yeah I don't know how a normal compressor works either, so I just copied the "pseudo sidechain" thing, tweaked to my taste and just use my ears to fine-tune. wouldn't want to change it really.

oh, and I'm still on an OS from late winter/early spring, maybe time to check out the new OS soon..

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by nocturne - 2010/11/06 13:38

Sorry, I still think the attack and release controls are 0->127 = fast->slow.

Try this to hear the effect of the attack and release controls:

Get some content with sharp transients playing (rim shot, snare, etc.)

Set the ratio to 127 and the threshold to 0 to make the effect as pronounced as possible

Turn the Mix to 0 which is 100% wet

Set both the attack and release to 127 and listen for a bit

Set both the attack and release to 0 and compare

Which attack and release settings sounded more "extreme"?

With both attack and release set to 127, the effect is much less pronounced which means they are slower. With both controls set to 0, things get more squashed and possibly distorted, (albeit less distorted than it used to be!) which means they are faster.

The bottom line is that compressors will sound less compressed when the attack and release are set slower and more aggressive when those controls are set faster.

That's my story and I'm sticking to it! :)

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by tIB - 2010/11/06 16:52

I know less now than I ever have! Has anyone tried just asking hq?

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by previewlounge - 2010/11/06 17:45

hageir wrote:

and the award for the most confusing thread of the year goes to *drum roll*...

+1

interesting to note that compressors were invented in the days of Vinyl, early Vinyl, and the aim was to reduce the dynamics (bringing the higher volume swells more in line with the volume of the rest of the song), and thus ensure the information could fit nicely onto a 45 record.

also, if large extremes of volume were present in the encoding/writing-to-vinyl stage, that could result in a track that may throw record player needles off balance, especially if there were a discrepancy in the stereo left/right balance of the volume peak.

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by dubathonic - 2010/11/18 12:36

So did anyone ever contact Elektron about this? You guys who dug & explored deserve some straight answers, even if I don't :laugh:

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Tarekith - 2010/11/18 12:48

Just sent an email, I'll post the answer here.

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Veets - 2010/11/18 14:03

Sent one about a week ago. Guess they are ignoring me :lol: The good news is that by ignoring me the Octa will come out faster.

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Veets - 2010/11/18 15:01

dubathonic wrote:

You guys who dug & explored deserve some straight answers, even if I don't :laugh:

Uh, so I just decided to look at this with a DAW and get some waveform pictures. This is getting a little weirder than I thought.

Dial in a GND Nois with a long decay. Use the Square LFO to clamp off the decay after a second or two. So you will get a rectangle waveform in your DAW.

Now play with the comp settings and look at the pictures. That gives the answers.

Here's another thing I noticed - once you get up around 30-40 on ratio, you are pretty close to maxed out compression. At least by this test.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Veets - 2010/11/19 10:58

B) Alright, no one got around to playing with waveforms yet?

I'll give you a hint. Attack is Release. Release is Attack. War is peace. Freedom is slavery. Ignorance is strength.

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Tarekith - 2010/11/19 11:01

The Elektron guys said they know people want some clarification and are aware of this thread, they're just a bit busy at the moment so give them some time to clear things up.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by actuel - 2010/11/19 12:13

good news Tarekith. always good to go to the source.

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Nils - 2010/11/19 13:38

Justin Valer wrote:

Also.. The values that the MD assigns to the compressor when loading an empty kit do not engage the compressor even though the signal is wet. This is because threshold volume is set to maximum.

Nope, the compressor is definitely active when the signal is loud enough.

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Tarekith - 2010/11/19 13:55

Agreed, it's plainly audible.

Re:DYNAMIX SETTINGS (Elektron's Reply)

Posted by Tarekith - 2010/12/08 01:46

Ok, here's the response from Elektron:

"ATCK controls the attack time, which is the time it takes the volume detector to react to the Attack part of the sound signal. Long attack times let fast transients through the compressor.

REL controls the release time. This is the time it takes the volume detector to react to the Release part of the sound signal. A long release time lifts the signal level as a sound decays, flattening the dynamics.

TRHD sets the threshold level where the signal starts getting compressed (from -48 to 0dB).

RTIO controls the ratio by which the signal is compressed, when the threshold level is reached. The ratio has a value in the range 1:1 to 1:256.

KNEE controls the soft knee transition. It makes the transition between compressed and uncompressed signal smoother, by softening the knee. A low value gives a hard knee.

HP is the side chain High pass filter. This parameter highpass filters the sidechain signal of the Compressor, so that it does not react to bass.

OUTG out gain raises the signal level. This is used to make up for the gain lost in the compressor.

MIX controls the cross mix between the compressed signal and the original signal. A high value bypasses the DYNAMIX processor.

I can agree that some text is a little hard to comprehend as we do not give any values. but its our intention to not confuse users with timing values and such as we want our users to ,, you know, ,, use their ears. what other manufacturers do, well ,, umm. yeah, thats their thing really. hope I dont sound too mean here as that is not my intention at all. if it contains bugs though, thats a whole other thing!"

And then I asked:

I think the confusion isn't so much what the controls do, but how they are set up in the Elektron gear. IE, is attack and release fastest at 0 or 127? Is the threshold highest at 127 (0dB) and lowest at 0 (-48dB)? Ratio at 1 = 1:1 and 127 = 1:256?

Also, can you confirm that by default the Dynamix is set to 100% Wet and thus always on in brand new units?

Also one more question while I have your attention :) I've heard that

the MD and MnM's Master Volume knob is actually applying gain when turned up fully. Where approximately should it be set so that no gain is applied or removed?

Reply:

"yes, attack and release is fastest at 0. slowest at 127.

the threshold is highest at 127 and that is indeed 0dB.

ratio, correct.

a mix value of 127 means that its a dry signal. a mix value of 0 means only compressed signal. still, you can if you push the makeupgain, have signal bleedthrough but then you are really pushing it.

thats what the manual states below although I can agree it is a little confusing, our intention is though to make it easy for the user and dial in what sounds good. not calculate it beforehand.

yes, it does apply a small gain. I would put the master volume at 3 oclock. then it will more or less match the separate outputs (which has no pot controlling the output)"

Hope that helps everyone!

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by AN1 - 2010/12/08 03:27

Thanks for posting this! ;-)

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Toni - 2010/12/08 03:35

MD would really benefit having a master-meter (-60dB - 0dB for example).

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Tarekith - 2010/12/08 03:36

Agreed, though I imagein that computationally it would be pretty CPU intensive.

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by RubixGroove - 2010/12/08 05:03

This is all really, really handy information. I haven't quite got into the internal compressor as much as I should have... but that bit about the main volume gain is 100% invaluable!

:D

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by johnathon doe - 2010/12/08 07:18

+1 on the MASTER VOLUME setting.

I usually crank it all the way up...then set levels accordingly...maybe that's why i have distortion issues with SIN machines sometimes!!!

This needs to be put in the FAQ/WIKI.

For posterity!

:backslap:

peace

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by actuel - 2010/12/08 07:19

I want a tutorial video. Who's doing it :D

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Toni - 2010/12/08 07:25

johnathon doe wrote:

+1 on the MASTER VOLUME setting.

I usually crank it all the way up...then set levels accordingly...maybe that's why i have distortion issues with SIN machines sometimes!!!

If you are using Master Volume at maximum gain, amplifiers within MD (or MnM for that matter) will be overdriven by bit. With MnM, anything above three o'clock might be overdriven (depending your internal gain of course). Its not so easy to hear with MD, but I believe its the same.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Chakaharta - 2010/12/10 03:59

UPDATE: most of what I've written in this post is confused. Check out my later post down in the thread... I think I've figured this out better now.... :S

I think Veet's diagram is correct, except possibly the knee knob direction.

What's really weird is the attack and decay settings (127 is fast) are the opposite of what was quoted by the Elektron email that Tarekith just posted.

But after listening to what the comp is doing, and (to check my head) running test signals through the compressor and back into my DAW, I agree that 127 seems like 'fast' action.

EG: To get a hard pumping sound, play a pattern with a hard 4/4 kick and plenty of long-decay stuff playing during the non-downbeats. Set THRSH low-ish and RATIO above 30 (which I agree sounds like about the max ratio strangely). If you set attack to 127 and tune the release somewhere between 0 and 64, you get a really strong "pump" as the compressor releases slowly. If you want more snap from the kick, dial attack back from 127 to a slower attack mode.

What can get confusing about this, especially when trying to get analytical using pure sinewaves to test, looking at the waveform etc, is that a) this compressor seems to be very much a peak signal detector, so any transient spikes will cause it to clamp down. b) the GND-sin machines don't phase-init every time you trig, and you often get very loud spikes

during the first cycle of a note. That's enough to signal the compressor to clamp down very hard -- but depending on your threshold that might only last through that initial transient spike. So a very high ATK setting can allow the compressor to *completely* gain reduce during that initial transient, and then release during the rest of the signal. If you have ATCK high and RELEASE low, then your note will have an attenuated start and then swell up as the compressor releases -- which can make the ATTACK knob seem like a release since you have to have a really high attack to get the gain reduction during the initial spike to make the slow release sound audible. Hope that makes sense to someone.

I'll post some images when I get some more time.

But doing listening tests on program material, it really does sound like high attack = fast and high release = fast.

Ironically, I took a closer look at the Dynamix on the MNM, and guess what -- it's completely different. Attack of 0 is a fast attack, release of 0 is a fast release, the ratio knob actually does something meaningful above 30, and there's a peak-rms dial for the detector function. That said, I couldn't get the release to do anything useful on the MNM compressor yet!

-j

PS: just mailed Elektron about this, and I'll post if I hear anything back.

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by GYS - 2010/12/10 04:39

Thanks for yet more insight into this awesome/broken effect, Chakaharta. :blink:

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by GYS - 2010/12/10 04:56

I must also say...I love how the "once and for all" Dynamix settings thread is 7 pages long and going strong. :laugh:

=====

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by johnathon doe - 2010/12/10 06:33

GYS wrote:

I must also say...I love how the "once and for all" Dynamix settings thread is 7 pages long and going strong. :laugh:

i have to agree that it's kind of funny...but...

i'm really happy with people's perseverance to understand this effect.

it shows a passion for these machines and what they can do.

i have made my contributions to this discussion before, but now even those are up in the air!
:D

i watch this thread with intriguing interest.

peace

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by GYS - 2010/12/10 06:37

johnathon doe wrote:

i watch this thread with intriguing interest.

Ha, me too! Every time I read a lengthy explanation, I can't wait to get home and try the latest and greatest way to use the compressor! :laugh:

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Veets - 2010/12/10 10:44

actuel wrote:

I want a tutorial video. Who's doing it :D

I thought about itB)

I posted some compressor graphics a while back and the graphics tell a different story than what HQ said. I love Elektron HQ - they have done a lot of great things on keeping the OS evergrowing - but the results don't seem to match up. But don't take my word for it, anyone can do my test - I posted all the details. All you need is a DAW. Chakaharta raises a good point about the GND-SIN and that's why I used GND-NOISE.

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Chakaharta - 2010/12/13 16:20

Arrright, Veets was definitely right with the 1984 references ... things are backwards as far as I can tell too. It's even stranger than I'd imagined though, if it's doing what I think it is.

Let's just start with some reference images:

http://elektron-users.com/images/fbfiles/images/MD_dynamix_tiny.gif

From top to bottom, that's:

- * noise burst at low, high, and then low levels. i'm using that to test the compressor's time response. (it's just a GND-NS machine with a max decay, and p-locked VOL settings for the three steps, as well as a fourth "silent" trig at VOL 0 at the end to stop it)
- * dynamix in "limiter" mode: ATCK 20, REL 0, TRHD 90, RTIO 127, KNEE 0, HP 0, OUTG 0, MIX 0. looks pretty flat. that's promising. this is also getting the threshold to affect only the "loud" part of the signal in the middle of the timeline.
- * bring ATCK up up 127. this actually gives a slow release -- take a look at the ramp up after the middle "loud" section. the compressor is releasing its gain reduction slowly, so it takes a while to rise back up to normal level.
- * bring REL up to 70 -- this has the effect of giving a slower attack to the compressor, visible by the overshoot at the beginning of the middle section. it doesn't really affect the release stage (visible in the ramp again).
- * now things get weird: ATCK 0, REL 74 -- this has a medium attack and a medium release. WTF?
- * ATCK back up to 127 -- no real difference
- * REL 127 -- slower attack and release (the final segment has a reeealy long release ramp now)
- * ATCK back to 0 -- no difference from the previous really.

OK, so what's going on here? Here's my best description of what I've seen:

http://elektron-users.com/images/fbfiles/images/MD_dynamix_tiny.gif

http://elektron-users.com/images/fbfiles/files/MD_dynamix.gif

* 0

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Chakaharta - 2010/12/13 16:24

Hrm, the bottom of my post got cut off and I can't edit that post anymore

Here's the description. You're probably going to need to check out the attached image since I went over the inline image

size.

Attack and release are in fact reversed, and REL has a strange mode where it controls both the attack and release rates at the same time....

* REL between 0 and 72 controls attack time (higher = slower).

In this REL range, ATCK controls the release time (higher = slower).

Example: ATCK 127 REL 0 = fast attack limiter with slow release (which isn't possible on the MNM Dynamix, BTW).

* Hard jump in behavior as REL goes from 72 -> 74 or back

* REL between 73 and 127

As best I can tell, REL controls attack and release time.

73 is fast, 127 is slow (for both)

ATCK doesn't do anything when REL is in this range.

Other random notes:

* The HP in the Dynamix seems only run from like 20 Hz to 500 Hz or something like that. That's why having it all the way up at 127 still results in lots of compression from program material.

* MIX 127 -> Dry (opposite of MNM Dynamix)

* RAT knob has most effect from 0 - 30 (it's not as "perceptually" scaled as the MNM RAT knob)

* KNEE 0 = Hard, 127 = soft. A "soft" knee starts compression below the nominal threshold. Turning KNEE toward 0 should lower the amount of applied gain reduction.

* By default in an empty kit, slight compression is on because EQ gain is 127 (0 db), Dyn TRHD = 127 (0 db), RTIO = 127 (limiter), KNEE = 127 (soft knee = compression starts well below nominal threshold), HP = 127, ATCK = 127, REL=127, MIX = 0 (full wet compression)

Does any of this match what you all are seeing? I'm using OS 1.62 BTW....

Cheers.

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Veets - 2010/12/13 23:29

That is pretty much what I was seeing except you did a more detailed look at the middle points. I only looked at the extremes and (wrongly again I suppose) assumed that the intermediate values were simple transitions from the extremes.

It's funny you mentioned 72-74 as an area where the behavior changes since on the older OS, 75 was the magic number where the compressor would "shriek". The shriek was this weird high-pitched distortion noise. All the old timers will remember this noise. IIRC putting Attack and Release both above 75 got rid of the shriek. I did some tests trying to figure out how this noise got generated. I remember trying to feed the compressor some pretty low (30-40 hz sine) material and some higher end material (100 hz) and the noise was the same no matter what. Supposedly some fast compressors can make noise with bass material as the compression is faster than the wavelength. I don't have the results from the tests but my recollection is that I couldn't see anything obviously compressed in the shriek. Also, I remember it was always the same frequency (eeek, eeek) no matter the Attack or Release settings, and then faded out once you got to 75 or so. I never quite could figure it out.

Anyway, thanks for taking the time to test this independently. Two heads/tests are better than one.

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Veets - 2010/12/13 23:30

Oh BTW I have gotten that error before about including a picture and then not being able to edit the post. It's a forum bug I believe.

Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Chakaharta - 2010/12/14 04:55

Veets, thanks for the info about the img bug -- I'll be careful in the future. 400x490px max

So in the interest of sharing some hard-earned insight in to the Monomachine Dynamix, here are my notes. I'm using the MNM OS 1.31c:

- * MIX 127 -> wet. (backwards from MD)
- * For ATK and REL, 0 = fast, 127 = slow
- * RAT knob is more linear across the entire range than the MD

In Peak mode (RMS closer to 0):

- * REL only seems to have an effect on the release when the ATK is set slow (high)
- * Turning up REL seems to be making ATK rate slower as well
- * Fast ATK and slow (any) REL doesn't respond -- the compressor immediately releases so you don't see any gain reduction ramping off.
- * To see any pumping on release, you need a slow ATK and a slow REL
- * It's almost like Release = ATK*REL
- * Attack seems to be = ATK+REL

Example: Brickwall Limiter setting: ATK 0 REL 0 THRS to suit, RAT 127, RMS 0, MIX 127

In RMS mode (RMS closer to 127):

- * ATK adjusts the attack 0 = fast 127 = slightly slower
- * REL also adjusts the attack time
- * (they seem to adjust the attack by different amounts, too)
- * Attack = ATK+REL
- * Release seems to always be AUTO, and fixed to a medium-slow release rate. I'm not 100% sure about this part, but I couldn't get it to change the behavior in any significant way in RMS mode.
- * Fastest attack is slowed down by the RMS detection integration time (this is normal for RMS compression)

You can of course blend between Peak and RMS modes to get hybrid behavior

So to summarize:

In Peak mode,

Attack time \sim ATK+REL

Release time \sim ATK*REL

In RMS mode,

Attack time \sim ATK+REL

Release time = basically fixed / AUTO

The upshot?

- * Moving the REL value higher always lengthens the attack.
- * In Peak mode, setting ATK to low values shortens the Release drastically. I don't think you can get a fast attack / slow release "breathing recovery" because of this. You can do a long attack, slow release, or move to RMS mode and get a slightly slower max attack rate, slow fixed release ...
- * In RMS mode, you can basically only adjust the attack phase using either the ATK or REL knobs.

Hope that helps you all dial in settings that you find useful, and please let me know if this doesn't describe the behavior you're seeing on your units. I've been using both terms 'time' and 'rate' above; sorry if that muddies the issue for anyone. Fast rate = short gain adjustment time, Slow rate = long gain adjustment time.

Think I'll be back to making tunes with these mysterious boxes now....

:walkaway:

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by GYS - 2010/12/14 05:05

Thanks again for this useful info! :cheer:

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Chakaharta - 2010/12/14 05:10

No prob. Let me know if it makes sense when you try it out!

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by Veets - 2010/12/14 06:56

Chakaharta wrote:

So in the interest of sharing some hard-earned insight in to the Monomachine Dynamix, here are my notes. I'm using the MNM OS 1.31c:

...major snip....

:lvl: Great job Chakaharta! Major props - I think you are currently the Elektron MD/MNM compressor master.

The upshot?

... snip....

The upshot is...go outboardB) Bring a little FMR comp to a live show or use whatever your DAW provides.

Although I do think it's great fun randomly p-locking the Dynamix. This can be very interesting, and since this compressor is borderline metaphysical (or else rocket science), the random approach makes sense.

Dynamix-the world's first Zen compressor. What is the sound of one compressor clapping & pumping?

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Re:DYNAMIX SETTINGS Once And For All...Need Sticky!!!

Posted by hageir - 2010/12/14 10:24

Chakaharta wrote:

* The HP in the Dynamix seems only run from like 20 Hz to 500 Hz or something like that. Thatâ€™s why having it all the way up at 127 still results in lots of compression from program material.

I want more on this, the HP is pretty vital,
anyone know the real values of 0-127?

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