

From the Vault: Novelkeys Cream Switch Review

-ThereminGoat, 05/20/2020

So, initially I tend to start out these reviews with a little bit of a joke or anecdote prior to actually jumping into the review material, though I'm going to start this document with a bit of news, instead. Over the course of the last week I have been lucky to obtain an internship with a rather famous research and development company working on decontaminating N95 masks on the front lines of the COVID-19 crisis. While normally this wouldn't be worth mentioning, I'm bringing it up as it is going to require me to be working 12-hour days, most days of the week for the next couple of months. Additionally, due to the decontamination units being placed close to hospitals in major cities being hit by the pandemic the hardest, I am going to be required to travel and stay in hotels for most of this time. While I am currently unaware of where I will be, I may be rotating major cities every few weeks and thus I won't be able to review new switches in the same capacity that I normally can, if any were to pop up. Not to fret, however, as in lieu of this change of schedule, I've written several documents ahead of time to release over the course of my work time such that you all can still keep to the normal expected pace of reviews from me. While I hope that the documents that I have planned alone will be enough to keep you interested and satisfied, I want to thank you in advance for sticking around in the upcoming months.

Also continuing the break from tradition, I'm aware that the 'From the Vault' series was started as a means to review and discuss modern switches that have since fallen past their limelight. However, I feel that the Novelkeys Cream switches have had a relatively unique trajectory over their year and a half long life span and are a bit deserving of a review as a result of this. Due to how old these switches are compared to some insanely popular options that are being currently being lauded in the community, I don't think that this is too far out of the scope of this theme. I may or may not be getting asked constantly about my opinion on these switches, as well, and felt that maybe I needed an official longform opinion on them.



Figure 1: Might as well toss in a 4th wall breaking caption to spice things up even further.

Switch Background

Alluding to my prior comment about the history of these switches, the Kailh Creams or Novelkeys Creams (the latter will be how I refer to them), have not only had an odd trajectory as of late, but even started out in a fashion slightly different than most other switches. Formally being announced by Mike of Novelkeys in mid-August of 2018, the Novelkeys Creams were to be the first mechanical keyboard switch to be entirely made out of POM – top housing, bottom housing, *and* stem. With an actuation weight of 55g, and a bottoming out force of 70g, these linear switches were to debut at \$0.65 per piece – which at the time was towards the mid-high tier in terms of linear switch pricing. However, rather than jumping quickly to the en masse sale like most Novelkeys switches do now, these saw a few more steps.

Around late September of 2018, roughly a month after their initial announcement, Novelkeys had several sets of samples produced and scattered to many of the more popular voices in the community, including LightningXI, Chrisswires, TopClack, TaehaTypes, and many more. These samples, in turn, spawned a wave of reviews prior to the actual first sale of these switches. With most of the reviews showing relatively positive praises for some aspects, the switches did have their initial setbacks – the most notable of which were their smell. Both switches from these initial sample reviews, as well as the first small-scale production run after their announcement had a strong chemical smell to them that disappeared over the course of a day or two if left out in the open air to breathe – which had never been seen in switches to date. Future production rounds of these Novelkeys Creams, which are still being sold as of the day that this document is being written, stepped away from this issue. While the origin of the nickname is unknown, many individuals referred to the smell as having a ‘fishy’ or ‘fish-oil’ like smell – which has led to these original Novelkeys Creams as being referred to as ‘Fish-stock Creams’.



Figure 2: Even I am guilty of a shitpost now and then - especially when I can get a two-for-one deal.

Once the Novelkeys Creams began being stocked full time, they remained somewhat accepted within the community but slowly faded from the initial spotlight that was put on them. For pretty much the rest of 2018 and nearly all of 2019, these switches remained a viable mid-tier linear switch option with aftermarket pricing near that of the original sale price. However, in early 2020, these switches saw a spike in popularity that has only been seen a couple of times in the mechanical keyboard switch community, and could be arguably be a smaller scale version of the Invyr Holy Panda aftermarket fiasco which spawned the creation of the GSUS Panda.

On January 19th of 2020, TaehaTypes released a video detailing a custom keyboard build that he had done for a relatively famous Twitch streamer/Fortnite player known as ‘TFue’. In this build, which consisted of GMK Striker caps, Novelkeys Creams, and a custom commissioned and anodized Keycult No. 1/60, Taeha effectively re-introduced Cream switches not only to his audience but also that of Tfue’s fans. Being quickly followed by an article on ‘The Verge’, there was an instant, overnight rush by people both a part of the community and new to it buying out Novelkeys Cream switches on any available platform. Regardless of the fact that the Verge article completely misrepresented the Cream switches as being both ‘rare’ and ‘clicky’, these sold out nearly immediately and began to pop up on mechmarket at rates as high as double the initial sticker price of \$0.65 per switch.

On top, the keyboard uses rare NovelKeys Cream switches, which feature a light and hypnotizing click sound not unlike that of a spray can being shaken, as one astute commenter and Taeha Types fan pointed out

THE VERGE



Figure 3: The jokes write themselves on this one. (This was quickly edited out of the article by the end of its release date.)

While this initial massive fervor for Cream switches has certainly died down, the two most recent restocking of Novelkeys Cream switches have sold out completely in under a single day’s time. Even

though no official word has been put out by Mike or Novelkeys as to how long these switches will continued to be stocked regularly for, I have no doubt the Cream switches will continue to be around for quite awhile longer, part in parcel due to both their initial positive traits and reception as well as the newer community member's strong interest in these switches. Most recently, the Novelkeys Cream top and bottom housings have been used in the Novelkeys Blueberry switches, which also sold out their initial debut sale in early May of 2020.

Cream Switch Performance

In the spirit of breaking from traditional structure, which I've already done now a handful of times in this article, I'm going to discuss the performance of these switches both stock *as well as* with lube applied to this. The reason that I am specifically choosing to do this is because I strongly feel that these switches feel *significantly* better with proper lubrication and assembly. For the lubed switches I am using for this, I simply lubed the switch with a moderate amount of Krytox 205g0. (This, as well as Gazzew's Blend #3 are my two preferred lubes for linear switches in case you were curious.)

Appearance

Note: Completely negating my previous point, the lubed appearance of these switches will not be discussed. (Please commence the riot in the Reddit post comments now.)

Unlike some of the other mechanical keyboard switches named after already existing things, these switches are easily recognizable as an off-white, 'cream' color. In fact, they sit slightly more yellow in tone than the Gateron Merlot and Mauve switches while still maintaining an overall light-colored appearance. The cream-colored top and bottom housings both have a slightly slippery like feeling that is mildly similar to a Nylon switch housing smoothness, but with less friction. The internals of these switches include a copper colored leaf and an aluminum colored spring.

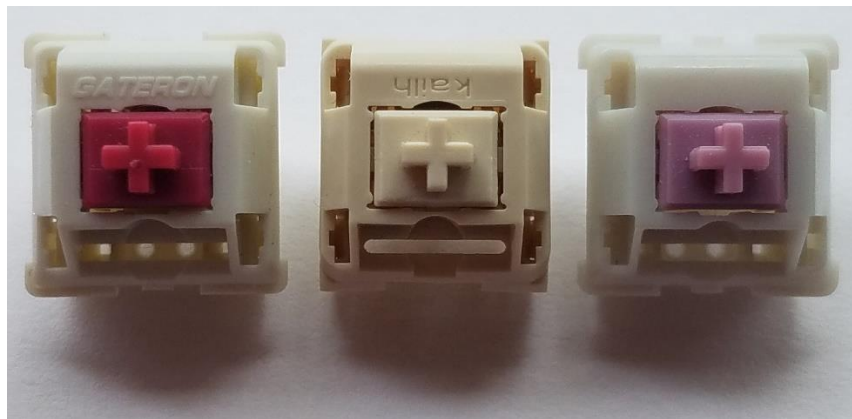


Figure 4: (L-R) Gateron Merlot, Novelkeys Cream, and Mauve.

Push Feel

Stock:

Looking first to the overall linearity of the switch and the general comparison to the force curve, I feel that these switches are pretty spot on to their representation. They have no discernable pretravel, even under the slowest testing speeds, which matches pretty closely to the force curve showing a slight force increase for roughly 0.2 mm. As well, following in line with the force curve, these have a smooth increase in the force along the stroke with no jumps or odd increases in force. The bottom out of these switches, as well, is among the most solid of the switches that I have reviewed and has a strong, solid impact without a drastic increase in spring weight or undesired feeling.

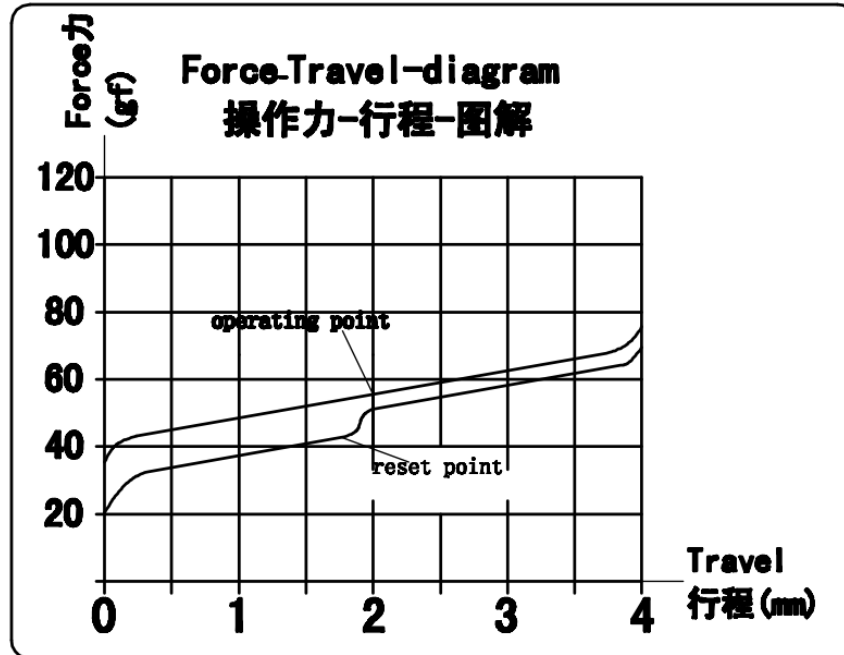


Figure 5: Novelkeys Cream force curve as provided from the specification sheet for them.

While the overall consistency in the spring and bottom out feeling is quite impressive with the Cream switches, one of the biggest issues with the stock version of these switches is the scratch. Featuring a consistent, long scratch that feels the same throughout the entirety of the downstroke and upstroke, this definitely does detract from the smoothness of the switch feeling. I will say, though, that the way that these feel in terms of scratch is definitely unique with respect to the other out-of-the-bag scratchy linear switches out there due to its consistency throughout the stroke. As well, it's worth pointing out that some of the earlier batches of these switches reported 'slippage' issues in which the scratch of these switches would temporarily increase drastically, causing a feeling of a 'jump' along the stroke in these switches. As I have discussed in the Switch Plastics Memo, this is a result of the fact that the bottom housing rails and the stems are made out of the same material, POM, and when two materials with identical coefficients of friction are rubbed against each other, they can occasionally have a 'slippage' occur. I have not been able to recreate this on my own testing, though.

Lubed with Krytox 205g0:

The major reason that I wanted to include the lubed comparison point when I chose to write this was because of the issues I discussed with scratch in the previous paragraph. A moderate amount of lubrication, on these switches, nearly completely gets rid of this long, consistent scratch-like feel while still maintaining the rest of the stroke feeling. The only notable difference, aside the scratch reduction, is that it does cause a slight dampening of the bottom out feeling and makes the overall stroke of the switch feel a bit more 'cushioned' than before. A light application of lube, from testing, tends to not get this difference, but also doesn't completely remove the consistent scratch feel to the stroke. A heavier application, on the other side of the coin, only exacerbates the cushioned feeling to the stroke.

Sound

Stock:

The stock sound of the Novelkeys Creams is definitely a detractor in same fashion that the consistent scratch along the stroke is – it's not anything that makes the switches completely unusable, but it's definitely noticeable. While the scratch is definitely most noticeable in the push feel, it does produce a

slight ‘sandpaper’ sound like when super-fine grain sandpaper is used to polish a surface. As well, the spring is definitely noticeable in the way of a tinny, metallic like sound towards the bottom part of the stroke. This is not to say that the spring ‘pings’, though, or makes any sort of high-pitched noise, even under rapid and repeated activation. The bottom out of these switches does not produce any noticeable noise under any activation speed. Overall while this isn’t a bad sounding switch, there are most certainly better sounding stock switches out there.

Lubed with Krytox 205g0:

Much like the push feel with these switches, the introduction of a moderate amount of lube reduces all of these negative sound aspects of the switches but doesn’t necessarily remove them. While the scratch sound is still ever so slightly there, it is dampened under a moderate amount of lube and the metallic spring noise becomes barely audible. Simply lubing these switches takes them a step further from a mid-tier linear in terms of sound to a mid-high tier linear in terms of sound. While I have none on hand to test this with while I am writing this, I suspect that including a switch film would only further improve and deepen the sound profile of these switches.

Wobble

There is a moderate amount of wobble in the N/S direction of these switches with a slightly lesser amount in the E/W direction. While this may be noticeable at slower typing speeds with any profile keycaps on, I doubt the noticeability at normal to high typing speeds. In addition to the stem wobble, it seems that approximately half of the Creams that I tested for this review have a slight wobble to the actual top housing, itself. This, in addition to the sound-based properties I’ve discussed before, only further increases the benefits that films would bring to these switches.

Other

While I have not tested several different grades and viscosity of lube on these switches, I would imagine that nearly any density would work with the only difference being the amount that is applied in order to get the desired reduction in scratch and improvement in sound. If you were to use a thinner lube than 205g0, for example, I’d imagine you may have to use a larger amount of lubricant to match the same improvements that I’ve mentioned here.

Another interesting point within the Cream’s history is actually one that very few people may be aware of and contains *implications* rather than a hard fact or occurrence. Towards the end of 2019 I wrote a long document detailing the history of Stealios and the fake Zealios controversy that led to the rise in popularity of JWK/Durock as manufacturers in the switch scene. As I was digging through evidence and prior conversations while putting this document together, I arrived at a picture sent directly from a sales representative at Durock detailing some of the switch stems that they offered at the time. Note, that this picture was sent by the sales rep approximately a month prior to the apology notice sent about by Wei of KBDFans and the explosion of the controversy to the mainstream.

As a result of this picture, it’s been my long-standing belief that Durock either has had the capacity to or has actually copied Novelkeys Cream switches at one point or another along their production life. While I have not been presented with any further evidence that this has actually happened, I still think it is an interesting point worth mentioning.



Figure 6: Durock Sales Rep photo featuring what appears to be Cream-like stems in the middle.

Comparison Notes to Other Notable Linear Switches

Note – These are not aimed at being comprehensive comparisons between all factors of these switches as this would simply be too long for this writeup. These are little notes of interest I generated when comparing these pieces to the Creams side by side.



Figure 7: (Top-Bot, L-R) Switches used for comparison: Alpaca, Tealio V2, Gateron Merlot, Gateron Milky Yellow, C³ Tangerine V2, and Gateron Ink V1.

Alpaca

- The Alpacas feel like, at a high-level comparison, a ‘lighter’ relative of the Cream switches with respect to both the sound and push feel/scratch of these switches.
- While it’s not too fair to compare hand lubricated switches to factory lubrication, as hand lubrication can be tuned and is effectively unique to each individual, introduction of lube to the Cream switches puts them on par with stock Alpacas in terms of smoothness.
- Alpacas feature a similar tinny, non-high pitched metallic spring noise, though its more audible than the Cream switches.

Tealio V2

- The Tealios V2 switches feature a similar ‘consistent’ scratch to the Creams throughout their stroke, though its significantly lesser than in the stock Creams. My moderate application of Krytox 205g0 to the Creams, in this instance, put them to a nearly identical level of scratch.
- While these switches have a similar N/S wobble to the Novelkeys Creams, the Tealios have much less E/W wobble.
- Unlike the Creams, however, the Tealios do feature a ping-y spring noise to them, which is especially noticeable under high levels of activation.

Gateron Merlot

- In terms of sound, these have a nearly identical scratch sound to the Novelkeys Cream switches.
- The Merlot switches have a marginally greater amount of wobble in both the N/S and E/W direction as compared to the Novelkeys Cream switches.
- The bottom out of the Gateron Merlots has a much more hollow and bouncy feeling and sound as compared to the Novelkeys Cream switches, which have a much more quiet and solid sound.

Gateron Ink V1

- The overall stock feeling of these switches is much smoother than stock Novelkeys Creams, and are definitely competitive to the moderately lubed Creams that I tested.
- The bottom out of the Gateron Ink V1s is very loud and plasticky, which sounds quite jarring when compared to the Cream’s bottom out sound.

- In terms of cost per quality, if you are someone far enough along into the hobby that you would be lubing and/or filming your own switches, these are pretty comparable to Creams in terms of quality.

Milky Gateron Yellow

- Honestly, Milky Gateron Yellows are among one of the most underrated and under-utilized linear switches in the current, linear-heavy mechanical keyboard community scene.
- While there is an overall lesser scratch sound in the Milky Yellow switches, the bottom out noise is very loud and plasticky, in a similar fashion to the Ink V1 switches.
- The overall sound of the stock Milky Gateron Yellows is much deeper than both the stock and lubed Novelkeys Cream switches.

C³ Equalz Tangerine V2 (67g)

- Without much surprise, the Tangerine V2 switches are much smoother than the stock Novelkeys Creams. With respect to the hand lubed Novelkeys Creams, the Tangerine V2s are comparable in terms of smoothness. (And because I did a fantastic lube job.)
- There is a similar amount of wobble in the N/S direction between the Tangerine V2s and Creams, though the Tangerine V2s have a marginally lesser wobble in the E/W direction.
- As mentioned with several of the other linear switches in this list, the bottom out noise in the Tangerine V2s is much louder and slightly hollow sounding compared to the bottom out of the Cream switches.

Final Conclusions

While the interest in the Novelkeys Creams has drastically changed over its history as a result of influencer reviews and articles, I have maintained from the start and continue to maintain that they are a strong linear option that is towards the high-end range *if* you are willing and/or able to do lubrication and assembly on your own. The Creams have both a relatively unique feel and sound to them that makes them an interesting option in their own right but can easily be improved upon given modifications. As well, I've seen many individuals use both the stems and the housings as frankenswitch building components to much success when mixed with other linear switch components. In this respect, I can put my money where my mouth is and say that I have a build that I frequently use with UHMWPE Stems in Cream Housings and 70g springs, and absolutely would consider desoldering them to use in a future build.

Only time will be able to tell if the Cream switches remain as popular as they currently are in early 2020, as well as if they will remain a stocked switch in Novelkeys' store. Regardless of whether or not these switches fade into obscurity as newer and newer switches pour onto the market, the Novelkeys Cream switches have most certainly carved an undeniable legacy in the community thus far.

Further Reading

Novelkeys' Cream Switch Sales Page

Link: <https://novelkeys.xyz/collections/switches/products/novelkeys-cream-switches>

Wayback:

<https://web.archive.org/web/20200517021148/https://novelkeys.xyz/collections/switches/products/novelkeys-cream-switches>

u/Krelbit's Novelkeys Cream Switch Review

Link:

https://www.reddit.com/r/MechanicalKeyboards/comments/9cpmfm/novelkeys_cream_switches_review/

Wayback:

https://web.archive.org/web/20200517021111/https://www.reddit.com/r/MechanicalKeyboards/comments/9cpmfm/novelkeys_cream_switches_review/

u/LightningXI's Novelkeys Cream Switch Review

Link:

https://www.reddit.com/r/MechanicalKeyboards/comments/984ck8/first_impression_of_the_kailh_cream_switches/

Wayback:

https://web.archive.org/web/20200517021036/https://www.reddit.com/r/MechanicalKeyboards/comments/984ck8/first_impression_of_the_kailh_cream_switches/

Novelkeys' Keebtalk Cream Switch Introduction Thread

Link: <https://www.keebtalk.com/t/introducing-the-novelkeys-cream-switch/3249>

Wayback: <https://web.archive.org/web/20200517021003/https://www.keebtalk.com/t/introducing-the-novelkeys-cream-switch/3249>

Novelkeys' Reddit Cream Switch Introduction Thread

Link:

https://www.reddit.com/r/MechanicalKeyboards/comments/96ilic/introducing_the_novelkeys_cream_switch/

Wayback:

https://web.archive.org/web/20200517020918/https://www.reddit.com/r/MechanicalKeyboards/comments/96ilic/introducing_the_novelkeys_cream_switch/

Switches.mx Novelkeys Cream Info Page

Link: <https://switches.mx/novelkeys-cream>

Wayback: <https://web.archive.org/web/20200517020655/https://switches.mx/novelkeys-cream>

TheVerge TFue Keyboard Article

Link: <https://www.theverge.com/2020/1/29/21112581/taeha-types-mechanical-keyboards-custom-twitch-tfue-fortnite-streaming>

Wayback:

<https://web.archive.org/web/20200517020608/https://www.theverge.com/2020/1/29/21112581/taeha-types-mechanical-keyboards-custom-twitch-tfue-fortnite-streaming>

Chyrosran22's Novelkeys Cream Switch Review

Link: https://www.youtube.com/watch?v=KJT_P-ARxSs

TaahaTypes's S7 Elephant Novelkeys Cream Typing Test
Link: https://www.youtube.com/watch?v=5JdB_jMgKoc

TaahaType's Tfu Keyboard Video
Link: <https://www.youtube.com/watch?v=u3Fy4PkpTVs>