Novelkeys Blueberry Switch Review

-ThereminGoat, 05/07/2020

Honestly, I don't have much in the way of pre-review witty remarks for this review. It may have something to do with being locked inside for weeks on end and pretty much everything being stuck at a stand-still. At this point I'm not even sure anymore.

Switch Background

As I sat down to write this section I did have to take a long look at my Novelkeys Sherbet Switch Review, as it truly felt as if these new Novelkeys Blueberry switches came onto the scene in a very similar, relatively undiscussed fashion and I didn't want to write the same thing twice. Marking the second custom switch created with direction of and sold through Novelkeys this year, the Blueberry switches have been being hinted at in the 'Inventory' page of Novelkeys since the beginning of 2020. Even though these switches finally made their debut sale earlier last week at the end of April 2020, no new switch has been teased in the inventory page yet even though Mike (one of the owners of Novelkeys) has hinted at a few more switches being in development.

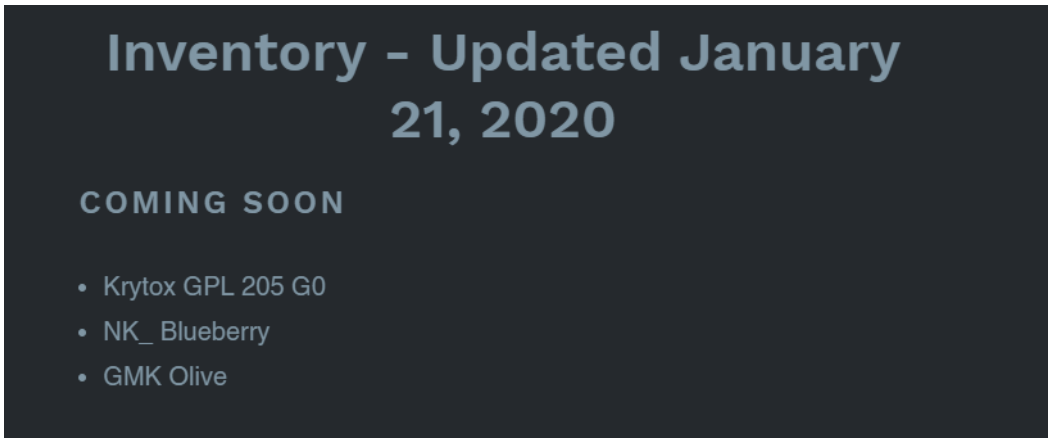

Figure 1: This has pretty much been the entirety of their marketing up until their sales debut.

Unlike the NK Sherbet switches, though, the Blueberry switches definitely took off with much more fervor. While some may speculate the popularity of these switches comes due to having Kailh Cream housings, the positive reviews from both TopClack and TaehaTypes in the weeks leading up to the sale definitely did not hurt their initial buyout at all. Also deviating from the NK Sherbet switches a bit further, these new tactile switches were actually brand-new designed stems in pre-existing in Kailh Cream houses in the same fashion as how Novelkeys debuted the 'Purple Trash Panda' switches towards the end of 2019, rather than minting a new switch from the ground up. With an actuation force of 55g and bottom out of 80g, these rather heavy tactile switches sold out their debut run within an hour of the initial posting at a price tag of $0.65 per switch.

Blueberry Switch Performance

As a bit of a side note, while I do appreciate Novelkeys and Kailh selling these new stems as completed switches from a collector's standpoint, I do want to stress in this review that the only real differences between this 'switch' and the Novelkeys Cream switches are the stem and a slightly heavier spring. This seems to be some sort of sales decision made on the side of either Kailh or Novelkeys as this same exact practice had occurred previously, as mentioned above, with the Purple Trash Pandas.

Appearance

Looking at these switches there is no mistaking immediately that these switch housings are the same exact material and make of the Cream switches, as they feature that same off-white cream color POM that they are known and loved by all TFue fans for. (However, unlike the first batch of Novelkeys Creams, these do not feature a fishy smell to them at all.) The stems of these switches have a very bright, vibrant blue color and are almost too bright to possibly be the same color as their namesake fruit, though this was likely done to help differentiate them from other blue colored stems on the market. If they were any darker, in fact, they might more closely resemble the same color as Zeal's heavier Zilent switches.

However, one thing worth discussing in depth here is that *regardless* of the shade of blue used for these stems, there is absolutely no way upon inspecting them directly that they could be misconstrued for any other stem currently available on the market. As can be seen in the picture below, these Blueberry stems feature a strangely large set of legs as compared to other, normal tactile switches that have been produced before. Simply looking at this picture and tracing the leg from the beginning to end of the stroke, or left to right, we can already begin to see on visual inspection that these definitely will feel unique.

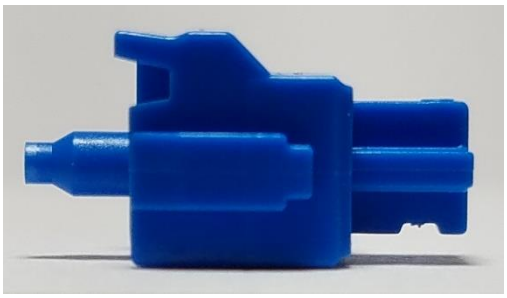

Figure 2: It looks like it could compete in the Arnold Classic with a build like that.

Push Feel

Moving the end of the previous content along into the more appropriate section, it can be seen that the beginning of the stroke, shown below in the red box, is fairly standard compared to other switches currently on the market. However, the orange and yellow boxes that follow it, which form the "two stage" bump that people are discussing is quite strange. As the Blueberry switches are pressed in, you will encounter the bump in two stages, first reaching the orange box that represents a small, subtle 'ramp' to the yellow box which is a wide, 'bump plateau'. The orange box 'ramp' is actually encountered quite early on in the stroke (~0.75 mm) and the quick change to the yellow box 'plateau' really stretches out the feeling of the stroke throughout the first 3 mm of the 4 mm travel. However, once the end of the plateau is reached, the stroke enters the green box or 'drop off' which is where a bit further odd behavior occurs.

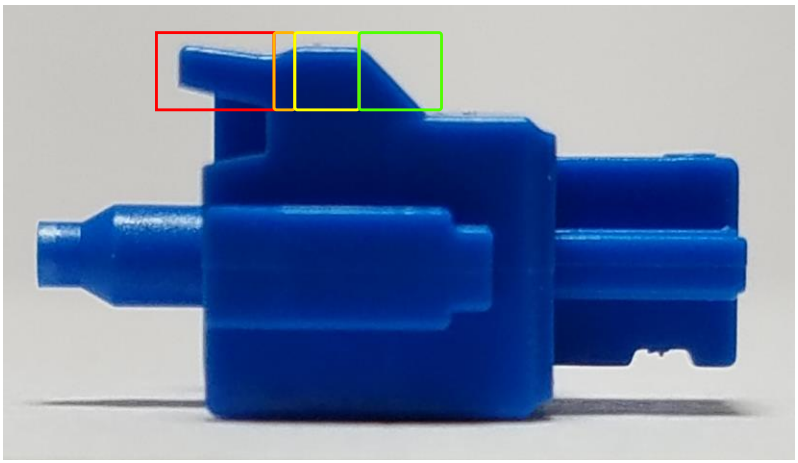

Figure 3: Stem picture fitted with the different colored regions as discussed in the 'Push Feel' section.

Looking at the green box, there is an immediate and sharp drop off at about a 45 degree angle that rapidly removes the tactile feeling from the switch and leaves a bit of a 'post-travel' linear region for the last millimeter of the stroke. This is most certainly unique among the switches I've tested, as normally linear regions are considered with respect to 'pre-travel' prior to tactile bumps in switches. Of the reviews

and conversation I have seen thus far along, this is seeming to some people to produce a “two bump” sequence, though my argument is that the two bumps are as a result of the small ramp followed by the large plateau. The long, drawn out nature of the tactile bump followed by this immediate drop off in the leg actually produces, in my opinion, what feels like three distinct stages in the activation of this switch:

-Region 1: The quick activation and small bump produced by the subtle ‘ramp’ as seen in the orange box.
-Region 2: The long, drawn out switch bump is due to the combination of the orange box ‘ramp’ and yellow box ‘plateau’.
-Region 3: The one millimeter linear ‘post travel’ in the green box.

Upon further considering the force curve for these switches, which can be found on Novelkeys’ sales page, it becomes immediately clear that this ‘three stage’ definition of the stroke makes sense. Note, when looking at a force curve diagram, any inflection points, or change in the curvature, of the force between two nonlinear regions along the travel axis is what produces a ‘bump’ like feeling. Inflection points can easily be seen at roughly 0.75 mm, corresponding to the border of the red and orange boxes as well as at 3 mm, corresponding to the border of the yellow and green boxes.

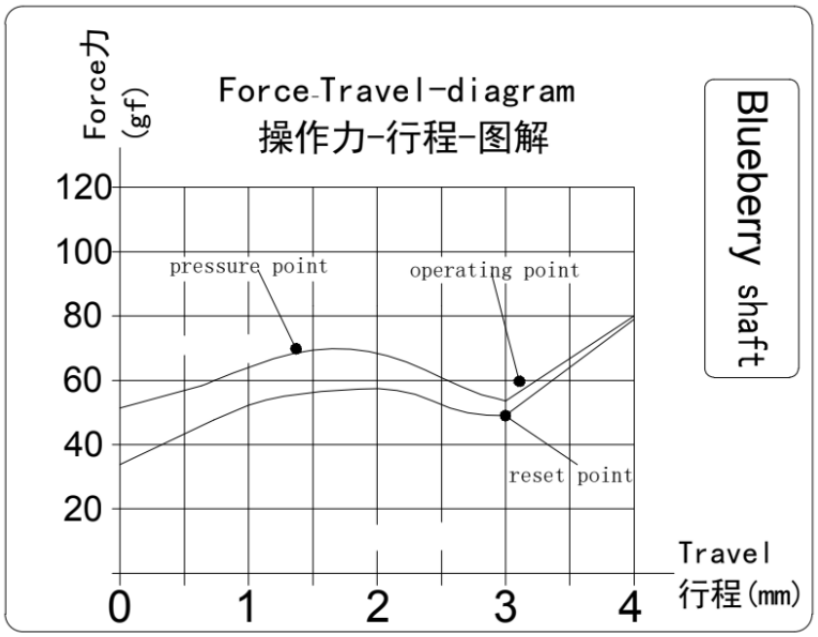

Figure 4: Blueberry switch force curve diagram as provided on Novelkeys' sales page.

Past the rigorous breakdown of the tactile stem bump, these switches definitely do have a very noticeably large bump to them when activated under normal typing speeds. In fact, I was a bit surprised that the ‘post bump’ linear section (green box) actually nearly disappears from the push feel of the switch when used at a normal typing speed. Unsurprisingly, however, there is a fair amount of scratch to the switches in the same fashion that there is with stock Novelkeys Creams. While I would argue that these have an overall lesser scratch and less slippage issues since the stems and the housings are not made of the same material, there is still *some* noticeable scratch in the sound and push feel of these switches.

<u>Sound</u>

While I find the tactile bump of these switches rather unique in a good and surprising fashion, the out of the bag sound is a bit lacking. The first and foremost thing that I noticed is that there is a decent amount of audible pinging that comes from the springs that is unfortunately aggravated by higher typing speeds. I am decently sure, however, that this can be remedied either entirely or partially through the

lubing of the springs by any method. While the downstroke has a pretty solid and muted ‘thunk’ to it, the upstroke sound is definitely the loudest portion of the stroke of this switch and it comes with a higher pitched tone to it. That is not to say, however, that his upstroke noise is harsh or even too loud. In fact, I think that this upstroke noise walks a fine line between a solid, heavy type sound and a light, plasticky like sound that makes the switches themselves feel hollow and a bit cheap.

Wobble

The wobble on these switches is actually fantastic with respect to both the N/S and E/W directions and is definitely within the range that it likely isn’t noticeable even with caps on. While by no means were the original Novelkeys Creams poor with respect to wobble, these stems were definitely better designed with the top housing tolerances in mind.

Other

Due to the fact that these are essentially just new stems rather than an entirely new switches from the ground up, I chose to buff out the word count a little bit and test the Blueberry stems (with their stock springs) in some different housings purely for curiosity’s sake more so than anything. The different housings that I used were a Gateron Ink V1, an Aliaz, a KBDFans T1 Night, and an Invyr Panda V3 housing.

Interestingly enough, my findings were pretty split down the middle in terms of how the Blueberry stems felt in other housings, and they were either astounding or entirely forgettable, which leads me to believe that attempts at finding new frankenswitches with these will have absolutely no grey area to it. With respect to the Gateron Ink housings and the Aliaz housings, the tactility is severely reduced and almost completely removed in the case of the Gateron Ink housings. While I am uncertain as to why this is exactly, it is likely that something about the leaves in Gateron switches, both new and old, that do not gel well with the tactile Blueberry stem.

On the other hand, the KBDFans (or JWK/Durock) housings as well as the Invyr Panda V3 housings were absolutely fantastic switch housings to put these stems in. In both of these instances, as compared to stock Novelkeys Blueberry switches, these have a much sharper, crisp bump and noticeably less of a ‘post travel’ region. While I did notice an occasional stick in the upstroke of the Blueberry stems in Invyr Panda V3 housings, I anticipate that this will likely be lessened once lube is applied. If you happen to have either of these switches lying around and grabbed NK Blueberry switches in the sale, I absolutely suggest you should try out these combinations as they both really improve that long, large tactile bump that the Blueberry switches are going for.

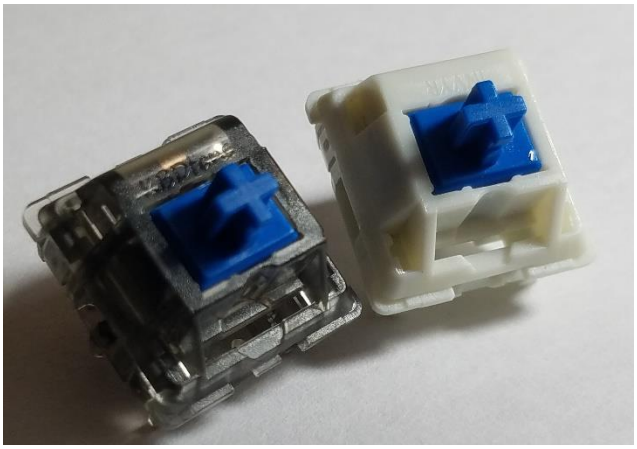

Figure 5: Late 90's family portrait style shot of these interesting frankenswitch brothers.

As a little bit of an additional note added onto here with respect to modifying the Blueberry switches, a video came out literally last night by Andy Nguyen detailing how swapping the Blueberry switches to a lighter spring weight causes them to catch on the upstroke and thus not be able to complete a full press. While I, myself, don't have a set of different spring weights to determine at what exact spring weight this failure to return occurs, it has been something that I have heard in passing from people who have received their switches already. I would suggest that if you are considering swapping these to a lower spring weight, even one only a few grams lighter, that you check out his video under 'Further Reading.'

Comparison Notes to Other Notable Tactile 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 Blueberries side by side.

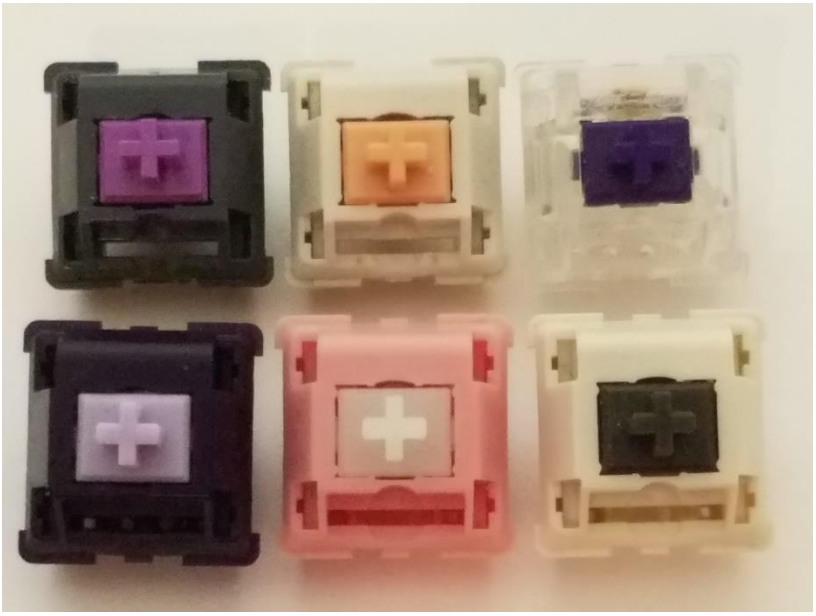

Figure 6: Switches for Comparison. (L-R, Top-Bot: Purple Trash Pandas, Invyr Holy Panda V3, Zealios V2 68g, Lilac, Okomochi, Koala)

Invyr Holy Panda V3

- Both with caps on and off, there is a noticeably larger amount of N/S wobble in these switches compared to the stock Novelkeys Blueberries.
- Due to the relatively small size of bump as compared to the Blueberry switches, these definitely feel as if they have a significantly lesser tactility than the Blueberry switches.
- The above point is even more true when comparing the Invyr Holy Panda V3 switches to the Blueberry stem frankenswitches I mentioned before. The tactile bump of these frankenswitches both are strikingly more tactile than the stock Blueberry switches.

Zealio V2 68g

- While the Blueberry switches are a bit scratchier both in terms of feel and sound as compared to the Zealios V2, these are actually pretty close to each other in terms of the size and feel of the larger tactile bump.
- The spring ping noise is present in both these and Blueberries, though the Zealios V2 have a significantly higher pitched sound to the ping than the Blueberries.

- Much like the Invyr Holy Panda V3, the Zealios have slightly more wobble than the Blueberry switches.
- The same point mentioned previously about the "raw tactility" of the frankenswitches being significantly greater applies here as well, much to my surprise.

Lilac
- While these definitely deserve some more consideration in the medium-light tactile switch range, these definitely were overshadowed by their linear partner they ran with on ProjectKeyboard, the Mauves.
- These switches definitely are smoother and feature a much better stroke in terms of wobble, smoothness, and bottom out feeling than the Novelkeys Blueberry switches, but they are definitely not in the same class of tactility.
- Compared to the other switches on this list, this is the closest to the "early bump" feeling described with the Blueberry switches, activating quite towards the top of the stroke.

Okomochi
- A slight step up in terms of tactile bump size and feel as compared to the Lilacs, these switches still feature a slightly lesser tactility than the Blueberries, but over a much smaller region.
- Personally, I honestly feel like these are among some of the best mid-range tactile switches that you can put into a board since more stuff has come out after it.
- No spring ping in these switches as compared to the Blueberry switches, and pretty similar wobble in both the N/S and E/W direction.

Koala
- These are definitely the most similar in terms of scratch, both sound and feel, to the Blueberry switches out of any of these on the list.
- While the tactile bumps feel as if they start out the same between these and the Blueberry switches, there is a significant difference immediately as soon as the Blueberry switches hit the second stage 'plateau'.

Purple Trash Panda
- After trying these switches again, I can definitely tell that they served as the inspiration for the Novelkeys Blueberry's tactile bump. While it is definitely a smaller bump in terms of stroke distance, it definitely does feel similar.
- The sound of the Purple Trash Pandas is definitely a bit more solid and plasticky where as the bottom out/upstroke sounds of the Blueberries are higher pitched.
- The wobble on the Purple Trash Pandas is mildly greater than the Blueberry switches in both the N/S and E/W directions.

Final Conclusions

As compared to the Novelkeys Sherbet switches, which were released pretty unceremoniously earlier this year, I definitely have a feeling that the switches that are in the works for Novelkeys and Kailh this year will continue along this experimental track trying to push innovation in some new and interesting ways. Unlike the Sherbets, however, I definitely do like the direction that these are pushing tactiles towards. While many people have been having mixed feelings about the “two step” bump, I honestly think it’s not nearly as noticeable once actually being used at typing speeds as people are making it out to be. I do think in the future that there will be improvements to this as well as the slightly odd ‘post bump linear’ third region to the force diagram of these switches, as these are my only critiques with the actual stem and bump profiles themselves.

Thus, overall, while I feel these switches aren’t endgame material on their own – I definitely think these are only a step or two away from really driving up the amount of tactility that we will see from highly tactile switches. In the meantime, however, I honestly would suggest taking a look at trying them in other housings to see if you can increase the tactile feel while reducing some of the more odd parts of the force curve in these switches. Even though earlier tests definitely have shown me that this will result in complete hits or misses in terms of switches, finding a good one will leave you set for quite awhile in terms of an endgame tactile switch.

Further Reading

Novelkeys Blueberry Sales Page
Link: https://novelkeys.xyz/collections/switches/products/nk_-blueberry
Wayback: https://web.archive.org/save/https://novelkeys.xyz/collections/switches/products/nk_-blueberry

TaehaTypes Typing Test
Link: https://www.youtube.com/watch?v=SLqGjNRPXkU

Novelkeys Blueberry Switch Sale Reddit Announcement
Link:
https://www.reddit.com/r/MechanicalKeyboards/comments/g1u75q/novelkeys_updates_nk65_v2_and_entry_edition/
Wayback:
https://web.archive.org/save/https://www.reddit.com/r/MechanicalKeyboards/comments/g1u75q/novelkeys_updates_nk65_v2_and_entry_edition/

Andy Nguyen Blueberry Spring Swap PSA
Link: https://www.youtube.com/watch?v=letEumpqt68