

Kailh Christmas Tree Switch Review

-ThereminGoat, 03/13/2022

Christmas in... March? While spring has already started for many of you with the first sprigs of grass finally starting to show, we here in Minnesota are still getting a lovely slew of subzero days with sporadic inches of both snow and ice in our "spring". Even though I was warned well in advance that this is how spring would be and that it would likely continue for at least another month beyond this point, I don't quite think I had truly taken to heart this is how it would be. Thus, with my cold, born-three-sizes-too-small heart being further shriveled by the wind chills on my walk to the Metro this week, I figured what better switches to review one of Kailh's latest creations – the Christmas Tree switches. Hell, Minnesota might still be cold enough for these references to be reasonable in a review in July, but something tells me you all would be upset if I waited until then to publish my next review.



Figure 1: Stupid weather rodent ruining my head start on my summer tan.

Speaking of Christmas in March, though, as many of you may have seen I finally got around to organizing my switch testers and actually updating my catalogue of my collection. After letting switches pile up on my bookshelf over the past few months similar to that of Christmas gifts under the tree, I got myself up super early last weekend and spent all day toying around with all of the new switches and finally organizing them not unlike Christmas Days from years. Thanks is owed in no small part to Space Cables for helping me cut this latest of my switch tester displays. Without it, I wouldn't have been able to post the switch family photo with 1,458 unique mechanical keyboard switches which you all have probably seen on my social media by this point in time. While I'm not entirely certain where the collection will be when it's *actually* Christmas this year, or by the time that the website officially turns three next year, I can't help but wonder what 2,000 unique mechanical keyboard switches will look like. Maybe if I'm a good goat this year Santa will finally get around to getting me some of those fancy, Cherry MX red housing prototypes...



Figure 2: Switch collection family photo as of early 2022 with 1,458 unique mechanical keyboard switches.

Switch Background

Aside wanting to mildly force a reference to the big company marketing spin of ‘Christmas in July’ in a completely inopportune time of the year, one of the biggest factors which initially had pushed me to write this review came squarely down to the fact that Kailh has been pumping out switches quite literally like Santa’s elves over the past few months’ time. Whereas the other comparably large company in Gateron has announced and sold quite a few excellent switches in 2022 with very recent releases such as the Gateron CJ and Oil King Switches, Kailh has been utterly outpacing Gateron with something around 9 new switches released throughout 2022 thus far. While many of you are likely reading this review well after its initial release date, and likely in a more holly and jolly season at that, with this review being published on the 73rd day of 2022, this means that Kailh has been putting out a new switch about every eight days on average thus far. And this is all being done amidst global material shortages, a questionably still relevant pandemic, and something mildly feigning as the start of WWII at that.

While the overwhelming glut of releases from Kailh is only further exacerbated by looking only a few months back into 2021 as well with the releases of the Jellyfish, Deep Ocean, and Super Speed lines of switches, the already extensive lineup of releases from Kailh so far in 2022 includes the following switches as of the time of writing this review:

Kailh Box Mute Jade



Figure 3: Kailh Box Mute Jade switch.

Released in early January of 2022 after several months of production and design delays, the Novelkeys-ran Box Mute Jade switches were a unique offering featuring a dampened clickbar design unlike that seen previously in other clicky switches. Coming in rather heavily at 82g. of bottoming out force, these switches were priced at \$16.20 per pack of 36 switches, or \$0.45 per switch and continue to be stocked on Novelkeys as of the time of writing this review. A much more thorough and eloquent discussion about these switches can be found in my Kailh Box Mute Jade Switch Review.

Chosfox & Kailh Clione Limacina Switches



Figure 4: Clione Limacina marketing photo from Chosfox's groupbuy sales page.

Ran as an extremely brief groupbuy through the first half of February 2022, the Clione Limacina switches appear to be Kailh's first non-box attempt at the entirely transparent switch housing which was made incredibly popular in 2021 via brands such as Everglide, Outemu, Zeal, Gugu, and more. Following only a few months after the release of the Kailh Jellyfish switches, the Clione Limacinas came in two different weights in both tactile (48g, 58g) and linear (38g, 48g) variants. Sold seemingly exclusively through a vendor by the name of Chosfox, these switches were priced at \$0.62 per switch with an estimated delivery time in March of 2022. And no, I sure as hell don't understand what the name is supposed to mean, either.

Chosfox & Kailh Box Speed Ultimate Switch



Figure 5: Chosfox & Kailh Box Speed Ultimate switch.

First introduced for pre-order on January 9th of 2022, the Box Speed Ultimate switches are an old-style Box switch designed by Kailh featuring a couple of their iconic marketing prefixes from various previous switch releases. In addition to the classic Box mechanism from which the 'Box' switch name is derived, these switches also have a reduced total travel distance of 3.8 mm (versus a standard 4.0 mm) in addition to a slightly shorter distance to activation at 1.2 mm in downstroke distance like that of the Navy Speed Thick Click switches released several years ago. Additional points of note about these switches which were priced at \$0.66 per switch are that they are marketed as having POM-based bottom housings as well as a long, 55g. bottom out gold spring. As of the time of writing this review, these switches remain in stock on Chosfox's storefront for the foreseeable future.

Kailh MX Midnight Switches

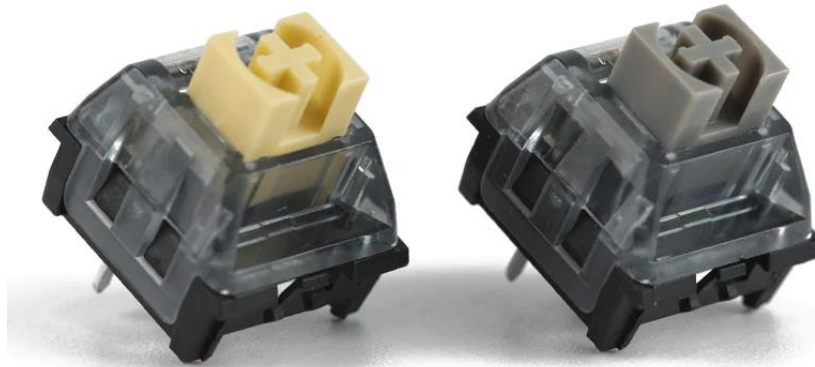


Figure 6: Kailh Midnight switches photographed for Chosfox's sales page.

Completely different than that of any prior releases made by Kailh to date, the MX Midnight duo of switches are a tan/gray over dark grey colored, dustproof stemmed pair of switches featuring dampened sound characteristics. The tan stemmed Midnight switches are silent tactile in nature and rated for an actuation force of 40g. with no other information regarding their bottoming out weight. The grey stemmed Midnight switches, on the other hand, are silent linear in nature and are marketed as being 45g. at actuation force. Priced at \$0.56 per switch in packs of 30 only, these switches appeared to have been released in the same vein of design as that of the Super Speed line of switches as well as the Box V2 switches seen below, given their updated design features and shared black bottom housing design.

Kailh Box V2 Switches



Figure 7: Kailh Box V2 switches photographed for Chosfox's sales page.

The latest of the switch releases to be announced by Kailh out of any of the switches on this list, the Box V2 switches fall in line with the classic White, Red, and Brown offerings which have been a stock option seemingly as long as Kailh has existed as a company. Being updated with gold-plated long springs and supposedly longer lifespans, these three switches appear externally identical to that of their predecessors save that of the aforementioned black-colored bottom housings. As of the time of writing

this review, these are currently priced at \$0.35 per switch in packs of 10 on Chosfox and assumedly on more eastern-facing vendors that Kailh typically stocks these types of switches.

Kailh Christmas Tree and Santa Hat Switches

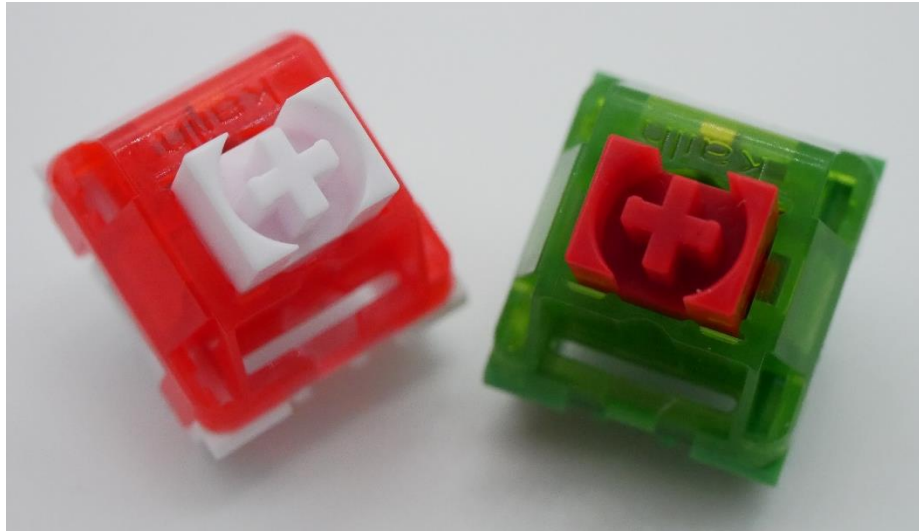


Figure 8: Kailh Santa Hat (left) and Christmas Tree (right) switches.

Dubbed differently in nearly every single piece of advertising that exists of these switches from Chosfox, the Christmas Tree and Santa Hat switches were a duo of switches ran via groupbuy in the latter half of February 2022 with estimated deliver times in March. The groupbuy price was conducted only for packs of 70 switches at \$45 per pack or \$0.64 per switch. Both being linear switches, the Christmas Tree switches were rated slightly higher at bottoming out at 70g. of force over that of the 55g. of bottoming out force of the Santa Hat switches. Coming in rather festive, dustproof style housings, little other external information exists of these switches to the best of my knowledge other than what can be recovered from the Wayback Machine’s look at the Chosfox groupbuy page.

While the above slew of releases by Kailh isn’t exactly unprecedented for switch manufacturing companies after the explosion in customizable switch releases over the past few years, the sheer amount of releases for a company as large and as OEM-focused as Kailh is certainly surprising. A much more interesting and subtle detail about these releases mentioned above, though, is that the vast majority of them seem to be running through a relatively new vendor by the name of Chosfox. Historically, Kailh has always been a manufacturer tied intimately with that of Novelkeys, and as best as I can remember Novelkeys has forever been the lead distributor of more enthusiast-grade Kailh switches in addition to being the lead collaborator with them on truly ‘new’ switches such as the Novelkeys x Kailh Creams. Compared to the traffic and notoriety of a company the size of Novelkeys, Chosfox is relatively new and unproven, further making it strange that the majority of Kailh’s recent releases appear to be solely stocked through Chosfox alone. That is not to say, though, that it appears Chosfox is stealing any offerings away from Novelkeys as announcements discussed in my Kailh Box Mute Jade Switch Review indicate that Novelkeys is continuing to collaborate on further expansions of the ‘Cream’ line of switches that they’ve become quite well known for. From the outsider perspective, it simply appears as if Chosfox is now the side-vent for Kailh to both test and release strange new switch designs relative to that of their old releases.

Much more broadly speaking, this trend in manufacturer and brand association shifting is another unnoticed series of events which has been happening over 2022 that I’m not certain if anyone has picked

up on. In addition to the new Kailh and Chosfox relationship mentioned above, the recent Holy Panda X release by Drop which was manufactured by Gateron appears to fit into this shifting allegiances category as well. Not only is Gateron taking on the branding of the Holy Panda switches, something which has never historically been associated with them prior as I had discussed in my HPX Switch Review, but their entirely in-house Gateron design effectively cuts off the production and usage of Input Club's Halo True stems for Holy Panda switches. While more suspicious members of the community suspect that this shifting of the 'Holy Panda' name to that of an entirely Gateron-made switch was done by Drop in order to pay Invyr, Mech27, and Quakemz a smaller per-switch royalty than they were paying to Input Club for the use of their Halo True stems, I can confirm none of those details for a fact. The fact that it even *is* a rumor though points to a shifting of allegiances amongst large manufacturers and vendors already in 2022, which may lead to many more interesting changes in the switch landscape in the months to come.

Christmas Tree Switch Performance

Note: If it wasn't obvious by the title of this section, this review will focus on the Kailh Christmas Tree switches and *not* the Santa Hat switches. For all intents and purposes, these should be similar given that their difference is in spring weighting, alone.

Appearance

At the highest level, the Kailh Christmas Tree switches look pretty much analogous to what would be expected of if you pitched the idea of a 'Christmas Tree' switch. While our faith in name-color scheme relationships has been slightly rattled recently due to the Holy Panda X switches, I promise you this is how these things sort of design choices are normally handled. Featuring a dustproof red stem in a translucent green over opaque green housing setup, the material of these housings is unknown to the best of my knowledge. In addition to the red and green festive setup, these switches also feature a new "tower spring" design which will be shown off and discussed a few paragraphs below this one.



Figure 9: Or right here for that matter, in the event that you don't like scrolling.

Looking first to the top housings of the Christmas Trees, they are by all intents and purposes rather plain. In fact, they are so plain that on neither the inside nor outside could I immediately recognize any mold markings of number, letter, or logo origin which is something rather strange for modern switches released nowadays. This lack of identifiable symbols aside, the outside of the top housings still rather obviously betray that these are 'kailh' switches based on their inverted nameplate region with this name present. Externally they also feature a wide, thin rectangular LED slot with a circular section in the

center for better holding of specific through-switch LEDs in completed builds. Internally, there are no distinctive features which really stand out to me as unique amongst these switches, but I will choose to point to the 5 mold ejector circles along the upper rim of the housing as well as the pair of similar circles spaced out on either end of the raised bar sitting just inside of the LED slot region. While the exact feature of this particular stepped region is still unknown to me exactly, I suspect it has to do with helping the 'seal' between the top and bottom housings in the closed position.



Figure 11: Kailh Christmas Tree top housing external design showing classic 'kailh' nameplate.

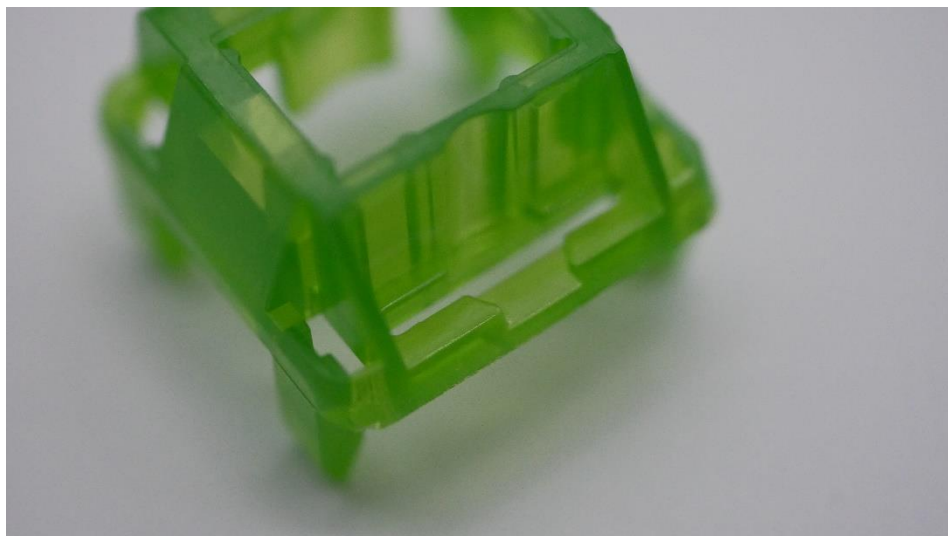


Figure 10: Kailh Christmas Tree top housing external design showing wide LED slot with centered circular holding region.

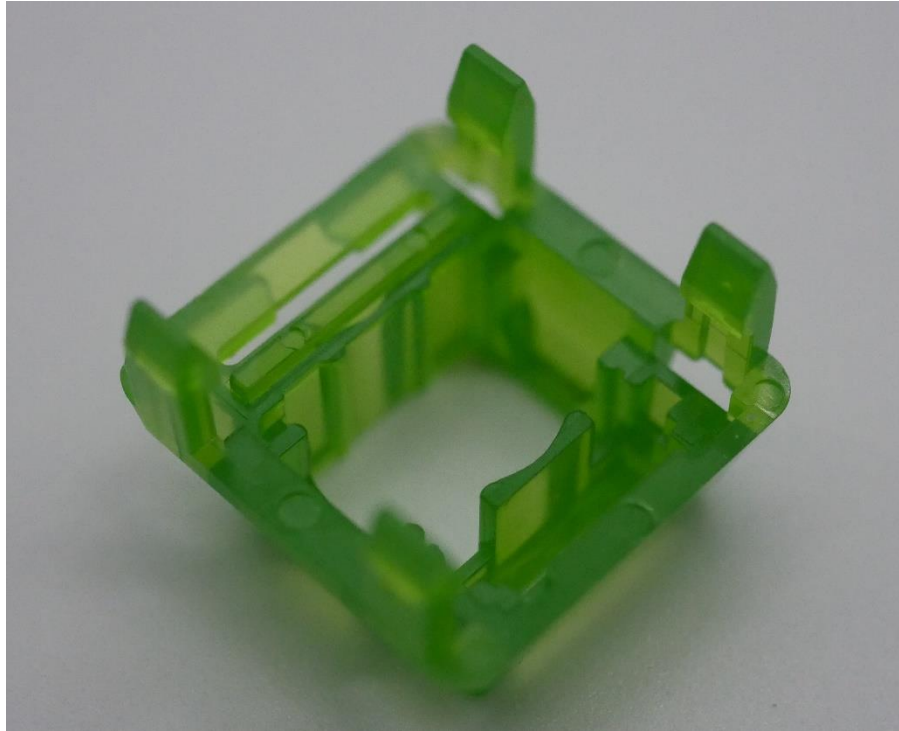


Figure 13: Kailh Christmas Tree top housing internal details and mold ejector marks.

Moving next to the stems of these switches, I'm yet again met with a surprising utter lack of identifiable features to them by way of mold markings. The longer than average red dustproof stems appear to be completely free of mold markings anywhere that they would traditionally be held *and* are also free of ejector mold circles on the front or back plate of the stem. Even with this lack of unique details, though, these stems stand out rather strangely amongst releases of the past year or so, as they feature no tapered slider rails nor tapered center mast. Both of these points in the stem end in abrupt, 90 degree cut offs in a fashion much more similar to that of "older" modern switches from the 2015-2017 era of production. An additional point worth noting here is that these stems most definitely come factory lubed, and with a gracious amount at that, based purely on the image below in which the factory lubricant can be seen coating the entirety of the slider rails on the switch.



Figure 12: Kailh Christmas Tree stem showing stock factory lubrication and non-tapered slider rail.

Coming next to the truly most interesting physical design feature of these switches, we arrive at the “tower springs” as they are called by Kailh’s social media team. Not to be confused with the multi-stage springs which have come to dominate releases by Tecsee over the past year or so, the gold-plated tower springs of Kailh are subtly conical in shape and have a wider bottom-coil diameter than that of the top finishing coils in addition to being longer than average in overall length. Interestingly, after having opened many switches in both batches of Christmas Tree and Santa Hat switches which I received, it would appear the springs are always aligned such that the larger diameter section sits in the bottom housing with the skinnier side sitting towards the top of the switch. Attempting to flip this spring into an upside-down fashion is also certainly possible, though there is a significantly more tighter tolerance between the bottom housing center mast and the diameter of the smaller end of the tower springs. Additionally, it’s worth noting that the uniform orientation of these truly ‘polar’ springs is something that was claimed previously by TheKeyCompany to be impossible to manage in a manufacturing setting in their rationale for why the C3 Dragonfruit switches were changed from progressive-linear switches in design to that of tactiles. (This is also completely not addressing the fact that multi-staged springs are neither polar in appearance nor push feeling as has been confirmed by several sources in the community after this announcement.)

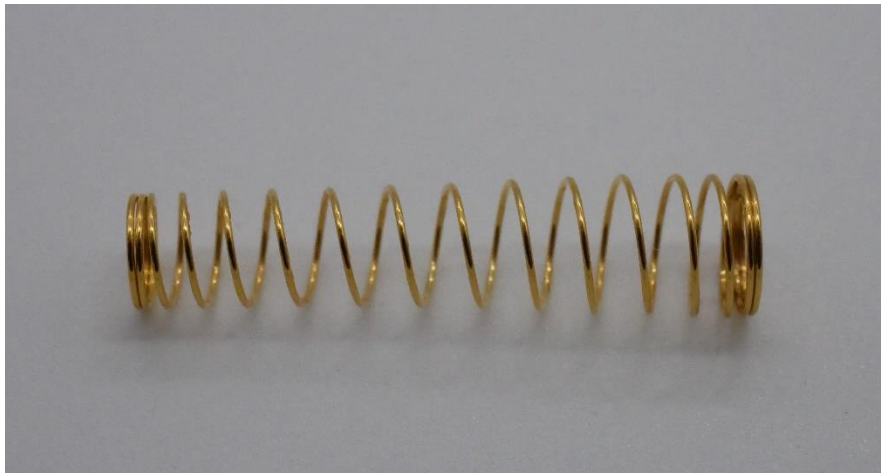


Figure 14: Kailh Christmas Tree 'tower spring' showing slightly increasing thread diameter from left to right along the length of the spring.

Finally arriving to the bottom housings of these switches, I am finally met with the first and only unique, identifiable mold mark out of any of the Christmas Tree switch components. Coming in the form of a sideways, single letter mold marking on the bottom right-hand side of the underside of the bottom housing, this feature sits near a very wide-open LED slot region, below the PCB mount pins, and way below that of the circular indentations around the leaf pins of the switch. Internally, these bottom housings are rather plain and only effectively feature a slight edge around the outside of the central hole and a pair of thin, wide, and rectangular dampening pads at the bottom of the slider rail region to ostensibly dampen the bottom out feeling of the stems.

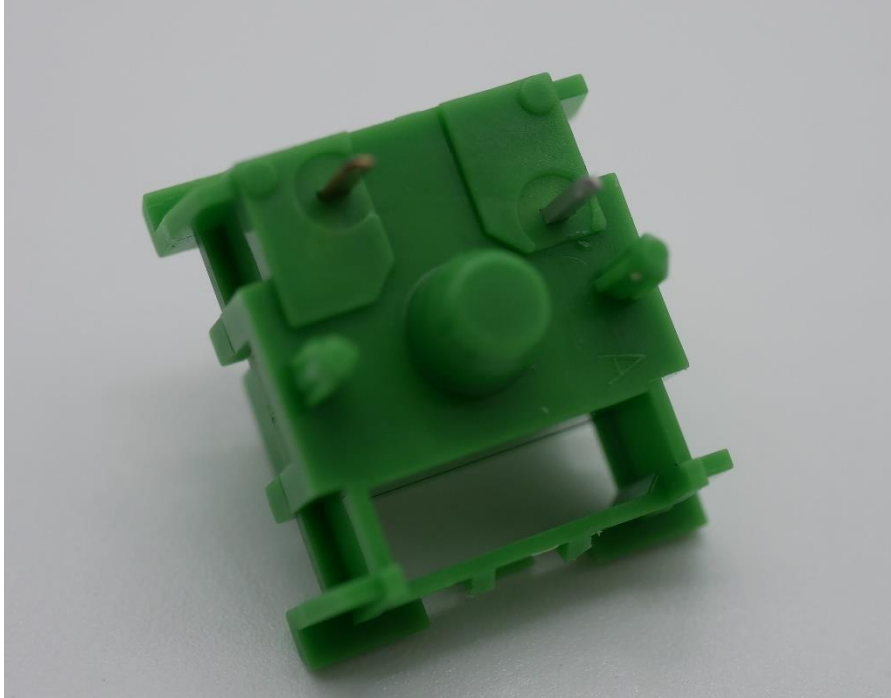


Figure 16: Kailh Christmas Tree bottom housing external design showing faint, single letter mold marking and PCB mount pins.

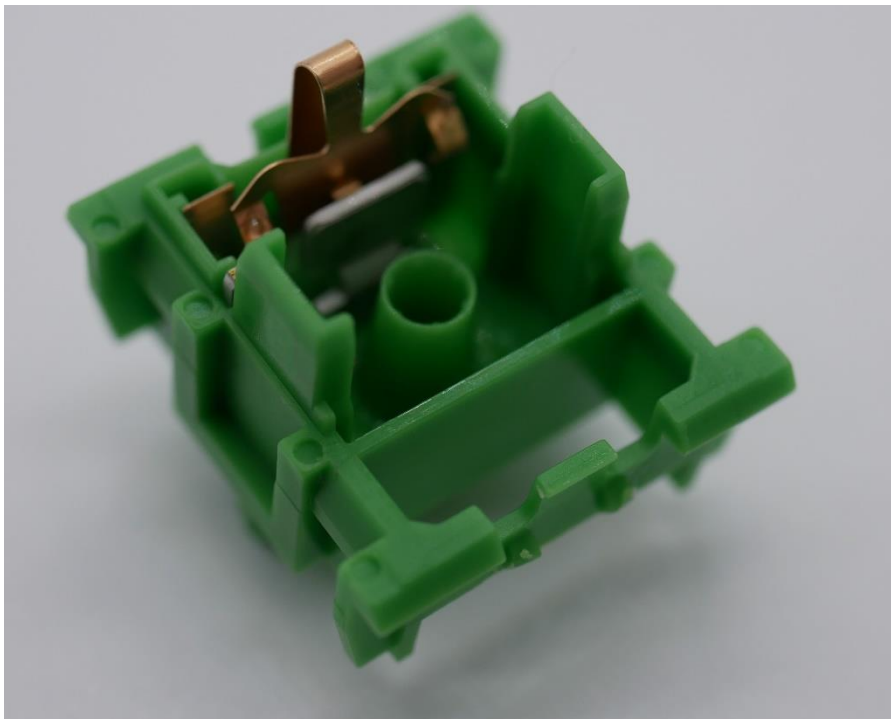


Figure 15: Kailh Christmas Tree bottom housing internal design showing mold ejector marks and faint ribbing inside of the central hole.

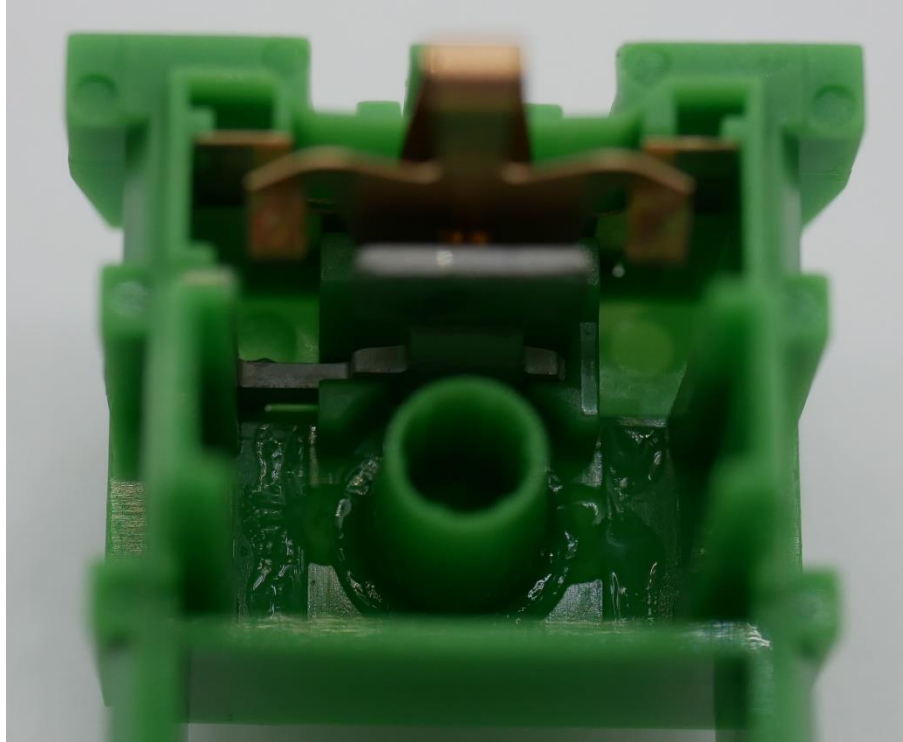


Figure 17: Close-up of the Kailh Christmas Tree bottom housing internals showing factory lube application and padded regions at the bottom of the slider rails.

Push Feel

In their entirety, the Kailh Christmas Trees very much deliver on the most prevalent point in linear switches in their smoothness. While many people will have initially looked at the amount of factory lubrication on the stems a couple images back and assumed these to feel gummy or with variable amounts of lube throughout the stroke, they would be fairly wrong as these switches feel consistently smooth throughout not only the entirety of the stroke but also across the majority of the batch that I received. Of the switches which didn't feel quite in line with the rest of them, which constituted a very small 10% of the batch give or take, these simply felt slightly more lubed than that of the rest of the Christmas Tree switches. Not wanting to be completely dismissive of those aforementioned overlubing fears, though, these switches definitely *feel* more heavily lubed than many releases out there today, but not to an extent such that it detracts from the overall performance of the switch. Whereas many major and minor switch manufacturing companies which cater to the enthusiast side of the community are starting to dial back lube applications a slight bit in order to allow for post-purchase modification without extra amounts of effort by consumers, the Christmas Trees were very deliberately lubed to be used immediately out of the box and without any consideration for the consumer modification end of the hobby.

In addition to the factory lubing on these switches, the housing collisions at both topping out and bottoming out are also rather dampened and firm as well. While by no means dampened nor squishy in the same vein as truly silent linear stems with their rubbery dampening pads, I suspect that the heavy lube application does some leg work in dampening and muting the housing collisions at either end of the switch. Even though there is some more variation in the housing collision feeling across the batch of switches as compared to the relatively thin margin of variation in the overall smoothness of the switches, the batch is fairly well balance in this regard. Making a completely qualitative judgement call on this one sans information, the housing collisions of this switch feel closer to that of nylon in feeling than that of

polycarbonate, even though I suspect (without evidence) that these are polycarbonate over nylon housings.

Finally reaching to the outwardly striking novel spring design of the Christmas Tree switches, the overall stock performance is just a touch underwhelming relative to expectations. While these switches definitely do feel slightly progressive as you reach the 70g. bottoming out of the Christmas Trees' stroke, at faster activation speeds the subtlety of this ramping-up force is hardly noticeable. The return is seemingly equally evenly dispersed and doesn't quite have the implied 'punch' that would be expected from the return of progressive springs. That being said, though, upon flipping the springs of these switches into the 'upside down' configuration with the wider end over top of the smaller end of the spring, the progressive nature of these springs truly takes on an entirely new feeling. In this upside-down configuration, the real start of the show is the significantly more strong and firm upstroke which results in a surprisingly rapid return on the upstroke of the switch. That is not to say that the downstroke is unaffected, either, as it starts with a much greater initiation force and bottoms out much more softly with the spring in this flipped setting. Regardless of a preference taken by me personally in either direction, the simple fact that a basic reorientation of the springs can produce such a wildly different feeling stroke in a linear switch is something that I've not only not seen to date but am absolutely astonished by. These are, to the best of my knowledge, the first truly polar feeling springs in modern, MX-style mechanical keyboard switches.

Sound

Very much falling in line with the aforementioned 'Push Feel' section notes, the Kailh Christmas Tree switches are overall rather quiet linear switches with muted, firm, and fairly solid sounding housing collisions on either end. While there is a tad bit more variation with respect to the topping out volume across the entirety of my batch received, by and large all of the switches fall within an acceptable range of variation. I would anticipate that these could all easily be used in the same build without much thought for modification or targeted orientation in the board by the user to 'equalize' the sound variations among them. In the flipped-spring configuration of these switches, surprisingly the topping out is slightly more dampened and muted, which rides a bit against the intuition I had had for this modification prior to trying it out for myself.

Wobble

Historically, Kailh as a manufacturer has always somewhat lagged behind its large and small competitors with respect to the fine tuning of its stem wobble. While I could easily step all the way back to the LongHua switches released in the 2014-2016 era in comparison to their contemporary competitive releases at the time in order to highlight these differences, there's really no need as the variation between Kailh and other companies is still rather evident today. Do not get me wrong here, these switches have only a minor amount of N/S stem wobble and a slightly lesser amount of wobble in the E/W direction, but it just doesn't quite stack up broadly towards the other switches out there today. In a vacuum though, I would suspect that these only have a minor chance of bothering most users in a fully built configuration.

Measurements

<i>Kailh Christmas Tree Measurements</i>			
Component		Denotation	mm.
Stem	Front/Back Plate Length	A	7.19
	Stem Width	B	5.55
	Stem Length with Rails	C	8.57
	Rail Width	D	2.00
	Center Pole Width	E	1.86
	Rail Height	F	5.15
	Total Stem Height	G	12.94
Bottom Housing	Diagonal Between Rails	L	9.57
	Interior Length Across	M	9.39
	Rail Width	N	2.67
	Center Hole Diameter	O	2.28
Top Housing	Horizontal Stem Gap	X	7.74
	Vertical Stem Gap	Y	6.01
Methods	Number of Switches Used		3
	Replication Per Measurement		3

Break In

<i>Kailh Christmas - Break In Testing</i>			
Metric	Activations		
	17,000	34,000	51,000
Push Feel (Overall)	+	+	+
Smoothness	+	+	++
Ping (Spring/Leaf)	-	-	-
Wobble (Overall)	-	-	-
Stem Wobble	-	-	-
Top Housing Wobble	-	-	-
Sound (Overall)	-	-	-
Scratchiness	-	-	-
Ping (Spring/Leaf)	-	-	-

Color Scale			
Improvement	+	++	+++
Deterioration	-	--	---
Null Change	-	-	-

Break In Notes:

In an overall statement about the break in notes of these switches and without making any one-to-one comparisons between them yet, this was very much an interesting case study in just how much heavy lubricant applications migrate in switches under fairly finite use times and how the feeling and sound of switches evolves over time as a result of this.

17,000 Actuations

- Much like was noted in the first break-in sheet in the Holy Panda X switch review, it does appear that the stem wobble of the Christmas Tree switches, and particularly that in the N/S direction does tend to loosen up and wobble more after 17,000 actuations.
- Interestingly, the switches become slightly more smooth, but not quite in the way that one would think. Whereas the heavy stock lube application has a bit of a heavy-handed feeling to it, the breaking in out to 17,000 actuations helps minorly disperse the lube in the slider rails a bit to give the Christmas Trees an equally smooth but not quite so heavy feeling to them.

34,000 Actuations

- At 34,000 actuations, we begin to actually see a little more of the true ‘character’ of the Kailh Christmas Tree switches come through a bit. While the same notes involving stem wobble and smoothness apply here, there is some very subtle but still noticeable uptick in audible presence and feeling of the springs in the switches.
- Given the fact that some of the subtle-but-noticeable harshness in the spring ping noted here in this section wasn’t nearly as present in the batch that was taken out to 51,000 actuations, I am inclined to think that this may be either a transitory property of the springs under intermediate levels of break-in or more than likely a small batch-based error which wouldn’t be replicated with a different set of switches.

51,000 Actuations

- At 51,000 actuations, the true ‘character’ of the Kailh Christmas Tree switches really begins to stand out compared to their stock form. With the lubrication now thoroughly dispersed over the slider rails of the switch, these still feel like stock, as delivered smooth switches but with a feeling much more closely aligned with that of a well-done, highly skilled lubrication job rather than a more heavy-handed robotic one.
- A subtle detail which is not well captured in the chart above but is worth noting here is that the overall volume of the switches definitely does pick up with each series of actuations at the lube more evenly distributes. However, this is neither an unwelcomed nor bad development at all, as shifting in the lubrication would almost certainly lead to a lack of dampening in places it had accumulated prior to activation. In a really roundabout way, this almost feels like the evolution notes talked about by sommeliers when testing out fancy wines.

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 switches to the Christmas Trees side by side.



Figure 18: Switches for comparison. (L-R, Top-Bot: Gateron Oil King, Invokeys Matcha Latte, Ajazz x Huano Peach, Durock POM, Kailh Box Speed Ultimate, KTT Strawberry)

Gateron Oil King

- In terms of overall volume, the Gateron Oil King switches are louder than that of the Kailh Christmas Tree switches. In addition, they are also ever so slightly higher pitched as well, though this pitch difference levels out over time when comparing the Oil Kings to more broken in Christmas Trees, regardless of how unfair that comparison is.
- While the Kailh Christmas Trees are maybe a tiny bit better in the E/W stem wobble direction, the Oil Kings have much less noticeable stem wobble in the N/S direction by comparison.
- Even though both switches optically appear to be rather heavily lubed switches upon looking at their stems, in stock form the Oil Kings have a much lighter feeling to them and carry more of the switch character than the lube character.

Invokeys Matcha Latte

- While the bottoming out of the Invokeys Matcha Lattes are ever so slightly sharp given that they bottom out on the stem pole whereas the Christmas Trees seemingly don't, they still have a similarity in the thickness and weight at their bottoming out that is shared by the Christmas Trees.
- In terms of stem wobble, the Matcha Latte switches completely beat out that of the Christmas Tree switches without much room for comparison in either direction.
- Going again to the switch versus lubricant character, the Matcha Lattes feel ever so slightly lighter lubed than that of the stock Kailh Christmas Tree switches.

Ajazz x Huano Peach

- While the Ajazz x Huano Peach and Kailh Christmas Tree switches have pretty comparable amounts of stem wobble in the N/S direction, the overall lack of variability across the batch of switches in the Christmas Trees makes them much more appealing on this metric than that Peach switches.
- There is a fairly subtle scratch throughout the stroke in the Ajazz x Huano Peach switches which simply isn't present in the stock Kailh Christmas Tree switches and likely wouldn't be present until well after the 50,000-actuation mark.
- In terms of overall volume, the Peach switches are louder than that of the Christmas Tree switches and especially at the point of topping out.

KTT Strawberry

- Of all of the switches on this list, the Christmas Tree and Strawberry switches are the most comparable in terms of overall volume and housing collision sound.
- In both the N/S and E/W directions, the KTT Strawberry switches absolutely blow away that of the Kailh Christmas switches.
- Some of the very subtle scratch feeling and sound that the KTT Strawberries bring in their stock form is very much in line with the feeling that I was trying to note in the Christmas Tree switches which were broken in in the break-in sections above.

Kailh Box Speed Ultimate

- The Kailh Christmas Tree switches are better than the Box Speed Ultimates in both the N/S and E/W directions regarding their stem wobble.
- While both switches are smooth in their stock form, the Box Speed Ultimates are much more thinly smooth and have a more 'fast and loose' feeling than that of the comparatively more heavier-lubed, thicker feeling Christmas Trees.
- The bottoming out of the Kailh Box Speed Ultimate switches is significantly more thin and ever so slightly more plasticky feeling than that of the Christmas Tree switches when comparing them side by side.

Durock POM Linear

- While these two switches are also fairly comparable in terms of overall sound in very similar fashion as to that which was already noted in the KTT Strawberry comparison, the topping out of the POM linear switches are ever so slightly more pointed than that of the Christmas Trees.
- In terms of stem wobble in both N/S and E/W directions, there's almost no comparison here as the Durock POM switches absolutely blow away the Kailh Christmas Tree switches.
- Even though these switches are both quite smooth in their stock form, there is a subtle scratch feeling that is present in the POM linear switches that simply isn't present in that of the heavily lubed Christmas Tree switches.

Scores and Statistics

Note – These scores are not necessarily completely indicative of the nuanced review above. If you’ve skipped straight to this section, I can only recommend that you at least glance at the other sections above in order to get a stronger idea of my opinion about these switches.

Kailh Christmas Tree		
Switch Type: <i>Linear</i>		<i>Kailh</i>
30	/35	Push Feel
18	/25	Wobble
8	/10	Sound
12	/20	Context
9	/10	Other
77	/100	Total

Push Feel

Even though the Kailh Christmas Tree switches are definitely on the heavier side at 70g of bottoming out force and on the more heavily factory lubed side as well, they provide a great stock experience with cross-batch consistency smoothness. These also boast a pair of firm, thick, and muted housing collisions that many people in the community would seek out.

Wobble

While the same cross-batch consistency as noted in the ‘Push Feel’ notes holds true here for the stem wobble as well, Kailh still falls a little bit short of expectations here for 2022. Probably noticeable amounts of N/S stem wobble with a slightly lesser but still present amount in the E/W direction and no top housing give even after opening a few times.

Sound

Given the relatively heavily lubed nature of these switches, these things are quiet, muted, and very substantial sounding at all activation speeds. While there is some subtle spring ping in some switches, the topping out sound does ever so slightly thin out at higher activation speeds, these are an excellent example of a “deep” sounding switch.

Context

For all the performance points these switches nail so well, Kailh and Chosfox seemingly forgot to market these at all in their brief run in 2022. Perhaps due to them having a slightly anachronistic theme for a February groupbuy, the pricing of these switches were fairly strong for the benefits they bring, but their availability and public appeal appears marginal at best now.

Other

While the price of these switches at \$0.64 per switch was seemingly high, the brand new ‘tower spring’ design of these switches is not only novel but allows for a completely different feeling upon inverting, making for so far one of the most subtly unique and unrecognized switch components and design features to be released in 2022 thus far.

Statistics

Average Score			Kailh Christmas Tree		
26.5	/35	Push Feel	30	/35	Push Feel
16.7	/25	Wobble	18	/25	Wobble
5.6	/10	Sound	8	/10	Sound
12.7	/20	Context	12	/20	Context
6.0	/10	Other	9	/10	Other
67.5	/100	Total	77	/100	Total
X-mas Tree Overall Rank			T-#18/155 (77/100)		
X-mas Tree 'Hard' Rank			T-#15/155 (56/70)		
X-mas Tree 'Soft' Rank			T-#38/155 (21/30)		

Final Conclusions

Completely disregarding the forced festive theme and anachronistic references to Christmas things in March entirely driven by the fact that I just recently got ‘Rudolph the Rednose Reindeer’ stuck back in my head again, this review really came about via a lucky coincidence regardless of what two-hours-ago me wrote above at the start of this review. After having both the Christmas Trees and Santa Hats sent to me a few weeks ago by Kailh, I had kind of brushed them off as weirdly themed switches and left them sitting over in the ‘maybe doing something with’ pile all but forgetting their ‘tower spring’ designs which they had mentioned. Pulling these switches out of the pile while reciting all of the reindeer names over and over to myself like some OCD-laden elf, I ended up being pleasantly surprised with their overall stock performance. These switches are quite well smooth both across the stroke and across the batch, and break in quite well over time with solid, firm feeling housing collisions and only the most minor of detracting points. However, all of those positive points aside, the singular detail which really drove my fervor in writing this review was that of the tower springs that I had forgotten about.

Do not get me wrong here, the tower springs in their stock form are not the end all nor be all of spring technology in the MX-style switch footprint. In fact, in their stock, as delivered form they are hardly anything all that crazy and simply come across as normally weighted progressive springs. *But* the fact that you can not only swap the springs upside down in the housings to provide a different feeling switch, but that it is also *drastically* different performing is something that is honestly both astounding and needs to be talked about more. While multi-stage springs have always been questionably polar in

their orientation-based feeling, with some users swearing they can tell the difference between ‘right side up’ and ‘upside down’ multistage springs, there is no doubt in my mind that these new tower springs are the first unquestionably progressive springs with a polarity to them. I am simply left to wonder how Kailh and Chosfox completely did not market this point harder nor even remotely attempt to pitch this feature to the community at large in their short groupbuy window, as I’d imagine many people would completely overlook the oddly timed festive theme in order to try this feature out. I can only hope that we see more tower spring-filled releases from Kailh in the future and that these don’t end up on the island of misfit switches somewhere else, as these truly are very exciting springs for basic enthusiasts and hardcore modifiers alike.

Sponsors/Affiliates

Mechbox.co.uk

- A wonderful UK based operation which sells singles to switches that I’ve used above in my comparisons for collectors and the curious alike. Matt has gone out of his way to help me build out big parts of my collection, and buying something using this link supports him as well as my content!

KeebCats UK

- A switch peripheral company based out of the UK which sells everything switch adjacent you could ask for, they’ve been a huge help recently with my film and lube supply for personal builds, and they want to extend that help to you too. **Use code ‘GOAT’ for 10% off your order when you check them out!**

Proto[Typist] Keyboards

- An all-things keyboard vendor based out of the UK, proto[Typist] is a regular stocker of everything from switches to the latest keyboard and keycap groupbuys. While I’ve bought things from the many times in the past, they also are a sponsor of my work and allow me to get some of the great switches I write about!

MKUltra Corporation

- We may have stolen a few government secrets to get this one together. MKUltra is a US vendor that truly fills all the gaps other vendors simply don’t offer and is continuing to expand their switch and switch related peripherals by the day. **Use code ‘GOAT’ for 5% off your order when you check them out!**

Divinikey

- Not only do they stock just about everything related to keyboards and switches, but they’re super friendly and ship out pretty quick too. Divinikey has been a huge help to me and my builds over the last year or two of doing reviews and they’ll definitely hook you up. **Use code ‘GOAT’ for 5% off your order when you check them out!**

ZealPC

- Do they really need any introduction? Zeal and crew kicked off the custom switch scene many years ago with their iconic Zealios switches and the story of switches today couldn’t be told without them. **Use code ‘GOAT’ (or click the link above) for 5% off your order when you check them out!**

Further Reading

Chosfox & Kailh Clione Limacina Switch Sales Page Archive

Link: <https://web.archive.org/web/20220103101536/https://chosfox.com/products/clione-limacina-switch-pre-order>

Chosfox & Kailh Box Speed Ultimate Switch Sales Page

Link: <https://chosfox.com/products/box-speed-ultimate-switch>

Wayback: <https://web.archive.org/web/20220312075320/https://chosfox.com/products/box-speed-ultimate-switch>

Chosfox's Kailh MX Midnight Switches Sales Page

Link: <https://chosfox.com/products/kailh-mx-silent-switches?variant=41683439714498>

Wayback: <https://web.archive.org/web/20220312160452/https://chosfox.com/products/kailh-mx-silent-switches?variant=41683439714498>

Novelkeys' Kailh Box Mute Jade Sales Page

Link: <https://novelkeys.com/products/kailh-box-switches>

Wayback: <https://web.archive.org/web/20220209012817/https://novelkeys.com/products/kailh-box-switches>

Chosfox's Kailh Box V2 Switch Sales Page

Link: <https://chosfox.com/products/chosfox-kailh-box-switches-v2>

Wayback: <https://web.archive.org/web/20220312160418/https://chosfox.com/products/chosfox-kailh-box-switches-v2>

Chosfox & Kailh Santa Series Switch Sales Page Archive

Link: <https://web.archive.org/web/20220121070416/https://chosfox.com/products/chosfox-kailh-santa-series-switch>

Chosfox's Kailh Santa Series Switch Groupbuy Mechmarket Announcement

Link:

https://www.reddit.com/r/mechmarket/comments/s94tne/gb_switch_chosfox_kailh_santa_series_switch/

Wayback:

https://web.archive.org/web/20220312160335/https://www.reddit.com/r/mechmarket/comments/s94tne/gb_switch_chosfox_kailh_santa_series_switch/