The Pandaverse
-ThereminGoat, 09/29/2020

Well, without further delay I'm glad to finally get back to posting a full and proper article of some fashion. Before I start, though, I want to apologize for having taken this long to have posted something again on the main website, even though it was mostly out of my hands. Aside moving, starting a new job, and a bit more personal stuff going on, I've been struggling a bit recently with 'writer's block' if you will. While it's not specifically anyone's fault within the community, I've found that as I've begun to see more and more success lately that I've been ramping up the pressure more on myself to produce higher and higher quality content. This, in turn, has led to *very many* rewrites of articles I wouldn't otherwise have had an issue with in the past, and has contributed in large part to this delay. Hopefully with the publishing of this (long overdue) update to one of my previous articles, the juices will begin flowing again and I will get back to pumping out content on a normal routine. I just hope that you all know that this pressure is simply to produce the quality of content that you all deserve for supporting me this far along.

Climbing off of my personal soapbox, this article that I am 'redoing' now is actually a call back to one of my first documents I produced, which was an Excel sheet detailing all of the different Panda switches that had been known up until that point. Obviously, in those days I was still simply uploading to a Google Drive and didn't have a website nor PDF style to try and cater to. To continue with the updating of this document for the future, as well as update it to where the Pandaverse is now, this is my complete redoing of the article with new writing, new details, new photographs, and hopefully a much more sustainable format. Each of the Panda switches below will feature pictures from my personal collection (so long as I have them) as well as brief telling of their history and short links to pertinent readings elsewhere.

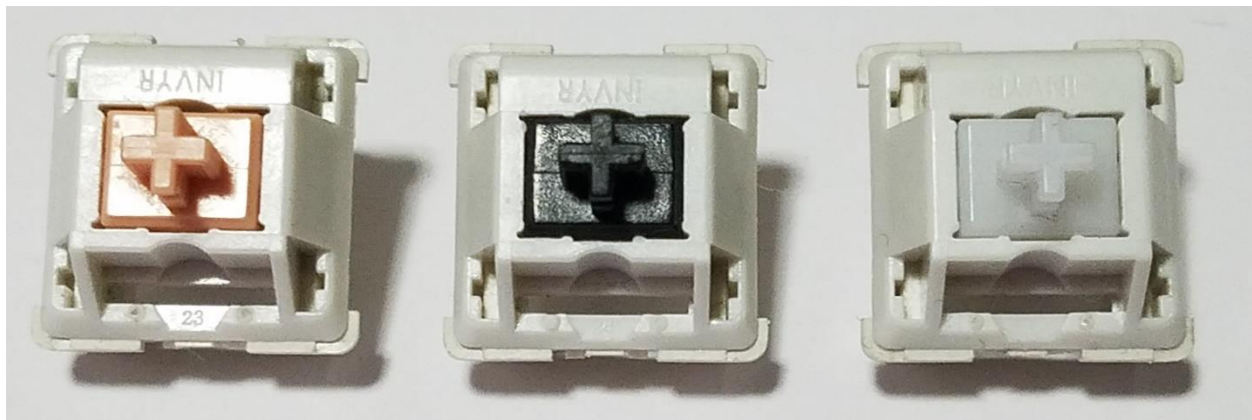## The Pandaverse

Invyr Panda V1

Figure 1: Invyr Panda V1s with both Holy Panda variants.

Releasing publicly in late October of 2016, these Invyr Pandas are the first to kick off what has now become one of the most drama-filled and convoluted family trees of switches. Starting as a collaboration between two designers, Invyr (Zisb) and Mech27, the aim of these switches were to "create the smoothest possible factory linear switch." Anyone that was active in the community at this time, though, will tell you that this simply didn't end up being reality. Being universally panned as 'not great' linear switches, these faded into near obscurity until the incredibly famous 'Holy Panda' was discovered.

Discovered and named by Quakemz of TopClack fame, these frankenswitches were formed by taking the stems of either a Halo True or Halo Clear switch and placing them into the Invyr housing and using a spring of the users' desired weight. Pictured above you will see the original Invyr Panda V1 front and centered flanked on both sides by an original 'Holy Panda' and 'Clear Minded' Panda, which is my personal favorite name for Holy Pandas with clear stems.
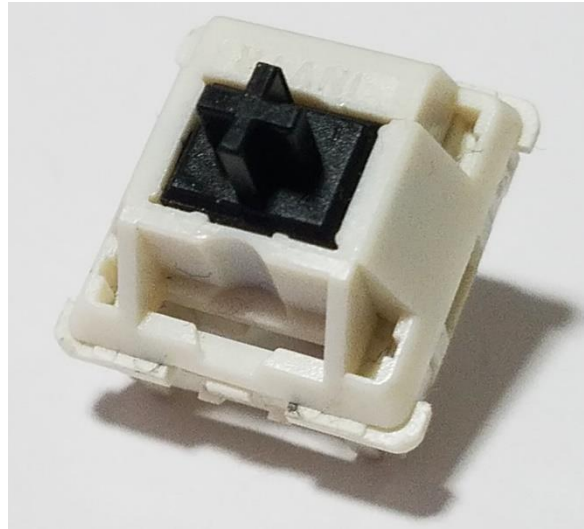
Invyr Panda V2

Figure 2: Invyr Panda V2 switch (Courtesy of Invyr/Zisb)

Riding the newfound wave of success and interest in Invyr Pandas after the community-wide acceptance of Holy Pandas, 27 and Invyr chose to try and go about a release of an 'Invyr Panda V2'. Originally partnering with 1UpKeyboards, and one of their owners u/skiwithpete, samples were made and shipped to 1Up, though ultimately rejected to mold issues. In order to try and improve upon the mold design issues with respect to stem wobble and top housing tolerances, the V2 switches were then going to become opaque, BSUN Brown tops with retooled Invyr Panda bottom housings and the original Invyr stems. In fact, the attempt at converting the otherwise unusable samples into 'Invyr V2' switches was successful and saw 1Up invest heavily into BSUN Brown switches as can be seen from their sales page today. However, at some point after this investment, the retooled bottom housing molds were either destroyed or damaged and the plan for these switches were scrapped altogether.

Thus, in the grand scheme of this situation, only a handful of Invyr V2 switches were ever made for the sample set and it is highly unlikely that this plan will ever be revisited again. I'd also like to give a big shout out to both 1Up as well as Invyr for having the conversations with me that not only allowed me to secure some of these remaining sample switches but also for explaining this convoluted history.
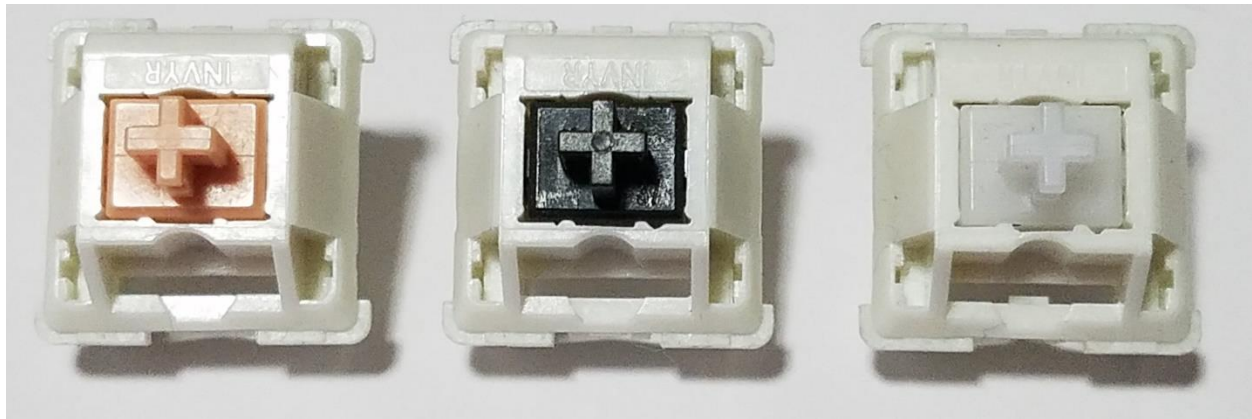
Invyr Panda V3

Figure 3: Invyr Panda V3s, otherwise known as 'Drop Pandas', with both Holy Panda variants.

Contrary to the mold destruction/damage comments in the previous paragraphs, at some point along the way in the production of either Invyr V1 or Invyr V2 switches, not all of the molds were destroyed. (In fact, to this day this is still a hotly contested and little understood topic.) The newest iteration of Invyr Panda switches is relatively recent compared to the first two iterations and aren't even in fact referred to by 'Invyr Panda V2s or V3s.' Referred to, instead, as 'Drop Pandas', these are Drop's attempt at cashing in on the "original Invyr molds" that they supposedly had bought from someone. According to conversations with Invyr, these switches feature a retooling compared to that of Invyr Panda V1s, though don't feature a different material nor stem. Starting their initial sale around Christmas of 2019, the first batches of these switches shipped around late January to early February of 2020 with future iterations being scattered throughout 2020 to current day.
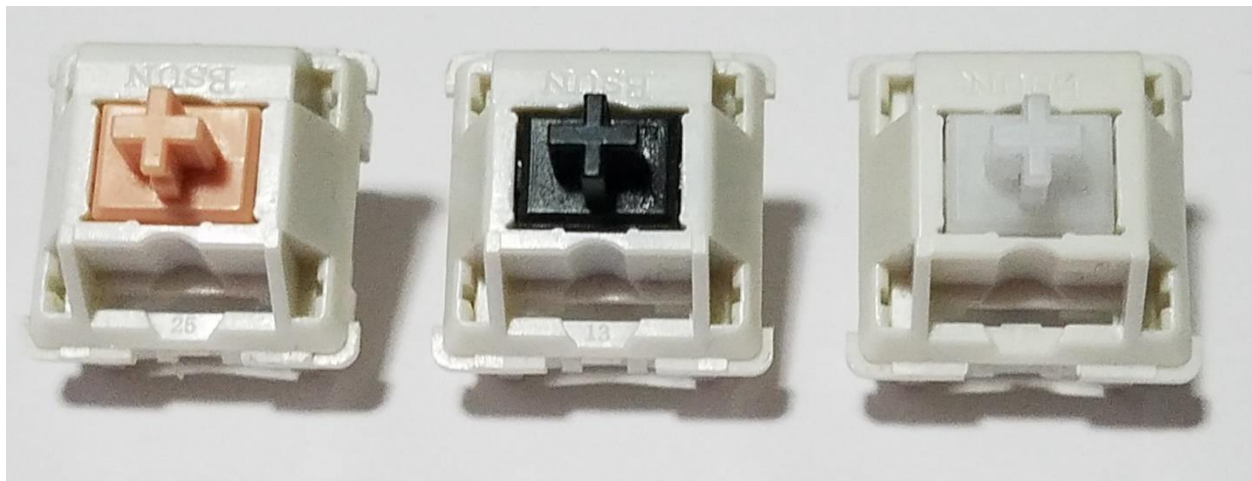
GSUS Pandas

Figure 4: GSUS Pandas with both Holy Panda variants.

In all transparency, while these switches are only one fragment of the maybe four entire feature-length articles I could write regarding Pandaverse drama, these are by far some of my favorite drama-heavy Pandas. With the initial Geekhack thread for these switches starting in December of 2018, these "new Panda" switches were aimed at being the first attempt to recreate the legendary Panda switch in order to topple the insane aftermarket demand for Holy Pandas, which had driven prices up to nearly $5

per switch. Taking help from neither Invyr nor 27, a user by the name of SuperVan set out to do this project on his own and even committed to buying MOQ amounts of switches *before having even run the groupbuy* because he had believed in them that much. This, along with an initial pricing of $1.00 per switch, set the release Geekhack thread (as well as the community) on fire for a few days until he ultimately decided to lower the price to $0.60 per switch.

Aside all of the drama surrounding these switches, these ended up becoming wildly successful Invyr Panda alternatives and helped kick off the 'Modern Panda Rush' which inspired the YOK line and broadened the outreach of the 'Holy Panda' name to an infinitely wider audience.
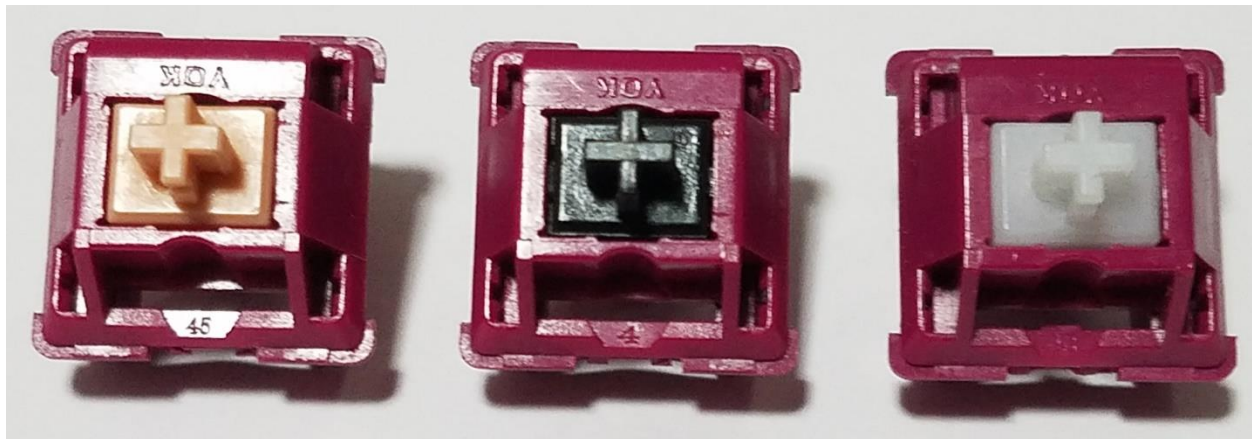
YOK Red Pandas

Figure 5: YOK Red Pandas with both Holy Panda variants.

Shortly after the drama filled groupbuy and positive reception of the GSUS Pandas, Mike and the crew at Novelkeys followed suit with their own 'Invyr Panda clone' in the form of YOK Red Pandas. Originally going on sale in mid-January 2019, these switches featured a new 'YOK' nameplate and were to be produced at an, at the time, unknown factory. While we now know that these were produced in the same factory as BSUN switches and original Invyr Pandas, the biggest pull for these clone switches came in the deep red housing color that would be much more suitable for build themes that white housings previously seen in GSUS and Invyr Pandas would not suit. Over their fairly long lifetime at Novelkeys, YOK Red Pandas were restocked a couple of times though as of the time of writing this update, the only western facing sources to buy these are small time vendors running sporadic, limited groupbuys.
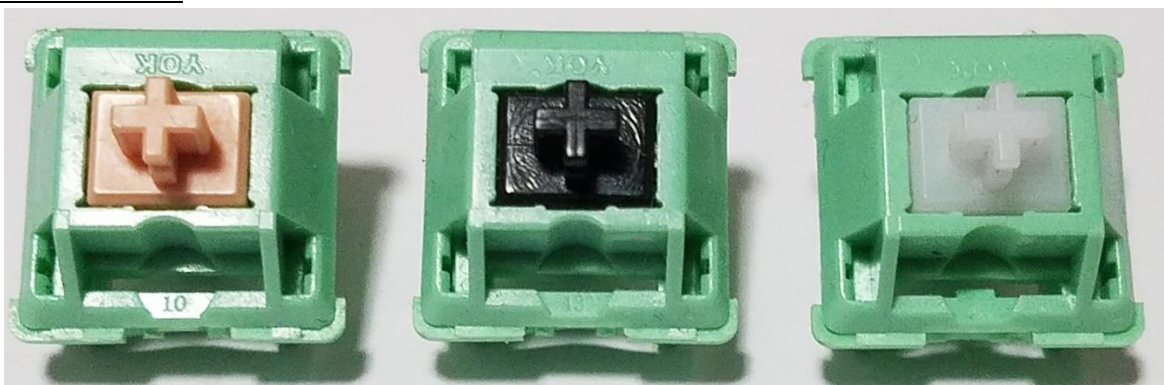
YOK Mint Pandas

Figure 6: YOK Mint Pandas with both Holy Panda variants.

Unremarkably different than the YOK Red Pandas that were released only a short time before this, Novelkeys doubled up on the frenzy for Panda switches with these mint green colored clones that were functionally identical to the red versions. These switches followed a rather similar trajectory in terms of sales on Novelkeys, and were even featured on the same sale page for a brief stint before their removal from the site. The only interesting piece of associated historical notes to these switches is that this was the point in which u/Winthea began to break into the scene a bit with her beautifully drawn switches themed to match their names. While she had done a few switch drawings prior to this point, this really kicked off her community excitement for these drawings, with myself being a big fan.
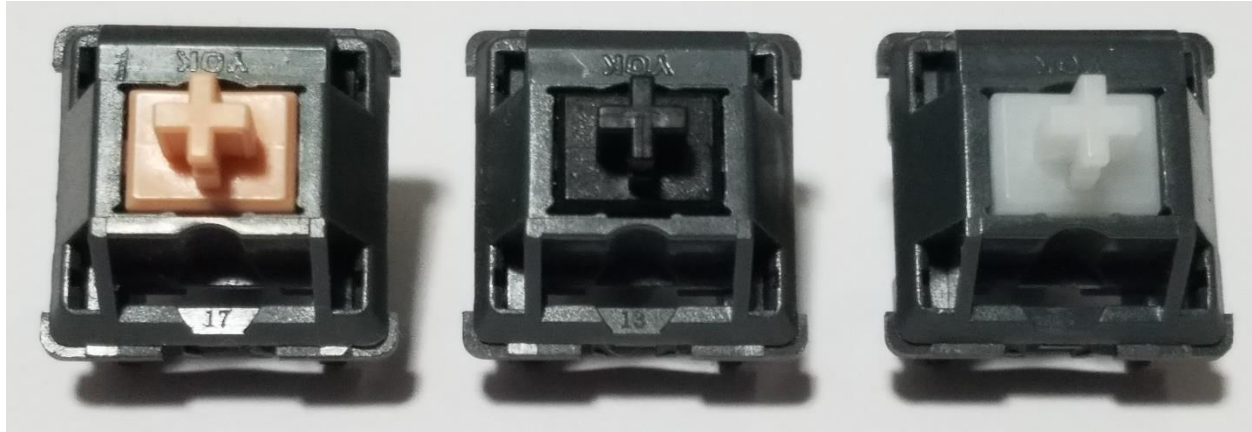
YOK Trash Pandas

Figure 7: YOK Trash Pandas with both Holy Panda variants.

Making their debut in March of 2019, the third YOK branded Panda 'clone' featured a dark grey housing in order to offer a 'more neutral' base color than the other YOK Pandas sold up to this point in time. Being sold only on Novelkeys, these switches stayed stocked until sometime in mid-2020 and, subjectively, had a much lesser interest surrounding them than the YOK Red and Mint Pandas sold before them. As well, these were the first Panda switches up to this point to be named for something other than either the nameplate or the color of the switch, though this is really their only defining characteristic amidst the rest of the Panda switches.
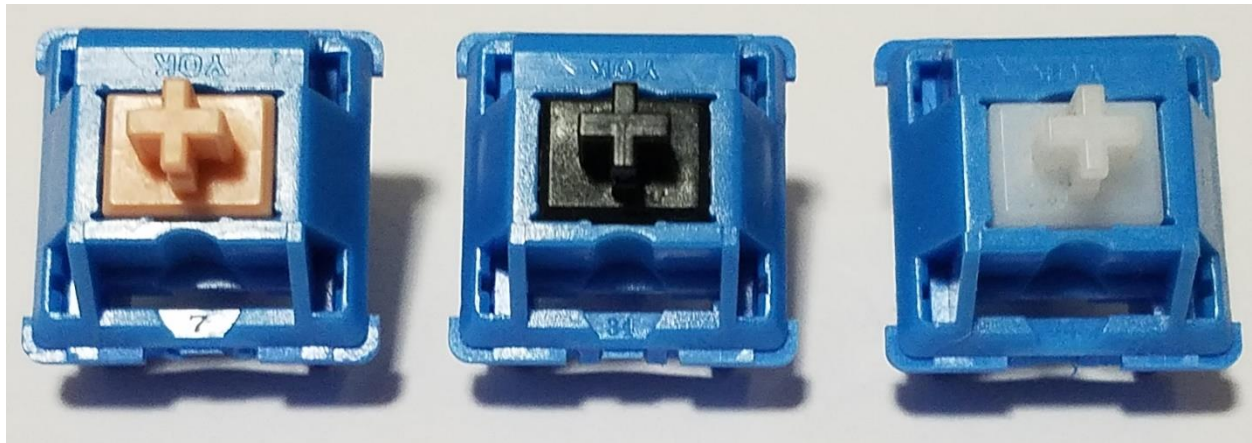
YOK Polar Pandas

Figure 8: YOK Polar Pandas with both Holy Panda variants.

Debuting as the fourth (and not technically final) YOK Panda switch to be made in the 'Modern Panda Era', these switches were announced on Reddit at the start of August, 2019. Selling for the same price as the other YOK Pandas up to this point, they went the exact same route of hanging around for a short while until ultimately fading off into the distance.
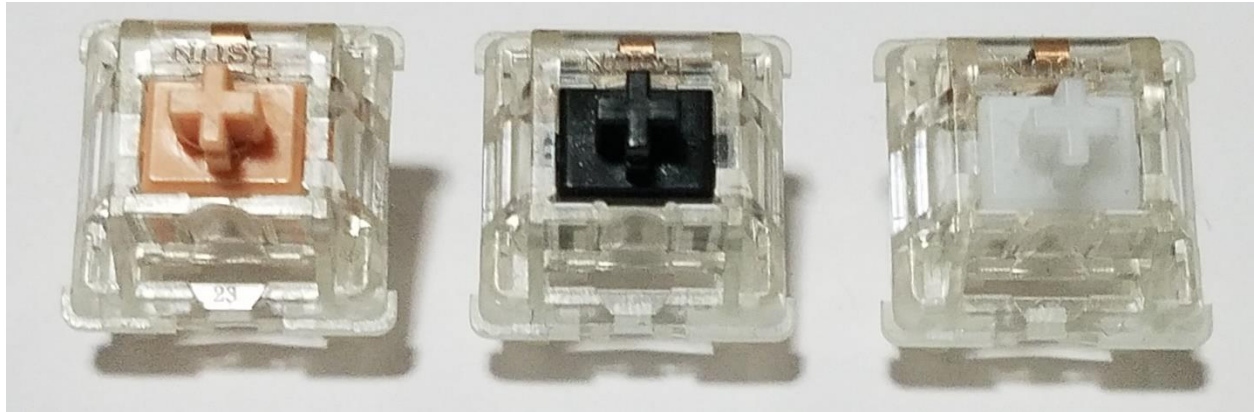
BSUN Clear Pandas

Figure 9: BSUN Clear Pandas with both Holy Panda variants.

Among all of the Panda switches in this exhaustive list, I know the least about these purely due to my severe (and in fact, almost nonexistent) proficiency in any Chinese dialect. Run exclusively in a private Chinese groupbuy, these clear-housing BSUN switches were aimed at being an extremely secretive and low key Panda clone switch. These have briefly made appearances in the west, though, in the form of a giveaway on Geekhack tied to another groupbuy by user oldcat. Even though these are known about in the west as a result of this giveaway as well as the first version of this article, no attempt has been made at re-running these switches in some fashion.
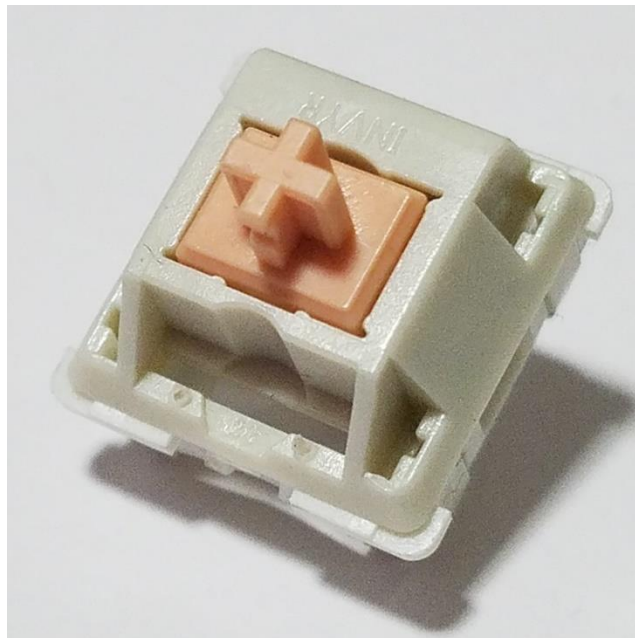
Massdrop x Invyr Holy Pandas

Figure 10: Massdrop x Invyr Holy Panda.

Being announced roughly around the start time of the GSUS Panda groupbuy in December of 2018, these switches were not only the first factory assembled Holy Panda switch to be sold to consumers, but also the first community-made frankenswitches to receive a factory-made release in their original format. The most interesting advertising note surrounding the initial release of these switches was in regards to Massdrop claiming that they had obtained "original Panda tooling", which as discussed above, has been rumored to be destroyed and/or damaged beyond usage long ago in the past. Pushing this controversy aside under the 'potentially conflated advertising' tent that Massdrop likes to camp in quite often, the release details took the community by storm given that the initial price point was lower than the cost of any Panda switch and Halo switch needed to make Holy Pandas at that time. Ultimately, this price was only an initial release price, with future iterations jumping up to roughly equivalent in cost to the two switches required in making Holy Pandas. As well worth noting, this decreased initial pricing was believed by many in the community to be an attempt by Massdrop to combat SuperVan's GSUS Panda groupbuy which would be competitive to their monopoly on Panda switches.

Continuing in the drama laden fashion of Massdrop, future iterations of this switch featured even more drama with a release in September of 2020 claiming to have housing made of "100% POM" as opposed to the normal Polycarbonate top housings / Nylon bottom housings of previous releases. Experiments conducted by the community at large quickly determined this to be a lie and caused an uproar that coincided nearly perfectly with the Glorious Panda switches, discussed below.

YOK Purple Trash Pandas

Figure 11: YOK Purple Trash Panda.

While certainly not the most convoluted in terms of background drama or mold technicalities, the YOK Purple Trash Pandas certainly are among the most confusing with respect to naming scheme. This latest release of YOK switches to date are not truly "Pandas" in the original sense of the word, featuring a purple tactile stem in YOK Trash Panda housings. This ultimately makes this technically the first tactile Panda switch, making it quite difficult for me to include within this list. As can now be seen from the release of Novelkeys Blueberry switches, which feature a unique, blue tactile stem in a Novelkeys Cream housing, these switches appear to have been created to push these tactile purple stems that Kailh and/or

Novelkeys decided not to sell alone. Not being all that well received by the community at large, these did not stay on Novelkeys long and slowly faded off of the website entirely sometime in mid to late 2020.
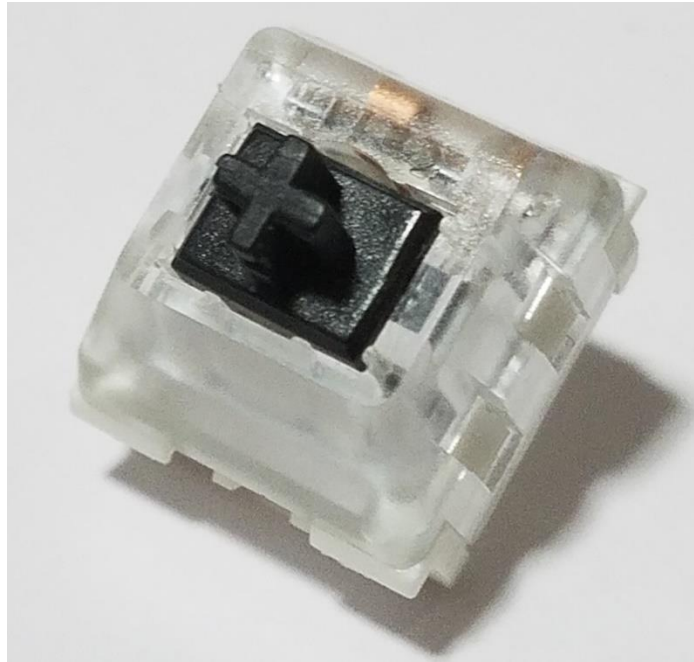
Invyr Unholy Pandas (Frankenswitch)

Figure 12: Invyr Unholy Panda switch.

While not commercially released nor sold at any point along their history, these frankenswitches have long served as the (in)famous remains of the Holy Panda switches. Prior to the all-in-one Holy Panda sales via the way of Massdrop x Invyr Holy Pandas, the leftover Halo housings and Invyr Panda stems were recombined to form what are referred to as "Unholy Pandas". While almost certainly never used in normal builds, or at least any that I am aware of, these are often seen being sold at $0.20 per switch or less on mechmarket as a way to recoup costs in the making of original Holy Pandas.

YOK Unholy Pandas (Frankenswitch)

Figure 13: YOK Unholy Panda switch.

While not functionally any different, nor any better than Invyr Unholy Pandas, I draw the distinction between these two Unholy Pandas due to the fact that the YOK Panda stems were made from different molds than that of the original Invyr stems. Unlike their similarities in functionality, and in complete contrary to my points I made in the Invyr Unholy Pandas section, I was able to find a typing test of someone who made a build with YOK Unholy Pandas, which can be found below in further reading.
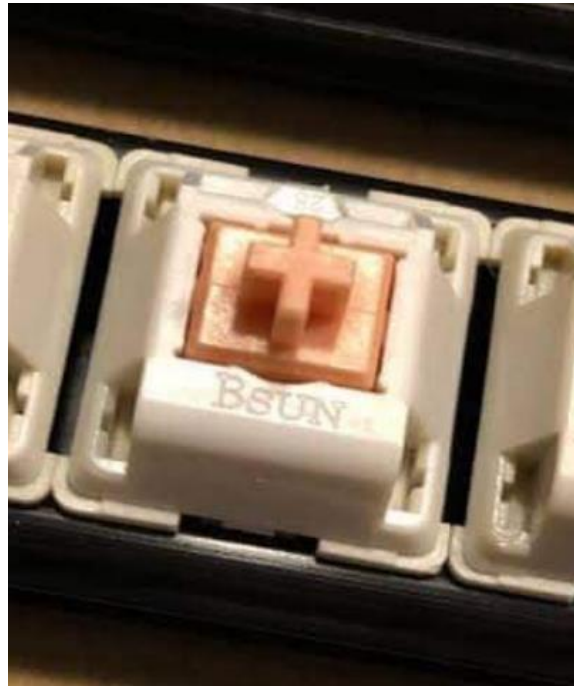
'3RMB' Holy Pandas

Figure 14: ZFrontier forum photo of supposed '3RMB' Holy Panda.

Of all the switches on this list, this is the one that I am missing and have not the slightest clue as to how to go about obtaining. Briefly before the drama surrounding Drop's claim of 100% POM Pandas as well as the Glorious Panda release, these '3RMB' fake Holy Panda switches were circulating through Chinese facing forums a fair bit. While very little is known about these switches, there were several sets of photos that rose to the surface showing differences in mold shapes and injection mold locations on the bottom housings as well as stems of these switches compared to authentic Holy Panda switches. As well, the switches featured 'BSUN' nameplates rather than 'INVYR' ones. The name '3RMB' comes from the cost of these switches, which due to being significantly lower than the normal cost of Holy Panda switches in the east began drawing the suspicion of the community at large.

<u>Glorious Pandas</u>

Figure 15: Glorious Panda switch.

This easily could be one of the longest entries on this list of Pandas due to the sheer volume of the drama, history, and interesting quirks related to this switch's brief history thus far along. Announced in July and run in August of 2020, these all-in-one tactile Pandas were originally sold under the name of 'Glorious Holy Pandas' though quickly changed after severe backlash from the community at large. While already only barely Pandas due to the housings supposedly being made with the same 'original Invyr' tooling that supposedly still exists, the backlash from the community started when it was discovered that these switches actually contain GPCGR's own proprietary tactile stem rather than the Halo True or Clear stems normally used to designate a Panda as 'Holy'.

Due to this being an abbreviated historical list, I highly recommend checking out Glorious Panda Switch Review as it covers the history and drama of these switches much more in depth, as the naming scheme was only a brief part of that.

The Extended Pandaverse

Originally unseparated in the first version of this document, this section is dedicated to some of the interesting Panda related prototypes, pieces, etc. that I have picked up throughout my time collecting or have found pertinent enough to mention. While only one of these are widely available, the rest are either extremely limited in quantity or were never run due to various reasons.

Massdrop x Invyr Holy Panda Prototype

Figure 16: Massdrop x Invyr Holy Panda Prototype. (Courtesy of Jae.)

While many of you know by now that I have a penchant for collecting prototypes or sample switches prior to their release, these were actually one of the first prototypes that I was lucky to obtain. Not being functionally any different from the release version of these switches, these pre-production prototypes would have been from the first batch of switches produced and distributed to reviewers, which Jae and Brian of TopClack were able to review at the time.

Invyr V1 Prototype

Figure 17: Invyr V1 Prototype. (Couresty of Invyr. (again))

In much the same fashion as Massdrop x Invyr Holy Panda Prototype from Jae, I obtained these purely out of collector's interest from the man behind the start of all of this drama, Invyr. While the switch is quite neat to have in its own right, the much more interesting aspect of obtaining this was the long conversation I was able to have with Invyr regarding the Panda switch from his end. This conversation is directly responsible for a lot of the knowledge about the initial release of these switches, since I wasn't around at that time, as well as an explanation of what happened to the Invyr Panda V2s that never were.
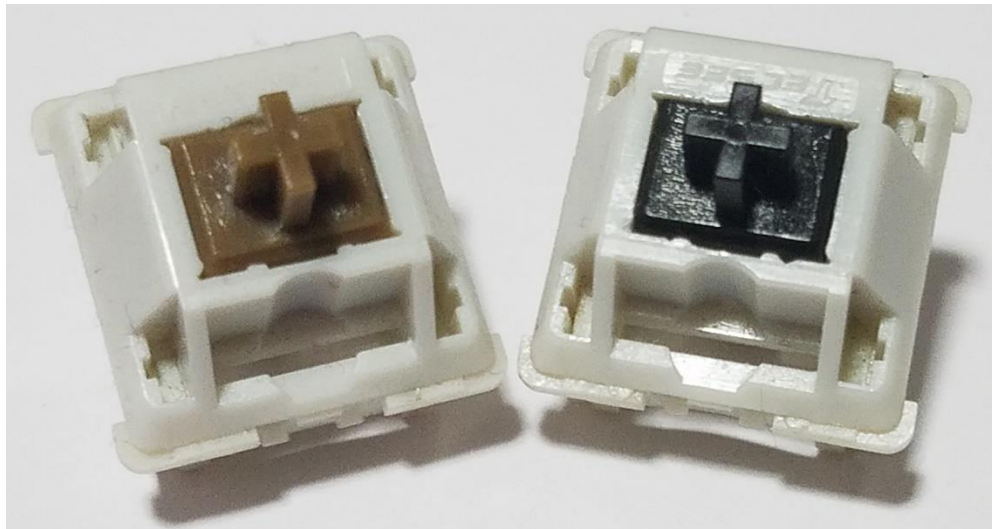
'Invyr Panda' Factory Samples

Figure 18: Tecsee Tactile (left) and Linear (right) Panda samples.

While at the time of writing of the first version of this document these didn't quite mean all that much, the recent explosion of groupbuy switches claiming to come from the 'factory that made Pandas' makes these much more interesting. Coming with a 'Tecsee' branded nameplate in two different stem variations, these Panda switches have a black stemmed linear and light-brown stemmed tactile version and came as part of the factory sample set from 'Tecsee' which u/Christokal so wonderfully helped me obtain. While Tecsee is only one of the brands that operates under this factory, it is rumored by several different sources that BSUN, YOK, and a few other manufacturing labels all come from this same factory, making the Pandaverse significantly closer than previously imagined. Other switches believed to have come from this factory include KK Lightwaves, Naevies, Glorious Pandas, and even Arctos switches.
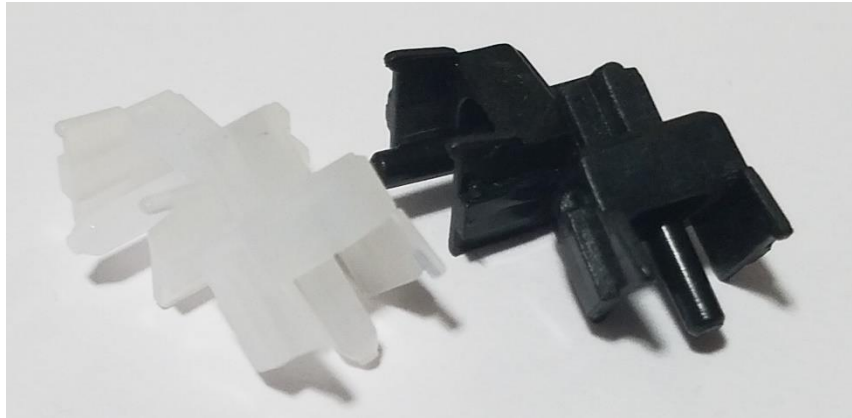
Figure 19: UHMWPE release stems (clear) and prototype stems (black).

Introduced to the community in January of 2020, these aftermarket linear stems made of Ultra-High Molecular Weight Polyethylene were marketed as an incredibly smooth alternative for frankenswitch builders. After seeing a fair amount of successful sales across many different vendors, the availability of these shrunk in mid to late 2020 with an exclusivity deal, of sorts, being pushed through between Invyr and Drop. While many would imagine that these were developed as a reattempt at a new Invyr Panda switch by Invyr, these were in fact his first deviation from the Panda line and came as a direct result of the failure to launch of the Invyr Panda V2 line.
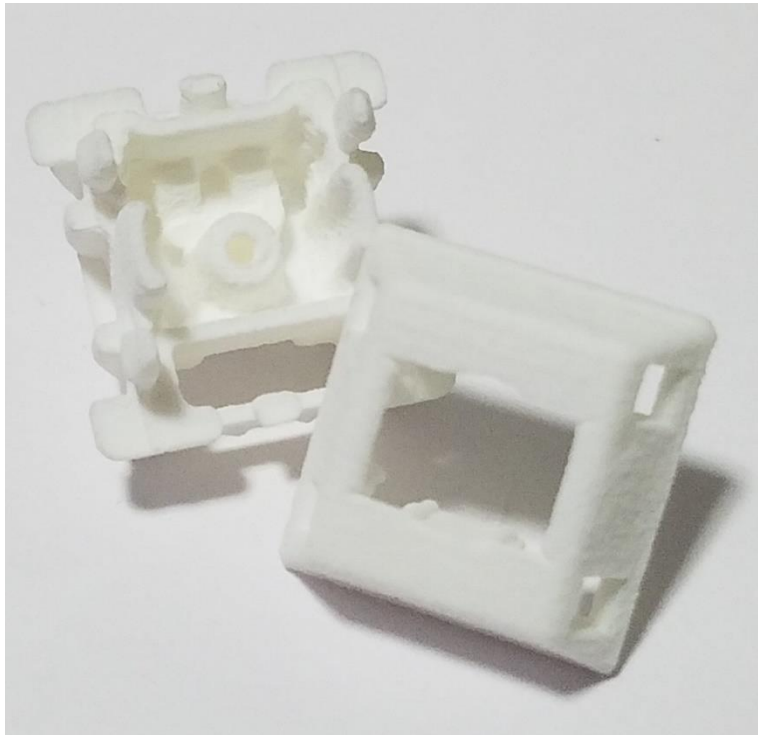
Invyr Panda 3D Print Attempt

Figure 20: 3D Print attempt of Invyr Panda housings. (Couretsy of Invyr)

Included alongside the UHMWPE stems, Invyr Panda V1 Prototypes, and Invyr V2 switches, Invyr went well above and beyond and included these interesting pieces into my package as well. While obviously not much came of this attempt, pictured above are a 3D printing attempt of Invyr Panda housings that were completed sometime between Invyr V1 and Invyr V2 switch runs.
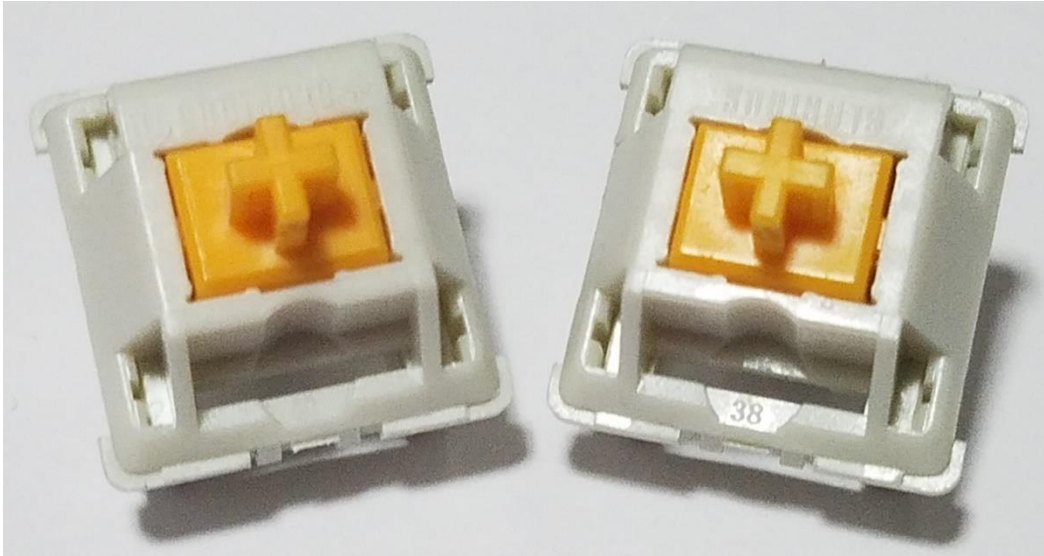
Glorious Holy Panda Prototypes

Figure 21: Glorious Holy Panda Prototype switches. (Courtesy of Shazim of GPCGR)

Interestingly enough, when I received my Glorious Panda switches for review from GPCGR, the CEO had included these switches with my order and a brief note detailing that he was not only aware of my work up to this point but a fan as well. These pair of switches, one lubed by the factory and one unlubed, were actually first mold attempts of the Glorious Panda switches and had a slightly different sound as well as a fair amount more stem wobble in them than the release switches. While many people in the community still feel wary regarding GPCGR's move to produce these switches shortly after Drop's failed claim at '100% POM' Panda housings, these prototypes at least provide a brief glimpse into the design of these switches and showed that they definitely made attempts to improve the switch's performance before release.

ThicThock Clear BSUN Switch

Figure 22: ThicThock Clear BSUN switch sample.

Prior to the coming up of ThicThock, a vendor which has since ran or will run switch groupbuys such as Marshmallows and Konpeitous, this was the company's first attempt at a switch sale. While the sale ultimately ended up folding due to manufacturer side issues, these clear, linear BSUN switches were rumored at the time of announcement to be another attempt at creating a 'Panda clone' due to the similar design idea as what Invyr V2 switches would have been. Due to not having run, these have long been relegated into the forgotten bin by most, save the few crazy individuals like myself.

Further Reading

Original Invyr Panda V1 Sales Page
Link: https://geekhack.org/index.php?topic=85438.250
Wayback: https://web.archive.org/web/20180703185833/https://geekhack.org/index.php?topic=85438.0

Reddit Page Hinting at Invyr Panda V2s
Link:
https://www.reddit.com/r/mechmarket/comments/88alwe/vendor_and_1upkeyboards_is_back/dwj4njv/
Wayback:
https://web.archive.org/save/https://www.reddit.com/r/mechmarket/comments/88alwe/vendor_and_1upke yboards_is_back/dwj4njv/

Original Invyr Panda V3/"Drop Panda" Sales Page
Link: https://drop.com/buy/invyr-panda-mechanical-switches/details#details
Wayback: https://web.archive.org/save/https://drop.com/?origin=%2Fbuy%2Finvyr-panda-mechanical-switches%2Fdetails#details

Original GSUS Panda Geekhack Groupbuy Thread
Link: https://geekhack.org/index.php?topic=98406.0
Wayback: https://web.archive.org/save/https://geekhack.org/index.php?topic=98406.0

Novelkeys' YOK Red Panda Sales Page
Link: https://novelkeys.xyz/products/yok-pandas
Wayback: https://web.archive.org/save/https://novelkeys.xyz/products/yok-pandas

Winthea's YOK Mint Panda Stickers
Link: https://www.instagram.com/p/BvtnPygH4VA/
Wayback: https://web.archive.org/save/https://www.instagram.com/p/BvtnPygH4VA/

Novelkeys' YOK Trash Panda Reddit Announcement
Link:
https://www.reddit.com/r/MechanicalKeyboards/comments/bn1c2m/yok_trash_pandas_now_available_at _novelkeys
Wayback:
https://web.archive.org/save/https://www.reddit.com/r/MechanicalKeyboards/comments/bn1c2m/yok_tras h_pandas_now_available_at_novelkeys

Novelkeys' YOK Trash Panda Sales Page
Link: https://novelkeys.xyz/products/yok-trash-pandas
Wayback: https://web.archive.org/save/https://novelkeys.xyz/products/yok-trash-pandas

Novelkeys' YOK Polar Panda Sales Page
Link: https://novelkeys.xyz/products/yok-polar-pandas
Wayback: https://web.archive.org/save/https://novelkeys.xyz/products/yok-polar-pandas

Massdrop x Invyr Holy Panda Sales Page
Link: https://drop.com/buy/massdrop-x-invyr-holy-panda-mechanical-switches#overview
Wayback: https://web.archive.org/save/https://drop.com/?origin=%2Fbuy%2Fmassdrop-x-invyr-holy-panda-mechanical-switches#overview

Novelkeys' Purple Trash Panda Sales Page
Link: https://novelkeys.xyz/products/yok-purple-trash-pandas
Wayback: https://web.archive.org/save/https://novelkeys.xyz/products/yok-purple-trash-pandas

YOK Unholy Pandas Typing Test
Link: https://www.youtube.com/watch?time_continue=20&v=oW_F1Zszg6I&feature=emb_logo

TopClack Massdrop Holy Panda Review
Link: https://topclack.com/textclack/2018/12/19/holy-panda-switches-new-and-old-by-quakemz
Wayback: https://web.archive.org/save/https://topclack.com/textclack/2018/12/19/holy-panda-switches-new-and-old-by-quakemz

UHMWPE Stems Sales Page
Link: https://invyr.com/products/invyr-uhmwpe-linear-stems-110-pack?variant=31295720816715
Wayback: https://web.archive.org/save/https://invyr.com/products/invyr-uhmwpe-linear-stems-110-pack?variant=31295720816715

ThicThock Clear BSUN Switch Original Reddit Announcement
Link:
https://www.reddit.com/r/MechanicalKeyboards/comments/cmdupo/new_vendor_preorder_for_transparent_gsus_switch/
Wayback:
https://web.archive.org/save/https://www.reddit.com/r/MechanicalKeyboards/comments/cmdupo/new_vendor_preorder_for_transparent_gsus_switch/