

# Cherry MX Brown Switch Review

-ThereminGoat, 03/14/2021

*Oh yes, it's finally that time.*

Cherry MX Browns are, without a doubt, one of the most well-known switches in the entirety of mechanical keyboard history. With that, a lot of different opinions of them exist out there. For the most part, I'm almost certain that nothing I could say in this review is going to be anything that hasn't already been covered somewhere by somebody at some point in time. There will be budding tech reviewers from many years ago who praised these switches as the 'best' among tactile switches available in the super short list of switches on the open market. There will be people who ridicule them, make memes about them, and not think a single positive thing of it. (In fact, I can think of one right now who practically does this as a full-time escapade.) And without a doubt, there were these opinions in the past and there will be these opinions in the future.

The only thing that I can offer to you reading this right now is *my* take on these switches as of the current moment in the hobby. As the switch market continues to grow and expand, and companies wax and wane in their presence, there is a very real possibility that this review will not stand the test of time – like many of those that came before it. But, nonetheless, let's have into a discussion about Cherry MX Browns.

## Switch Background

Cherry MX Browns were first brought into existence in 1992 as the result of a collaboration between Kinesis, an ergonomically focused keyboard company, and Cherry. Having outfitted their 'Advantage' split keyboards with Cherry MX Blues prior to this date, the owner of Kinesis was a fan of the feeling of the MX Blues, but not necessarily the loud noise that they would make. According to a Kinesis employee statement in 2012, this prompted a request from the owner of Kinesis to Cherry to create a tactile, low-force switch without the 'clicky' sound that comes as a result of the click jacket on MX Blue switches. And thus, the response from Cherry were the very first MX Brown switches.



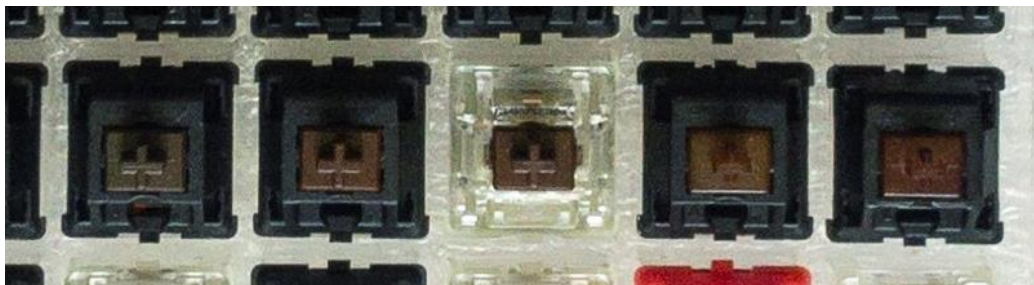
**Figure 1:** Kinesis Advantage 1 with Cherry MX Blue switches. [Photo from natas206 on Deskthority]

Officially dubbed as “ergo soft” switches, Cherry MX Browns were not listed in any default Cherry switch catalog for a bit of time after their inception, and were only available as a special-order item. In that meantime, though, Cherry used them as the default switch choice in their first in-house designed ergonomic split keyboard, the G80-5000 starting in 1994. After the release of the G80-5000, the MX Browns saw very little variation in usage outside of Cherry’s ergonomic board and Kinesis’ Advantage with the exception of a few point-of-sale (POS) boards until 2011. In 2011, Cherry officially released their first board containing MX Brown switches since the mid-1990s with the G80-3800.



**Figure 2:** Cherry G80-5000 with MX Brown switches. [Photo also from Deskthority]

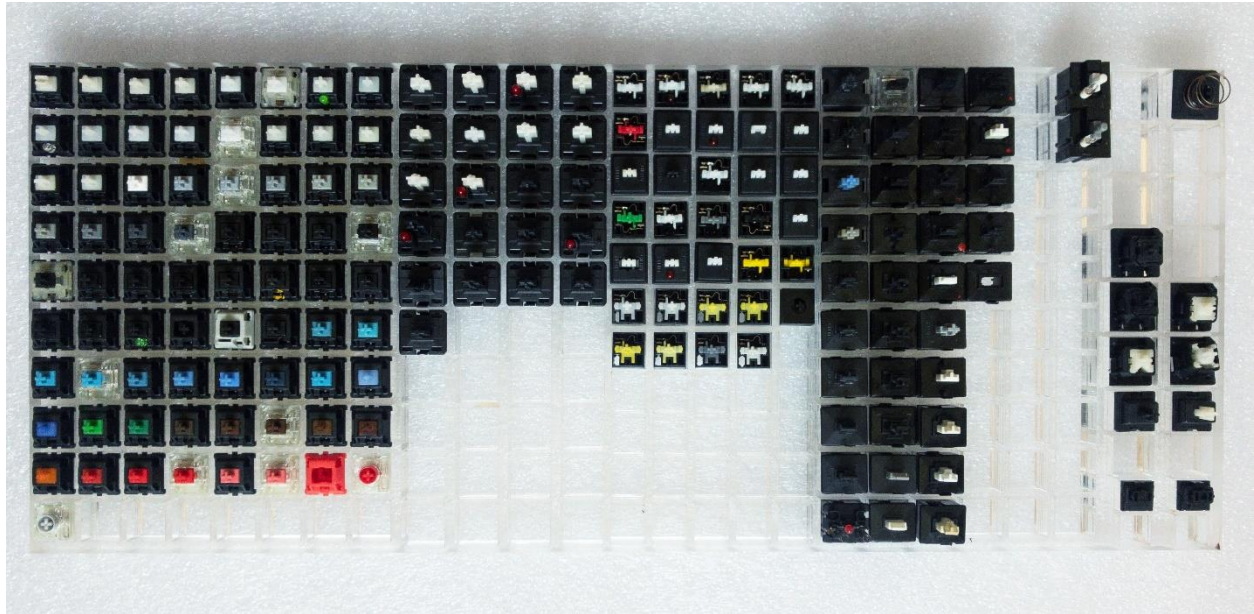
From this point in 2011, though, the entire history of Cherry MX Brown switches quite literally exploded into a million pieces. In the relatively short time between 2011 and the current date, Cherry began to fill countless OEM orders with MX Browns, making them virtually a staple option in literally any keyboard that would stock them, from POS, to corporate computers, and more prominently ‘gaming’ keyboards. To even pretend to figure out the specific, board by board history of Cherry MX Browns past this point would literally be a full-time job for the rest of my life if such a thing were even to be possible. However, since I am unable to go that much further into the history of MX Browns, lets differentiate from other reviews and to talk a bit about some technical details of Cherry MX switches as well as the known variations in Cherry MX Brown switches that exist out there.



**Figure 3:** Picture of the 5 variants of Brown colored switches from Cherry.

Before actually launching into a breakdown of what the Cherry MX Brown switches are in the photo above, I want to point out that these are (surprisingly) not from my collection. Instead, this photo (as well as the detailed part numbers) come as a result of one tireless collector by the name of UncleFan. While I have a much more vested interest in modern switches and offshoots of the Cherry MX design,

UncleFan has the world's largest collection of Cherry switches with over 175 unique Cherry switches, all painstakingly catalogued by part code. Needless to say, I'm beyond envious of his collection as it is incredibly well researched, catalogued, and stocked with switches that I could only dream of owning one day. Props to you UncleFan - it is an incredible collection.



**Figure 4:** An absolutely, insanely, and incredibly well researched Cherry switch collection from UncleFan.

1 2 3 4 5 6  
MX [1,3,5][A,C] – [0-9, A-Z][1][N,R,G,Y,D,J][N,W,A,B]

Keeping true to my word, as well as to fully appreciate the labels that UncleFan has figured out for switches in his collection, I think it is worth discussing how exactly Cherry generates these part codes for switches in the first place. Above, you'll note that I've color coded (with number labels for colorblind readers) an example layout for an MX part code so that we can break down how exactly these part codes came to be:

Red/#1 – MX simply refers to Cherry's internal part coding for 'Keyswitch Module' from the 'MX Family' design. (Other designs like MY, ML, etc. exist if you were unaware of these)

Orange/#2 – This category is simply listed as 'Material', 'Silenced Slider', and 'Special' as the three respective options without much of an explanation as to what these things mean. Beyond all doubt, the vast majority of you will have only used MX switches with a '1' for this category.

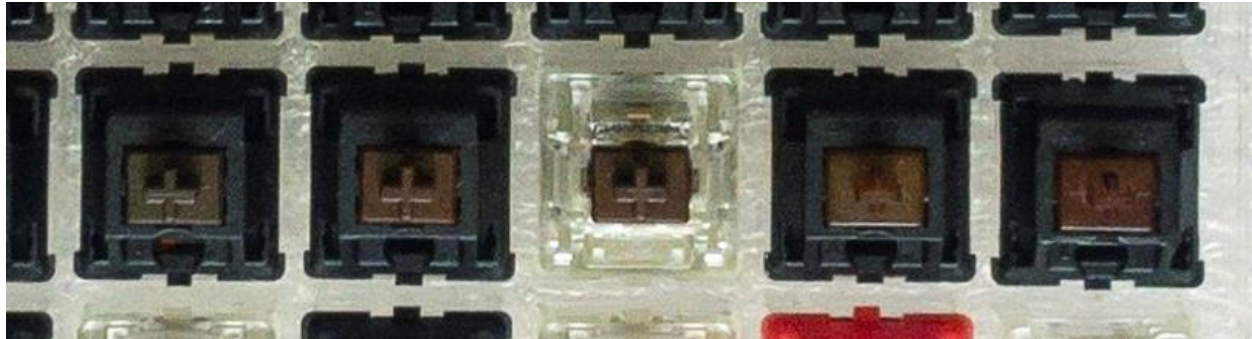
Yellow/#3 – This is a further classification of 'SPST NO' and 'Special', with SPST NO simply referring to switches that have a single stem, single activation, and are normally 'open' or not producing a signal.

Green/#4 – These are the classifications that correspond to what particular color and style of switch that is being used. MX Browns, for this class, correspond to the letter G. (For a full list, see the Deskthority link in the bottom of this article)

Blue/#5 – This code number corresponds to extra integrated components. While ‘N’ refers to none, ‘R’, ‘G’, and ‘Y’ correspond to different colored LEDs and ‘D’ and ‘J’ refer to diodes and jumper wires, respectively.

Purple/#6 – This last category is used to designate what color of the housings are either Black (N/W) or Clear (A/B) as well as whether or not these have PCB mount pins.

With this part designation in mind, let’s go through the 5 known variants that UncleFan (who is the undisputed Cherry expert) has come across in his time collecting. The list below is going in order from left to right.



**Figure 5:** Yeah, I posted it again because I didn't feel like scrolling either.

#### MX1A-G1DW

Listed as ‘Pale Brown’ in color in his collection, these likely belong to the older boards that the Cherry MX Browns were originally equipped in as the ‘D’ designation in the second to last letter of this part code corresponds to a diode being included within the switch.

#### MX3A-L1NN

Coming in as your ‘stereotypical’ MX Brown switch, these come in the classic, black Cherry nylon housings and have no PCB mount legs. This was not only among the very first switches that I added to my collection, but is also the Cherry switch that I will be discussing in the rest of this review.

#### MX3A-L1NA

The only difference between this switch and the one before it is that it comes in Cherry’s RGB housings rather than the Black housing. This also does not have PCB mount legs.

#### “Hirose Cherry MX Brown” and “Hirose Cherry MX Reddish Brown”

These are certainly the odd ones out here. If you’re familiar with Cherry Hirose switches, you’ll note immediately that these come from boards that appear much older than the 1992 debut of Cherry Brown switches. That is because these are technically not Cherry MX Browns in name nor in style. In fact, these are extremely rare variants of Cherry Hirose switches that are commonly seen in Orange or White, and have only been photographed in this Brown variant twice as far as I am aware.

In addition to the Cherry MX Brown switches that exist out there, many of you who are reading this have likely encountered Brown switches that have been created by other companies since the expiry of the Cherry MX patent around 2014. In fact, variations in Brown switches have been noted as being made by under the following different nameplates and/or manufacturers:

Gateron (6+ Different Variants)

TTC (3 Different Variants)

Kailh (6+ Different Variants)  
NewGiant  
Huano  
Longhua (Which is technically made by Kailh)  
Content  
BSUN  
Zorro  
Greetech  
Xinda  
Kaicheng  
Outemu (4+ Different Variants)  
Noppoo  
KBTalk  
Orange

## Cherry MX Brown Switch Performance

*Note:* As mentioned above, this review will be done on black housing, MX3A-L1NN switch.

### Appearance

Unlike more modern switch reviews that I do, Cherry MX Browns are fairly short, sweet, and to the point when it comes to appearance. These feature all black, nylon housings with a brown, 'tea' colored stem and silver colored springs that are most likely made of steel. Pictured in Figure 6, you'll note the tactile stem legs on the Cherry MX brown are fairly subtle in their bump as well as the only two mold marking circles on the stem, which are located on the front side of the Cherry MX Brown stem.

The only other interesting point of note regarding the appearance of these switches are the mold markings of the bottom of the bottom housing. While I sincerely doubt that we are at any risk of Cherry switches being one to one replicated by JWK or any other Chinese manufacturer, I am still interested in the mold markings in much the same fashion as I am with newer releases. In particular, the mold marking that stands out the most relative to other, newer releases is the sideways printed set of three numbers corresponding, I assume, to either mold or production line numbers. As well in Figure 7, below, a fairly standard one letter mold code can be found between the LED pin holes in the bottom right-hand side, which is common among the recent molds I've photographed. Finally, there are two large, smooth circles where PCB legs would be implemented.



**Figure 6:** Cherry MX Brown side profile.



**Figure 7:** Cherry MX Brown bottom housing mold markings.

### Push Feel

The push feel of Cherry MX Browns is the most consistently meme-d upon part of the “Cherry MX Brown experience,” and to be entirely honest I don’t think that it is that deserved. While the switches definitely aren’t exactly the finger-breaking tactility that people deeply entrenched in this hobby seem to enjoy en masse, these switches actually have a fairly subtle, light end tactile bump that is noticeable without being overpowering. Centered in nearly the middle of the stroke both by feel and by the numerous force curves that exist out there for them, the downstroke and upstroke both provide a light and just the tiniest bit snappy tactile bump experience.

While I’ve now thoroughly explained why I think the “ArE ThEy TaCtIlE oR LiNeAr” memes are a bit overblown and not indicative of the reality of these switches, I think the rest of the commonplace ideas about Cherry switches hold true here. The one that I have from my collection as well as the few that I have lying around in spares have a noticeably harsh, gravelly scratchiness that leads many people to “break in” linear Cherry switches such as MX Blacks. As well, while they all have a quite solid bottoming and topping out feeling – something that is seriously lacking these days from modern switch options – there is a bit of a ‘pingy’ feeling from either the leaf or the spring that holds back the overall quality of these switches in their stock form.

Keeping the above-mentioned notes about push feel in mind, I know for a fact that these switches can be improved with aftermarket modifications. Cherry is one of the few brands where I genuinely feel that the greater time you put into modifying the switches, such as a skillful application of lube, breaking them in, spring swapping, etc., the greater reward you can get from them. In fact, I’ve felt Cherry MX Brown switches in the past that have been modified to such an extent as to mitigate if not altogether eliminate the list of weak points stated above.

### Sound

In stock form, the sound of these switches is... not great. The gravel like scratch in the push feel definitely comes through in the form of an equally as gravelly scratch sound that would make even DMX a bit shy. As well, there is a fairly noticeable spring/leaf ping noise that happens at higher activation

speeds when used in hand. That being said, both of these things are dampened a decent bit when placed on a board and used with any sort of caps on.

The one shining point in these switches in terms of sound is the same brilliant point across all black housing Cherry switches: the muted, deep, and solid sounding bottoming out and topping out. In addition to a noticeably thicker top and bottom housing by inspection, the nearly pure nylon composition of these housings makes for an incredibly sounding set of collisions in all Cherry switches, as well as the MX Browns.

### Wobble

Given the fact that Cherry MX switches have been produced in such astronomically large quantities, it's really hard to gauge the wobble of the switches on as small of a subset of switches as I have in hand. When you are reading this and thinking of your own MX Browns you've tried out before, know that your mileage has almost certainly varied compared to mine.

In the switches that I had for testing, there was some top housing wobble in the E/W direction, but not substantially enough to affect performance. In addition to being able to be fixed by the use of films, I believe this could easily be dealt with by using a plate with tighter tolerances. As well, there is a noticeable amount of stem wobble in both the N/S and E/W direction, with even the greater magnitude E/W direction wobble not being among the worst that I've seen in reviews thus far. Overall, they're not nearly as bad for wobble as I or many people would have memed them out to be, but they aren't spectacular either.

### **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 Cherry MX Brown side by side.



**Figure 8:** Switches for comparison. (L-R, Top-Bot: Pewter, Lilac, Kailh Polia, Koala, Kailh Box Royal, Gateron Kangaroo Ink)

### Pewter

- The first, most noticeable difference between these two switches is that the Pewters are by far significantly less tactile and have a much lighter bump than the Cherry MX Browns.
- As well, being that these are factory lubed switches produced at JWK, the Pewter switches are significantly more smooth and have noticeably less wobble.
- The tactile bump of the Pewters, while fairly centrally located relative to other tactile switch offerings currently, is still a bit earlier in the stroke than the Cherry MX Browns.

### Lilac

- The Lilacs have a noticeably more snappy tactile bump than the MX Browns in terms of push feel and especially so in terms of sound.
- While the Lilacs aren't particularly smooth on their own, and have a slight bit of scratch feeling in them, they are noticeably less scratchy than the Cherry MX Browns.
- As well, the Lilacs had significantly less stem wobble in both directions as compared to the MX Browns.

### Kailh Polia

- Polias have both noticeably longer and stronger tactile bumps than the relatively short and light Cherry MX Brown. With that in mind, the tactile bump of the Polia switches starts significantly earlier in the downstroke than the MX Browns.
- With respect to sound, there is a bit of a strange note to make here. While the tactile bump of the Polias sound more full bodied, deeper, and firm, the Cherry MX Brown housings and the collisions with those housings produce the deeper and more firm sound out of the two of these switches.
- Both the MX Browns and Polias have a comparable amount of stem wobble, with the Polias having a more fairly balanced N/S and E/W magnitude wobble than compared to the MX Brown's E/W dominant stem wobble.

### Koala

- While located in a different spot in the downstroke and having a different strength in tactility, the Koala's tactile bump feels significantly more 'singular' than the MX Browns which feels a bit less distinct and coherent.
- Overall, there is significantly less stem wobble and top housing wobble in the Koala switches than in the MX Browns.
- Of all of the tactile switches in this list, I would say that these definitely appear to have the most similar scratch feeling as the MX Browns, though it is significantly lesser in magnitude.

### Kailh Box Royal

- The Box Royals have both a significantly stronger tactile bump and a significantly more rapid fall off in tactility as compared to the MX Brown switches. While the MX Browns are definitely smaller in terms of overall size of bump, they feel more like driving over a speed bump than driving off of a cliff that is the tactility of Box Royals.
- While the Box Royals certainly give the Koalas a run for their money in terms of comparable scratchiness as compared to the MX Browns, it is noticeably a bit more fine and less 'gravelly' than the MX Browns.
- Overall, the bottoming and topping out sounds of the Box Royal are much more thin and airy sounding than the firm, solid sound of the Cherry nylon housings.

### Gateron Kangaroo Ink

- The Gateron Kangaroo Inks have a noticeably more snappy tactile bump than the MX Browns both in terms of sound as well as tactile feeling.



- As well, much like with all of the other comparisons on this list, the Cherry MX Browns still completely beat out the Kangaroo Inks in terms of solidness and deepness of bottoming out sound and feel.
- There is significantly less stem wobble in both the N/S and E/W directions of the Kangaroo Inks as compared to the MX Browns.

### *Bonus Round*

It's not everyday that you review a classic like MX Browns, so here's a few more comparisons to enjoy:

#### Gateron KS3 Brown

- The Gateron KS3 Brown definitely has more of an overpowering scratch to its stroke than the Cherry MX Brown, but its also significantly more consistent across the stroke.
- The Cherry MX Browns are much worse for stem wobble in both N/S and E/W directions as compared to the Gateron Browns.
- The Gateron Brown tactile bump is just the smallest fraction a bit softer and lighter than that of the Cherry MX Brown.

#### Kailh Brown

- The Kailh Browns feel a bit more heavy in terms of bottoming out spring weight as well as the tactile bump. This gives it an every so slightly stronger, and more crisp tactile event than that of the Cherry MX Browns.
- The Kailh Browns also have a tactile bump that is noticeably higher up in the push feel as compared to the Cherry MX Browns.
- The Cherry MX Browns still edge out the Kailh Browns in terms of depth of sound for topping and bottoming out, though it isn't by much.

#### Outemu Brown (OEM White Bottom)

- The Outemu Browns have an ever so slightly greater tactile bump than the Cherry MX Browns, but happens to match the location in the stroke nearly exactly to that of the MX Browns.
- The Outemu Browns also have noticeably louder spring or leaf ping that is noticeable at all typing speeds, rather than sequestered to higher typing speeds like in Cherry MX Browns.
- Again, much like with Kailh Browns, Cherry MX Browns have noticeably deeper topping and bottoming out sounds than that of the Outemu Browns.

#### TTC Gold Brown V2

- Of all of the switches on this list (as well as the normal list above this), these are the most thin and flimsy sounding and feeling switches out of all of them.
- I would also go as far as to say that while they have a more consistent scratch feeling than that of the MX Browns, it is overall more noticeable than in the MX Browns.
- Surprisingly, though, the TTC Gold Brown V2s are on par, if not a tiny bit better with respect to stem wobble in both directions than the Cherry MX Browns.

## 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.

Cherry MX Brown		
21	/35	Push Feel
14	/25	Wobble
4	/10	Sound
18	/20	Context
5	/10	Other
62	/100	<b>Total</b>

### Push Feel

Stock Cherry switches, in general, don't tend to be all that great relatively speaking and MX Browns do it no favors. Between the aggressive scratch, ping-like feeling due to the leaf, and non-cohesive bump, it's hard to give this a much higher score. The biggest savior of these switches, by far, is it's iconic low-tactility bump and the rock-solid bottoming/topping out.

### Wobble

While I stated in the long-form review that wobble is highly variable across the years of MX Brown production, the average switch I've tried has a slight bit of E/W top housing wobble and noticeable stem wobble. The stem wobble also has a stronger E/W wobble than N/S.

### Sound

The sound, overall, really isn't great in this switch and it is very much a mirror of the push feel. There is an overwhelmingly rough scratch sound that sits on top of a slight ping at higher activation speeds and a jagged tactile bump sound.

### Context

Say what you want about this score. These have been insanely prevalent in this community since its inception, they're widely available, cheap, and the entry point for so many enthusiasts into this hobby. While they could be a bit better about quality, there's no arguing that these are contextually one of the most important switches of the modern era.

### Other

It's really hard to really quantify the value of these switches or even their performance relative to other switches given how much of a 'baseline' they've been not only for myself but for everyone for some time. While they do provide good memes in and of themselves, I truly think MX Browns deserve more recognition than they get when viewed as a whole.

## Statistics

Average Score			Cherry MX Brown		
26.1	/35	Push Feel	21	/35	Push Feel
15.6	/25	Wobble	14	/25	Wobble
5.6	/10	Sound	4	/10	Sound
11.9	/20	Context	18	/20	Context
5.7	/10	Other	5	/10	Other
64.9	/100	<b>Total</b>	62	/100	<b>Total</b>
MX Brown Overall Rank			T-#40/68 (62/100)		
MX Brown 'Hard' Rank			63/68 (39/70)		
MX Brown 'Soft' Rank			T-#5/68 (23/30)		

## Final Conclusions

As I alluded to in the introduction to this review, to the many of you who are my regular readers, this doesn't have much information you've not already heard before. To that end, though, I didn't just do this review "for the memes" but rather to more deeply explore something that has been reviewed or thought about by quite literally everybody who has brushed with mechanical keyboards before. In some sense, doing this review is a lot like my Gateron Yellow switch review in that it gives a litmus test for new readers to gauge my reviews directly to that of other Gateron Yellow or MX Brown switch reviews out there to determine how I stand in terms of reviewers. On another hand, though, one could argue that this review was long overdue on my end and it's great timing to start this review off as my first one of my second year of this website.

Having actually stepped up to the task, though, and reviewing Cherry MX Browns, I can say that I'm not entirely surprised by my findings. If anything, what I found most shocking is how actually decent these switches are relative to the hate and memes that cast an aura of negativity on these switches and those who use them in builds. While these certainly aren't world ending, and I sincerely doubt that I would personally ever use them in a build, they are still an extremely viable option for beginners and old users alike. Specifically, within the beginner category, I think Cherry MX Browns stand as a great introductory switch as they're fairly cheap, widely available, and relatively subtle in design, in marketing, and especially in switch feel relative to whatever uber-RGB, rock candy-colored new releases are around for half a second before being sold out.

So, to put the questions so many beginners have asked of me before to rest for now: No, I do not think these are "great" switches. That doesn't mean I think that they are bad either. These are a good, subtle, and widely available introductory switch into the hobby that may end up being the switch that you love for the rest of your time in the hobby. In some sense, though, their rough-around-the-edges nature is what pushes many people deeper into the hobby if they don't fall in love with them out of the gate. By driving many newer users to improve the performance of these switches via aftermarket modifications, or to altogether seek out technically better replacements, I think Cherry MX Browns have a much deeper

importance to this hobby and its growth than many people currently consider. Not every switch has to be world-endingly smooth, or perfectly balanced in wobble to make an impact in this hobby.

## **Sponsors/Affiliates**

Interested in some of the switches that I've compared to MX Browns here but don't want to buy 90 packs just to try them out? Follow my affiliate link below to Mechbox to try out their singles and support these reviews!

Link: <https://mechbox.co.uk/?ref=theremingoat>

## **Further Reading**

[UncleFan's Cherry Collection Lastest Update](#)

Link: <https://deskthority.net/viewtopic.php?t=23932>

Wayback: <https://web.archive.org/web/20210314032709/https://deskthority.net/viewtopic.php?t=23932>

[UncleFan's page showing Cherry MX Hirose Browns](#)

Link: <http://mousefan.telcontar.net/image/ncrf020.htm>

Wayback: <https://web.archive.org/web/20210314032825/http://mousefan.telcontar.net/image/ncrf020.htm>

[Kinesis Employee Statement about origin of MX Browns](#)

Link: <https://geekhack.org/index.php?topic=37100.msg706886#msg706886>

Wayback:

<https://web.archive.org/web/20210314032900/https://geekhack.org/index.php?topic=37100.msg706886>

[Deskthority's Cherry MX Switch Page](#)

Link: [https://deskthority.net/wiki/Cherry\\_MX](https://deskthority.net/wiki/Cherry_MX)

Wayback: [https://web.archive.org/web/20201221214431/https://deskthority.net/wiki/Cherry\\_MX](https://web.archive.org/web/20201221214431/https://deskthority.net/wiki/Cherry_MX)

[Cherry's MX Brown Page](#)

Link: <https://www.cherrymx.de/en/mx-original/mx-brown.html>

Wayback: <https://web.archive.org/web/20210305120554/https://www.cherrymx.de/en/mx-original/mx-brown.html>

[Worst Review of MX Browns to Date](#)

Link: [https://www.youtube.com/watch?v=Bc32Fv4P0tw&ab\\_channel=Glarses](https://www.youtube.com/watch?v=Bc32Fv4P0tw&ab_channel=Glarses)