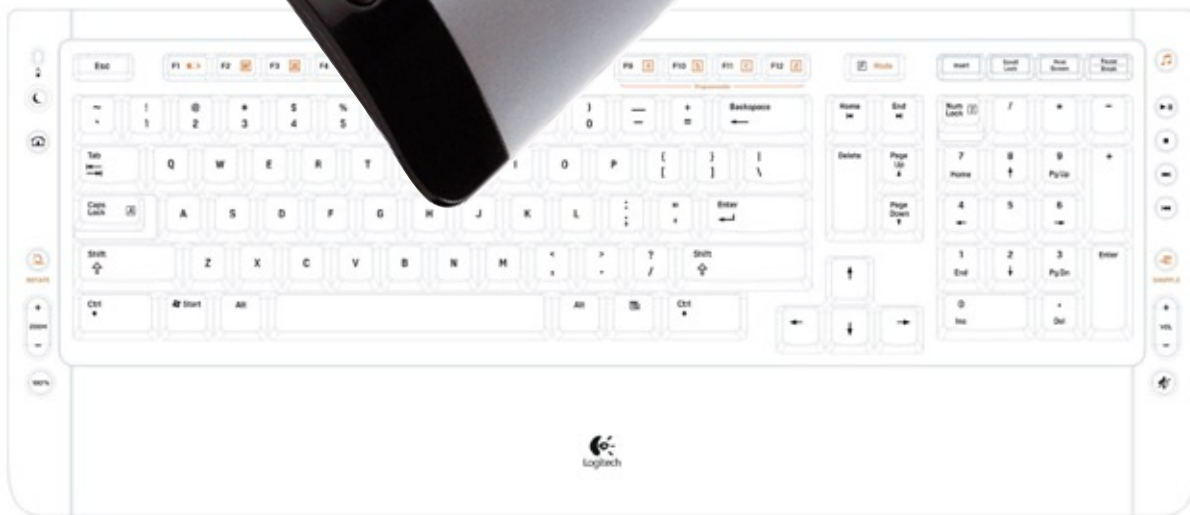
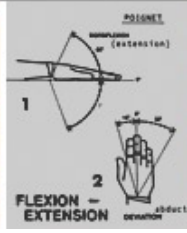


Logitech Keyboards and Desktops

Leading innovation
in the design of
comfort



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We have all witnessed an amazing transformation of the PC in recent years. It has morphed from pure productivity tool into a powerful environment that lets users connect to the world for information, communicate with almost anyone, enjoy video and audio entertainment, and much more. We are spending more time at our PCs than ever before, and that means the issues of comfort and usability are becoming increasingly important. Logitech has always been a leader and innovator in keyboard design, and the new Logitech® Cordless Desktop® MX™ 3000 Laser is a case in point.



A little revolution is a good thing

Terminology

Ergonomics is the study of how to best adapt tools and devices to human characteristics and needs. Comfort is the pleasurable state of being relaxed.

Usability is the effectiveness with which users can achieve specific intended tasks with a product or a feature. Ergonomics is a science. Usability is both a method of study and an outcome.

Comfort is a result.

Logitech's new generation of keyboards is extraordinary in the sense that every aspect of the keyboard has been addressed to enhance the total comfort experience. Our approach to comfort begins with ergonomics. The first strikingly attractive result is a new design that is flatter and thinner, and consumes less space on the desktop. Logitech's new keyboards are not the first to claim an ergonomic benefit, of course. Many are familiar with the older split keyboard that was designed to reduce the discomfort associated with wrist ulnar deviation and forearm pronation. However, the new Logitech keyboard platform taps the deeper ergonomic potential of the straight keyboard—the keyboard that the vast majority of users (including, importantly, those who do not touch type) are most familiar and comfortable with. Second, we have introduced a range of innovations related to key design and key placement that greatly enhance the user experience. Finally, we have made refinements to navigational controls that offer the benefit of reducing repetitive motion, and enable more efficient two-handed navigation.

In the following pages, we'll look more closely at these innovations that, taken together, make this generation of keyboards a new world standard.

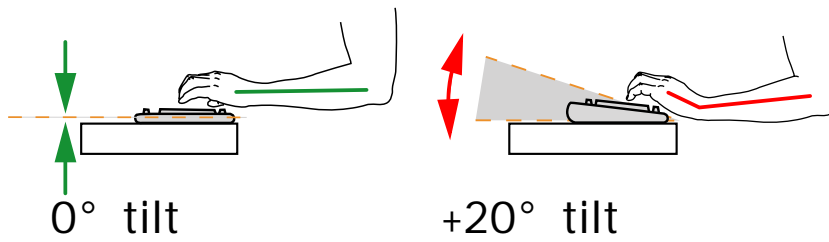
Ergonomic roots

When ergonomic principles are followed, comfort naturally follows. Logitech's new keyboards share several ergonomic advantages:

- Zero Degree Tilt™
- Lower keyboard height
- Two-handed navigation

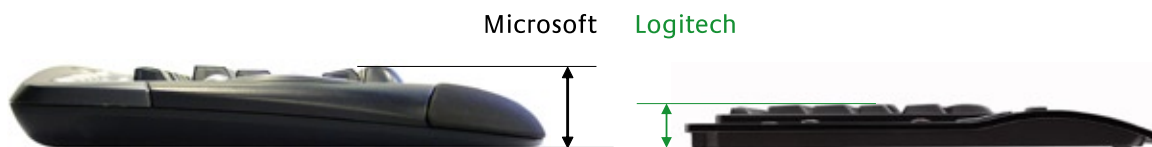
Zero Degree Tilt

Over the last decade many studies have shown the benefits of a flatter keyboard. They suggest that one of the primary benefits of a keyboard with 0 degrees slope is less wrist extension. This in turn may reduce the risk of hand and forearm discomfort and musculoskeletal disorders.



Lower keyboard height

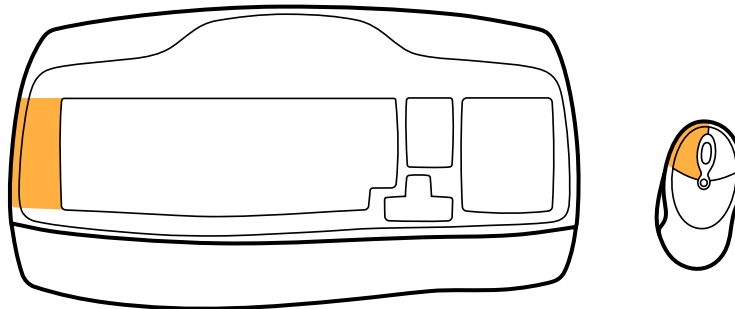
Keyboard height is another factor with ergonomic implications. Lower height may significantly reduce upper extremity symptoms. Logitech has been a relentless innovator on this front.



	Logitech Cordless Desktop MX 3000 Laser	Logitech Cordless Desktop S 510	Logitech diNovo Media Desktop Laser
TILT Angle between row 'B' (Shift key) and row 'E' (numbers)	0°	0°	+1.5°
PROFILE Distance from the table to the top of the F and J key ('C' row)	22.5mm	18.6mm	12.6mm

Two-handed navigation

Two-handed navigation is enabled with keyboard tools such as a scroll wheel, Page Back and/or page Forward buttons, image zooming, or controls that let users toggle between open windows. The left hand commands the keyboard tools, completing tasks that once required the mouse. The right hand can now move the mouse within a smaller radius, and focus on tasks that complement the left hand. Each hand stays comfortably in its own zone. In this way, users can accomplish their work and media-related tasks faster, more easily, with higher precision and enjoyment—and with less one-hand fatigue.



The keys to overall comfort

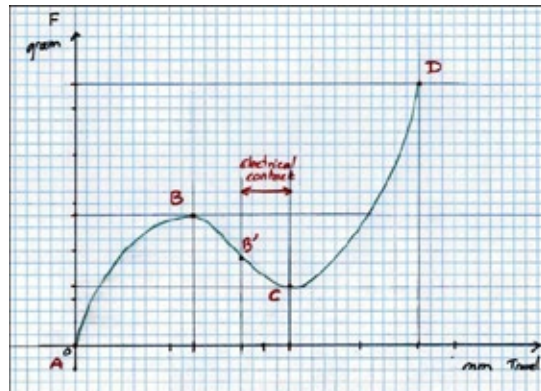
In addition to the ergonomic factors of keyboard flatness and two-handed navigation, Logitech has made remarkable usability improvements to the keyboard's palm rest and keys themselves. In isolation, each of the key-related changes described here seem small, but together they create a far more intuitive and easier working experience.

Improved key design and feel

Refined typing feel

Typing feel, an essential dimension of comfort, is an amalgam of several different factors, including the way fingertips fit the surface of the keys, and even the quietness of the keys in operation. This last factor is subtle, and involves a measure of subjective impression, but it can't escape the attention of those working toward total comfort refinement. The goal is to reach an almost imperceptible level of noise. The Logitech line, paced by its diNovo™ Media Desktop™ keyboard, outperforms the field in third-party testing¹.

As for typing feel, two factors are central. The first is displacement or travel—the distance the keys move during their downward stroke. The second is the force the hand must exert to press the keys downward. Logitech's research and development team has done breakthrough work to optimize these variables to continue to lower overall keyboard height. As stated earlier, lowered height carries its own ergonomic benefits, but also alters the keys' travel distance. All Logitech keyboards, independently of their height or shape, are designed to match as closely as possible this optimal force/displacement curve.



New recess on Caps Lock and Num Lock keys

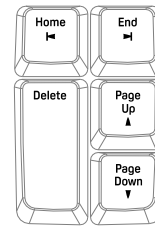
Almost every computer user has accidentally pressed the Caps Lock key while typing. It's not only annoying, it wastes valuable time and effort. To alleviate this problem, Logitech has added a special recess to the bottom edge of the key, designed to reduce accidental presses. This same refinement has also been added to the Num Lock key.



New key locations, shorter distances

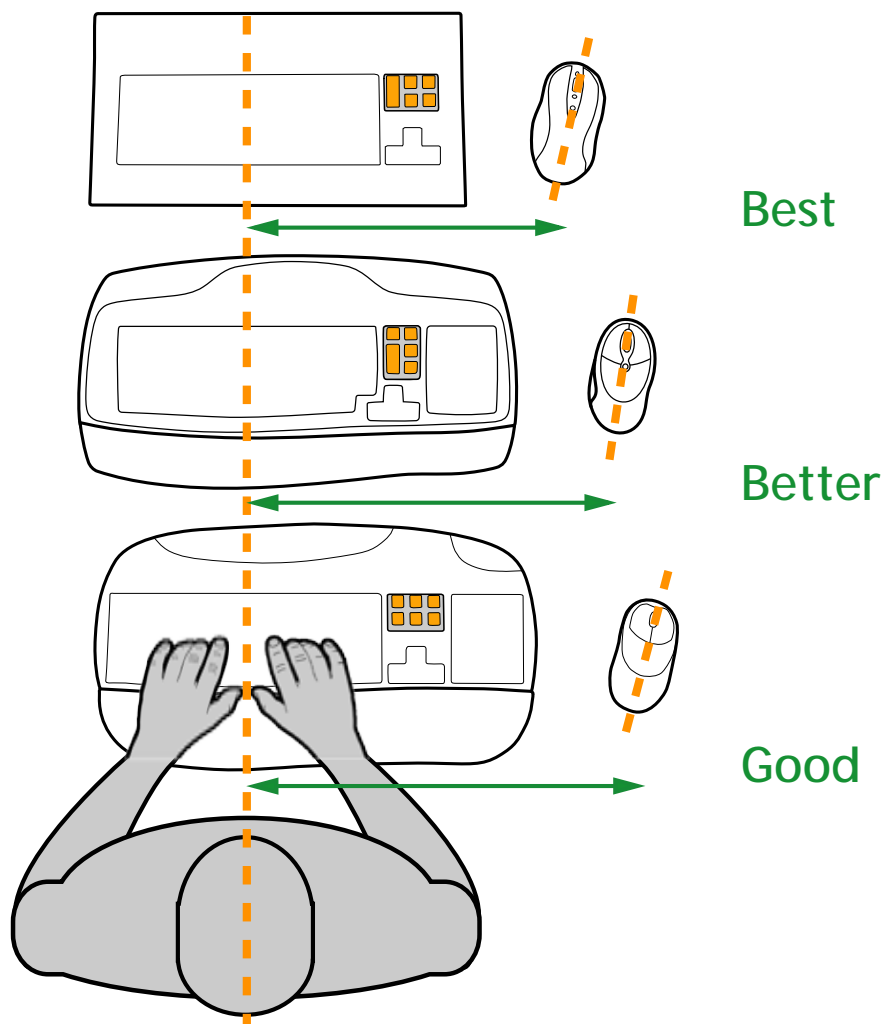
Redesigned 5-Pack

In Logitech's new keyboard line, a narrower, more intuitive 5-Pack replaces the conventional 6-Pack. The traditional Insert key has been moved to the row of F keys, where it more rightly belongs. This reduces the chance of accidentally pressing the wrong key—to name just one among many benefits explained in this section.



Repositioned mouse

Past studies have revealed a comfort advantage in bringing the mouse closer to the typing area. Logitech's new design lets users work with their mouse a full key width closer to the keyboard. The Logitech diNovo Media Desktop takes this concept a step further by separating the numeric pad from the keyboard, allowing the user to place the mouse even closer to the keyboard, thus offering the optimal solution to reduce arm displacement



Repositioned and larger cursor keys

The new cursor keys are now 15 mm (0.60 inch) closer to the J key. This makes entering and editing text even more precise and convenient, since the right hand doesn't have to move away from the typing area. The new cursor keys have a larger surface, which may also add to user comfort.



Improved A Row

Several improvements have been made to the A row:

- The new A row has a larger left Ctrl key, and eliminates the redundant Start key on the right.
- The Ctrl, Start, Alt (Gr), Space, and Contextual keys are even easier to find and use.
- The A row now has special convex keycaps, to work more naturally with the space bar.

Redesigned, relocated F row

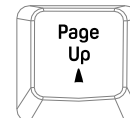
The F row has been completely redesigned, starting with a relocation of the Insert key. Depending on the specific product, F keys are either round or rectangular. This design is more attractive, and makes it easier for users to distinguish from the main keys. It also communicates single-touch action far more effectively than standard keycaps.



Easier-to-find keys

Centered labels and new icons

Easier-to-read labels are now printed on the center of each key, and the new icons communicate each key's function much more clearly. Additionally, the keys are larger and flatter, making this information stand out, and increasing the overall visual appeal of the keyboard.

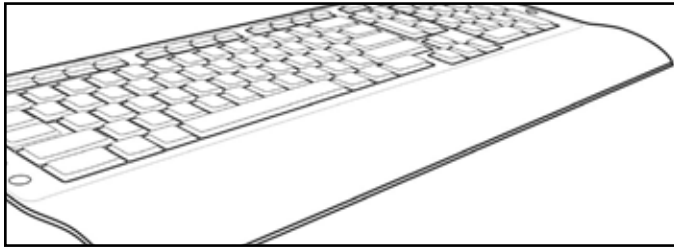


More intuitive key placement

Consider the placement of the new 5-Pack, for example. The Home and End keys are now arrayed horizontally, the Page Up and Page Down keys vertically—a far more logical arrangement. And the Delete key is fully twice as long as before, to enhance accuracy and save time.

Resting easier

While not ideal, many users instinctively rest their palms on their desks, or on a keyboard palm rest, while typing. In the case of the desk surface, there is greater risk of pressure against the hand, and resulting discomfort. Traditional palm rests have either been bulky or detachable. The detachable solution has at least offered the user a choice between more comfort and space saving. Logitech's newer ultra-flat keyboards take a different path, featuring a palm rest that is smoothly integrated into the flat profile. In addition to greater convenience and a smaller footprint, this palm rest minimizes wrist extension between hand and forearm, and provides a more convenient place to rest the hands between typing sessions.



And there's even more to tell you

The new Logitech keyboard platform creates a comfort experience that is in a class by itself, perfect for today's PC user. For complete information about Logitech's new keyboards and cordless desktops, please go to:

www.logitech.com/comfort

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The information contained in this document is provided AS IS without warranty of any kind. Some experts believe that the use of any keyboard may cause serious injury to your hands, wrists, arms, neck or back. For important ergonomic information about setting up your computer workspace, please read our Comfort Guidelines, which can be found at www.logitech.com/comfort.