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Natural Ergo Keyboard 4000



by Microsoft

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Product Summary

The Microsoft Natural Ergonomic Keyboard 4000 is designed to assist users to achieve a more neutral and natural posture while doing data entry. The design orients keys at varying angles, from a maximum 14° tent in the middle to a traditional "flat" or 0° by the time the outer alpha keys are reached. The left and right key groups are also splayed slightly outward to encourage a nominally more neutral alignment of the wrists. The control housed between the splayed keys is for Zoom (not vertical scroll as many may assume). A lightly padded 3" deep leatherette palm rest is permanently affixed to the keyboard.

The minimum key height on this keyboard is 1" off the surface on which the keyboard is placed (2" on the keys in the middle of the keyboard). This elevation may require users to either raise their seats to accommodate the height of the keyboard or to use a keyboard tray to lower their keyboard into their lap. The keyboard also includes a detachable palm lift that raises the front to create a 7° negative slope intended to encourage better wrist alignment. Use of this lifter may require further adjustments of seat or keyboard tray height because it adds another full inch of elevation to the middle of the keyboard and increases the risk of a "pinch point" being created on the underside of the wrists.

This keyboard is available in two models, a standard US English model and a Unilingual French Canadian model

Please Note: Activation of the spacebar on the Microsoft Natural Ergo Keyboard 4000 may feel somewhat stiff or "sticky". If the spacebar is pressed at one edge, the resistance is noticeably higher than when pressing it in the middle - this is not a warranty related issue.

Ergonomic Benefits

Reduces Risk to the Elbow and Forearm - The fully pronated "palms down" position adopted by the majority of computer users when typing and mousing puts a considerable strain on the tissues of the elbow and forearm. The result can be fatigue, inflammation and long-term injury. The slightly angled Gull Wing design of the keys on the Natural Ergo Keyboard 4000 can help reduce this strain by rotating the forearm back towards a more natural posture.

[Learn More About Pronation.](#)

Reduces Risk of Wrist Injury - Typing on a conventional keyboard requires experienced typists to bend the wrists outward towards the little finger in order to keep the fingers in the correct position on the home row. This posture, known as "ulnar deviation", puts considerable strain on the joint and tissues of the wrist. The nominal fixed "splay" on the Natural Ergo Keyboard 4000 can somewhat reduce this strain by aligning the keys to better match the natural posture of the body and decrease the degree of deviation.

[Learn More About Ulnar Deviation.](#)

Can Reduce Wrist Extension - The incorporated palm rest can aid users to reduce the risks of Wrist Extension by keeping the wrists from dropping down to the desk or keyboard tray surface. The "lift" accessory can address this even further by creating a "negative inclination" that actively directs the wrists towards a more neutral alignment. However care needs to be taken to ensure that other issues are not created (see Usage Tips for more detail regarding this).

[Learn More About Wrist Extension.](#)

Features

- **Preset Fixed "Splay"**: The keys are arranged with a limited preset degree of splay to help reduce ulnar deviation.
- **Partially "Tented" Gull Wing Design**: The keycaps transition from a 14° angle on the innermost column down to 0° of tent on the outermost column of keys.
- **Fixed Palm Supports**: The Natural Ergo Keyboard 4000 incorporates a lightly padded but positively inclined palm support.
- **Removable Riser (attaches below the palm supports)**: Elevates the front edge of the keyboard to create a 7° "negative inclination". (see notes in Usage Tips)
- **Zoom Toggle**: The Zoom Toggle control is centrally located in the space between the splayed portion of the keyboard. It provides users with an intuitive control that lets them zoom in on content for greater ease of viewing or editing of emails, documents or web pages.
- **Web, Search, Email, Favourite Programs, Calculator & Multi-Media Controls**: The top of the keyboard includes one-touch keys to give quick access to common functions.
- **Back/Forward Buttons**: These features are incorporated into the integrated palmrest. Users will naturally want to access the Back/Forward buttons using the thumbs but this requires an uncomfortable stretch even for those with large hands. Those with smaller hands will have to remove their hand(s) from home row position in order to access these functions. Accessing these buttons with the index fingers may be an alternative but requires users to bring their hands in very close to their torso. This results in the elbows being forced to flare out and forward, resulting in an unnatural rotation of the shoulders.
- **Visual Indicators**: The placement of the visual indicators for Caps Lock, Num Lock, etc. at the very front edge of the keyboard requires users to look almost directly down in front of them. This takes the eyes of both screen and copy and will result in a reduction in data entry speed.
- **Note:: Full functionality of secondary functions will require installation of the appropriate drivers from Microsoft. In addition activation of Zoom control may require manual installation of the most recent drivers and customization of the Zooming feature to "Fast".**
[Current Drivers](#)

Images (Click on any thumbnail to view larger image)



Natural Ergo
Keyboard 4000



Natural Ergo
Keyboard 4000 -
side profile
measurements



Natural Ergo
Keyboard 4000 -
negative incline



Natural Ergo
Keyboard 4000 -
angled view



Natural Ergo
Keyboard 4000 -
front profile

Additional Resources

- **Current Drivers:** [Download](#)

Technical Specifications

- **Width:** 19.8" (50.3 cm)
- **Depth (front-to-back):** 10.3" (26.2 cm)

- **Height:** 3.26" (8.28 mm)
- **Weight:** 2 lbs 13.9 oz (1.30 kg)
- **Cable Length:** 60" \pm 6"(153.0 cm \pm 15.0 cm)
- **Number of Keys:** 104
- **Keyswitch Type:** Membrane
- **Keyswitch Rating:** 1 million actuations
- **Zoom Slider Rating:** 250,000 actuations
- **Hot Key and Media Key rating:** 500,000 actuations
- **Hot Key Functions:** Mail, Web/Home, Search, Back, Forward, My Favorites, My Favorites 1, My Favorites 2, My Favorites 3, My Favorites 4, My Favorites 5, Calculator, Equals, Open Parenthesis, Close Parenthesis, Back Arrow, and Forward Arrow
- **Media key functions:** Mute, Volume -, Volume +, Play/Pause
- **Enhanced Function key functions:** Help, Undo, Redo, New, Open, Close, Reply, Forward, Send, Spell, Save, Print
- **Maximum Character Entry Rate:** 1000 characters per minute (16.7 characters per second)
- **Compatibility:** WINDOWS 7, 8, 8.1, 10. **Limited compatibility: WINDOWS RT 8, RT 8.1, MAC OS 10.7, 10.8, 10.9, 10.10**
- **Interface:** USB
- **Operating Temperature:** 0°C to 35°C
- **Storage Temperature:** -40°C to +60°C
- **Operating Humidity:** <5% to 80% relative humidity (non-condensing)
- **Storage Humidity:** <5% to 65% relative humidity (non-condensing)
- **Certifications:** FCC, UL and cUL Listed Accessory, ICES-003, CE, EMC, GOST, TUV-T, VCCI, ACA/MED, BSMI, MIC, NOM, CB, WHQL
- **Warranty:** Manufacturer direct only. Please call 1-800-360-7561 to receive warranty.
- **Colour:** Black with silver trim

Usage Tips

- Caution should be exercised when using the Microsoft Natural Ergo Keyboard 4000 with a mouse placed on the right side of the keyboard. The rather significant width of this keyboard requires that users reach noticeably further to the right than many other full-size keyboards. For the majority of users this will result in "over-reaching" outside of the Comfort Zone.
[Learn More About the Risks Associated with Over-Reaching.](#)
- A common complaint about this keyboard is that activation of the spacebar on the Microsoft Natural Ergo Keyboard 4000 can be somewhat stiff or "sticky". If the spacebar is pressed at one edge, the resistance is noticeably higher than when pressing it in the middle. This can force users to exert significantly greater force than should be required in order to ensure that the spacebar activates. This is not a warranty related issue.
- The depth of the permanently affixed palm rest can potentially move the keyboard too far away from users of smaller build, forcing them to "reach forward" to access the keys. This can put unnecessary strain on the shoulders as the arms are no longer able to hang in a neutral position with the elbows below the shoulders.
- The detachable "lift" that is included with this keyboard creates a negative slope of 7°. While negative slope is generally considered a desirable feature this can be a problem because it elevates the front edge of the keyboard over 3" above the surface on which it is mounted. Because the front of the keyboard is now significantly elevated the edge of the keyboard palm rest may now come in contact with the wrists, creating a potential pinch point. The only ways to address this are by either elevating the chair to compensate for this increase in height or by lowering the keyboard tray (if used) to where it is sitting directly on the lap. However, each of these solutions creates a height differential between keyboard and mouse, a factor that should be considered when deciding whether this is a suitable keyboard.
- Unlike other "tenting" keyboards that have all the keys angled at the same degree, the Microsoft Natural Ergonomic Keyboard actually forces the hand to adopt an unnatural "backwards" bend. This is due to the fact that in order for the fingers to be properly positioned on the inclined keys at the middle of the keyboard as well as the "flat" keys to the outside of the keyboard the hand is effectively curved "backwards". Not all users may encounter issues with this but it is most likely that a percentage of them will experience a degree of discomfort - although they may not identify the underlying reason.

Models

For pricing, availability or to order this product, visit our [online store](#).

Model #	Description
B2M-00013	Natural Ergo Keyboard 4000, US English layout
B2M-00014	Natural Ergo Keyboard 4000, French Canadian layout (unilingual layout)

Accessories

Model #	Description
B2M-00013-RISER	Microsoft Natural Ergo Keyboard 4000 Riser Accessory, US English layout, black, USB.

If you have any questions about this or any other product, call us or [email us](#)