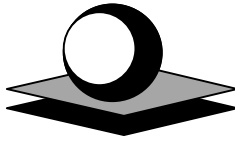


Matrix Machines
presents ...



a faster Computer Keyboard

The XPeRT Keyboard - Guide -

X P E R T Y U I O J
Q S D F N H A E L K
Z W C V B G M , . ?

(CIPO Patent Application Number: 2,408,521)

➤ ***Built for Speed!*** and easy transition from the Standard

In the 1870s, the Standard (Qwerty) keyboard was designed to be slow, to prevent the jamming of keys on mechanical typewriters. 130 years later, Qwerty remains a “speed trap”. Escape now, to the high speed ***XPeRT Keyboard.™***

This document expands on information found on the web-site. Go on-line to Purchase.

www.XPeRTkeyboard.com

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Product Overview - XPeRT Keyboard.™

X P E R T Y U I O J
Q S D F N H A E L K
Z W C V B G M , . ?

(CIPO Patent Application Number: 2,408,521)

Quick Test and Design Concepts:

Try typing: *“this is the end”*. It is one of the few accidentally optimized phrases on the Standard Qwerty keyboard. Now try typing *“as great as that”*. Slow as a 286! XPeRT optimizes typing by placing frequent letter sequences on opposite hands and where agile inner fingers are used.

Easy transition: Only two high frequency letters move on the XPeRT Keyboard: A + N. A second “E” key, the most frequent letter in English at 13%, is created for added convenience.

Performance Potential: Hunt style typists may expect a quick return to Qwerty typing speeds, followed by improvements of up to 80% or more, after only a few days of active use.

Installation ... 1, 2, 3.

1. Run XPeRT Setup (or Trial) to load the keyboard
2. Move Keycaps, or Apply Labels
3. Activate XPeRT, Using Windows Language Utilities

See page 4 for Layout and Keycap details and Key Label options.

See pages 6-8 for Activation details, according to Windows OS Type: Windows 95, 98, ME, 2000, NT or XP.

Purchasing:

Got to the BUY or TRY page at the web-site: www.XPeRTkeyboard.com, for direct purchasing links: "Buy XPeRT Keyboard".

OR

Download a **30 Day Free Trial** of the XPeRT Keyboard.

Performance Potential - *XPeRT Keyboard™*

Testimonial -

“After less than one day, I was able to return to Standard keyboard typing speeds. After 3 days of report writing, my typing speed increased from 22 wpm to over 36 wpm - 60% faster! Later, I reached 45 wpm, a 100% improvement” - Hunt & Peck keyboard user

That note summarizes the experience of one user with a “hunt and peck” approach to typing, which we prefer to call “hunt style” typing. As stated, no special training was undertaken to achieve this goal, i.e., no training in touch typing. Speed improved through normal use of the *XPeRT Keyboard™*, during the course of regular work assignments.

22 words per minute (wpm) may not sound very fast, but it is around 1.5 keys per second (kps). A list of rates illustrates the high number of keys struck per second in typing:

20 wpm =	1.5 kps	53 wpm =	4.0 kps
40 wpm =	3.0 kps	80 wpm =	6.0 kps

Moving from 20 wpm to 40 wpm could well be a reasonable goal, for a hunt style typist, using the *XPeRT Keyboard™*. Improving from 1.5 kps to 3.0 kps is quite an accomplishment.

The *XPeRT Keyboard™* offers the potential of dramatically increasing productivity.

A 50% improvement reduces 3 hours of typing to 2. If typing all day, a 100% speed increase cuts work time in half. **Imagine gaining from 1 to 4 hours a day in productivity!**

To test your typing speed, first create a benchmark on the old Qwerty keyboard. Choose a document to copy or type free form and type for ten minutes. Use the MS Word --> File --> Summary Info --> Statistics utility to get an automatic word count. Divide by 10 for wpm. Don't be shocked if it seems slow! Consider the number of keys per second and the room for improvement. Divide wpm by 13.3 to get approximate kps.

After two to three hours of typing on the XPeRT keyboard, take another speed test. You will likely be back to your old speed by then. Everything else is a bonus. After several days of continuous use, improvements of 80% in speed are not unusual for hunt style typists.

Try the XPeRT Keyboard using the FREE TRIAL offer at www.XPeRTkeyboard.com and reach average touch typing speeds of 40 wpm without any training.

Installation - XPeRT Keyboard.™

- **Keep your existing Keyboard Hardware!**
- **Installation Wizard for Software loading**

Three easy steps:

1. Use the XPeRT Setup Wizards to load XPeRT into your PC's Keyboard options
2. Move keycaps or apply labels when convenient
3. Activate the XPeRT Keyboard using the easy steps in the Control Panel Keyboard utilities, outlined in detail for each Windows OS version

Installation Topics:

- Moving Keycaps or using Key Labels page 5
- Software Installation Options page 6
- Activation: Windows Language Utilities, by OS Type page 7
- Restoring Standard / Qwerty Layouts page 9

Individual Key Changes are:

A to J, J to P, P to W,
W to X, X to Q, Q to A,
N to G, G to N, K to colon,
and colon to tilde (~)

The tilde (“~”) key is converted into a second “E” key, which moves to the K location. The tilde symbol can be accessed via symbol tables in most applications.

The result looks like this: The XPeRT Keyboard™

X P E R T Y U I O J
Q S D F N H A E L K
Z W C V B G M , . ?

(CIPO Patent Application Number: 2,408,521)

Physically Moving Keycaps

- Just pop keycaps off their anchor positions; they snap back on.
- This should be easy, using a pen or screwdriver - be gentle and check the snaps
- Move all keycaps to their new locations as listed above
- It may also assist to flag changed keys with a dot or other marker for a while

NB: Be gentle and the process should work well. It should be easy. Matrix Networks Ltd. takes no responsibility for keycaps or other physical damage related to keycap movement.

Key Label Options

Permanent XPeRT Key Labels

May be useful on PC keyboards, where key heights differ by row (but are not required). On Laptops, key heights are even and swapping keys is elegant.

Dual XPeRT / Qwerty Key Labels

As outlined in Software Installation notes, you can toggle back and forth between XPeRT and the old Qwerty layout easily and quickly, if other users need access to your machine.

Ordering Key Labels

High Quality Key Label sets are available on-line.

Details are provided at the BUY or TRY page of the website:

www.XPeRTkeyboard.com

Software Installation instructions follow

Software Installation for the *XPeRT Keyboard™*

Overview: Loading the XPeRT Keyboard Layout

- On purchase, you will receive an XPeRT Setup program by software download. Run *XPeRT Setup* and restart the PC, to place the XPeRT layout into the Keyboard Language options.
- Follow detailed steps below, according to your Windows OS type, to select and apply the XPeRT Keyboard, using the Control Panel keyboard language utilities.

Configuration Options:

- *Dual XPeRT and Qwerty Layout use and Quick Interchange*
- *Setup for using XPeRT most of the time*

Dual XPeRT and Qwerty Layout use and Quick Interchange

To use dual layouts, you must ADD a second language selection to the language page on your PC. Associate a language selection with the XPeRT layout, using properties or language drop down menus, as per the detailed instructions below. The result may be:

- English (US) US 101 (layout) (Qwerty)
- English (British) XPeRT (layout)

Choose one of these as the default and apply. Select left Alt + Shift as the means to switch between languages + layouts. Also, check the box for “Enable Taskbar Indicator”.

NB: The default layout and taskbar layout selection are decoupled. When you open a new application, the default takes effect. After an application is open, you can convert to another keyboard layout option, using the taskbar icon control (EN) or left Alt + Shift. You can assign different layouts to different applications which will be active on the PC.

Setup for using XPeRT most of the time

If you are planning to use the XPeRT keyboard layout primarily, there is no need to have two languages resident, as outlined above. In this case, just associate the current language selection (typically English (US) US 101) with the XPeRT layout, in the Properties list or in the Layout / Language list. The association English (US) XPeRT is thereby created. That’s it.

Keyboard Language utilities are described in detail on the next page for each Windows OS version. The instructions include the Add step, for dual XPeRT / Qwerty layout use. You can skip the Add step, if you want to use XPeRT most of the time, as described here.

Windows XP

1. Click on the Start button.
2. Click on Control Panel.
 - The Control Panel is directly accessible in the standard Start menu but it is inside Settings in the classic Start menu.
3. Click on “Date, Time, Language and Regional Options.”
4. Select the “Add other languages” task.
 - Or click on “Regional and Language Options” and select the Languages tab.
5. Click on the Details button in the “Text Services and Input Languages” frame.
6. Click on the Add button.
7. Select an English version in the drop-down list of languages, then
8. Select XPeRT Keyboard at the bottom of the drop-down list of keyboard layouts.
9. Click OK as many times as you are prompted to and then close “Date, Time, Language and Regional Options.”

Windows 2000

1. Double-click on My Computer and Control Panel.
2. Double-click on Regional Options and select the General tab.
3. Select the Input Locales tab and click on the Add button.
4. Select an English version in the drop-down list of languages and
5. Select XPeRT Keyboard at the bottom of the list of keyboard layouts. Click OK
6. Make sure the “Enable indicator on taskbar” option is checked, for quick interchange of installed layouts, and click OK to finish the installation.

Windows NT 4.0

1. Open My Computer, Control Panel, Keyboard and select the Language tab.
2. Click on the Add button, select an English version and click OK.
3. Click on the Properties button and select XPeRT Keyboard from the bottom of the list. Click OK.
4. Make sure that Left Alt + Shift is selected for Switch Languages and that “Enable indicator on taskbar” is checked, for quick interchange of installed layouts
5. Click OK to finish the installation.

Windows 98 / Me

1. Open My Computer, Control Panel, Keyboard and select the Language tab.
2. Click on the Add button, select an English version and click OK.
3. Click on the Properties button, select XPeRT Keyboard, (at the bottom of the list) and click OK.
4. Make sure that Left Alt + Shift is selected for Switch Languages and that “Enable indicator on taskbar” is checked, to allow interchange of layouts

Restoring Standard / Qwerty layouts

- Repeat the Control Panel steps listed above, as used in XPeRT layout activation
Select as the Default and Apply: “English - US 101” or another standard layout
Restart may be required on some versions of Windows XP.

To Uninstall the *XPeRT Keyboard™*

- Open the Control Panel and select the Keyboard -> Language utility, as per the detailed instructions by Windows OS type above.
- Select “XPeRT Keyboard”, click on the Remove button and click OK
- Open Add / Remove Programs, in the Control Panel. Click on the XPeRT Keyboard and Remove

Caution: Uninstalling the XPeRT Keyboard removes all XPeRT related material from your Program Files. If you plan to Re-Install XPeRT:

- Keep your copy of the XPeRT Setup program to re-load XPeRT.

Re-install the *XPeRT Keyboard™* at any time by running the **XPeRT Setup program**.

Product Documents

- Go to: Start --> Programs --> XPeRT Keyboard --> (files)
The Product Documents and an Uninstall program appear there.
Documents include:
 - XPeRT Readme
 - XPeRT Guide
 - Installation Instructions (recommended)
 - Product Reference Manual (this document)

Operating Systems

Windows:

The XPeRT Keyboard software has been built into Setup and Installer programs for these Windows OS types: Windows 95, 98, Me, NT, 2000, and XP (16-bit). Run *XPeRT Setup*.

UNIX, Linux, MacIntosh:

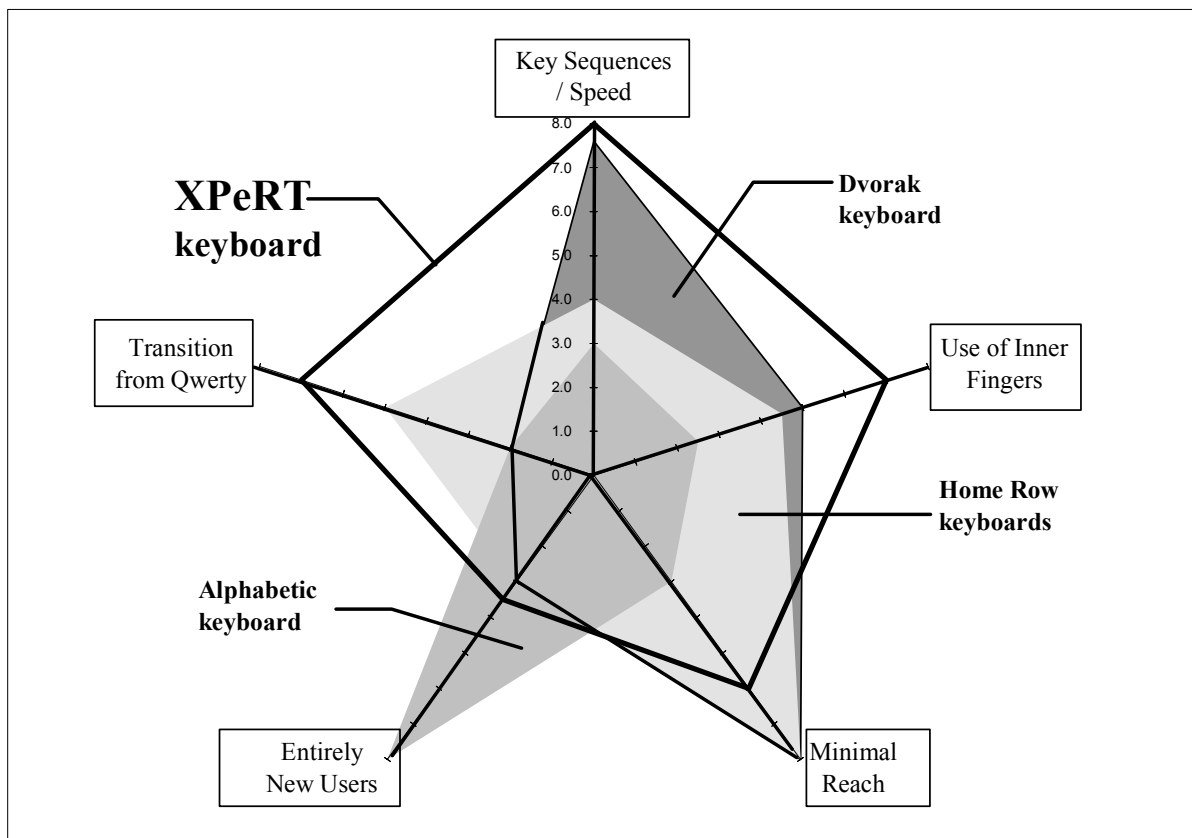
At present, pre-set keyboards and set-up programs have not been generated for these OS types. You can implement the XPeRT keyboard using a Keyboard Generator program. Caution: Some of these programs work on keystroke interception and are not as reliable as a keyboard file.

Use of the XPeRT keyboard layout requires payment of the license fee, as outlined herein, regardless of OS type or installation method. It is the XPeRT layout that is the subject of the patent application. This is a new invention and your support is appreciated.

Please go on-line and select the "**Buy XPeRT Keyboard**" box at www.XPeRTkeyboard.com to purchase the XPeRT layout license.

XPeRT Keyboard™ - Design Concepts

- Speed via Key Sequences
- Easy Transition from the Standard
- Usage of Agile Inner Fingers
- Reduction in Finger Reach
- New or Infrequent Users
- Reliability: Keycode Mapping
- DOS / Start-up Passwords



Attributes shown on the chart are discussed below.

***XPeRT Keyboard™* Design Concepts**

Speed via Key Sequences

Consider the two phrases: “this is the end” and “as great as that”. The first phrase is accidentally optimized on the Standard keyboard to allow key pairs to be struck by opposite hands; it is quite fast. The second phrase is awkward - most letters are struck by the left hand.

XPeRT improves on many awkward phrases, by optimizing key sequences on opposite hands, resulting in faster typing speeds. XPeRT is compared to other keyboard options in the table below in terms of keystrokes on opposite hands. XPeRT is slightly better than Dvorak and far exceeds Standard (Qwerty), Alphabetic and various Home Row oriented layouts, for this key sequencing factor. For many typists, the XPeRT design offers significant speed gains.

keyboard	opposite hand key pairs	same hand key pairs	percent opposite
• XPeRT	2199	444	83%
• Dvorak	2124	519	80%
• Alphabetic	1280 to 1437	1363 to 1206	48% to 54%
• Home Row	1191 to 1497	1452 to 1146	45% to 57%
• Standard	1330	1313	50%

The table uses 2643 or 80% of a total of 3320 key pair frequency values.

Easy Transition from the Standard / Qwerty Keyboard

Only two high frequency letters move in the XPeRT Keyboard: A & N. The most common letter (E at 13%) appears twice, making it easy to find and use. Transition from the Qwerty keyboard is relatively easy for hunt style typists. Touch typists will find transition slightly more difficult, but should also improve speed, if starting at common typing speeds, below 60 wpm.

Due to positive changes in A, N, and E, five low frequency keys are moved: Q, X, J, K and the semi-colon. The impact of these changes should be relatively small, for hunt style typists.

XPeRT Keyboard™ Design Concepts

Use of Agile Inner Fingers

The high frequency letters A, E, I, O, N, R, S, T are accessed mainly by dexterous inner fingers in the XPeRT layout, that is, the forefinger and middle finger. Conversely, home row oriented keyboards, including Dvorak, routinely place two high frequency keys at awkward small fingers locations (examples: A+S, O+S, A+O or A+R). In addition to being awkward, this slows down typing. Note that the small finger shares a tendon with the ring finger, so that it does not operate entirely independently and is less dexterous than other fingers.

The ***XPeRT Keyboard™*** places seven high frequency letters (and two “E”s) at agile inner finger locations and avoids awkward small fingers entirely, thereby increasing typing speed.

Home Row Oriented Keyboards / Minimizing Reach

On home row oriented keyboards, the most commonly used letters are placed on the middle row, to minimize reach and reduce finger strain, as well as increasing typing speed. Unfortunately, such keyboards move at least six high frequency letters (or more) from their Qwerty locations, creating an obstacle for experienced users. Various home row oriented keyboards have been defined, including the relatively well-known Dvorak keyboard (1936), which moves 24 keys away from Standard locations, making it difficult to learn.

The ***XPeRT Keyboard™*** does not focus on minimizing reach. If a user is most interested in reducing finger strain, then a home row oriented keyboard, like Dvorak, may be a good choice.

For users more interested in faster typing speeds and ease of transition from Qwerty, the ***XPeRT Keyboard™*** excels over all other keyboards in these attributes.

New or Infrequent Users

Alphabetic Keyboards have been defined, to make finding letters easier for entirely new or infrequent users. For users familiar with the Standard Qwerty keyboard, and those who type at moderate to higher speeds, XPeRT excels over Alphabetic layouts in all attributes. Alphabetic keyboards cause the interleaving of vowels and consonants, in a way that makes it difficult to optimize key sequences. While the XPeRT Keyboard is a random layout, transition to XPeRT is fairly easy for persons who are familiar with a Qwerty layout.

Other Design Considerations - *XPeRT Keyboard™*

High Reliability: Key Mapping only

The *XPeRT Keyboard™* includes no executable code; it is just a new mapping for the numbered keycodes in the system keyboard datafile. The datafiles were generated by a commercial keyboard generator product, for Windows 95, 98, Me, NT, 2000, and XP. While the simple key mapping is a highly reliable design approach, the user assumes responsibility for any consequences of product use, as for virtually all software programs sold commercially.

Start-up Password / DOS Prompt / COMMAND Prompt Modes

If you have a Windows 95 or 98 OS and use a lot of DOS for some reason (like encryption or other tasks), be aware that the Qwerty layout may remain in effect in the DOS Prompt window. This applies also to passwords used immediately on start-up. Check for XPJQNAKWG.

More recent Windows OS types (NT and onward) use a “COMMAND” Prompt rather than DOS Prompt, to access DOS-type commands. The XPeRT Keyboard remains in effect in that case. Note that the absence of a Tilde key has an impact on use of file names longer than 8 characters in Command mode.

Support / Feedback / Trial

Most questions you have should be answered by the information in this document (the XPeRT Guide), which appears on the web-site and is included with the XPeRT Setup software.

FAQs

Visit the Frequently Asked Questions page at the website for first line support.

Feedback

Feedback is welcome and may be sent to: xpertkeyboard@telus.net. Unfortunately, it may not be possible to respond to all contacts. Check the FAQ page to find answers to common questions raised in user feedback.

Free Trial / no Refunds

There is a 30 Day Free Trial of the *XPeRT Keyboard™* software, to determine if the layout is right for you. Due to the free trial, there are no refunds after purchase of the XPeRT Keyboard. Your understanding is appreciated.

Purchasing: - XPeRT Keyboard.™

- **Only US \$ 11⁰⁰ for real productivity gains!**
- **Quick download via the Net!**

This is a personal use license for all machines you use regularly:
at home and at work or a PC and a laptop.

Option 1: Secure Payment and Download from Share*It

- Secure Credit Card and other Payment Options
- DIRECT BUY LINKS ("Buy XPeRT Keyboard") at www.XPeRTkeyboard.com
- or
- Search for "*XPeRT Keyboard*" in the shareware catalog at the ShareIt web-site www.shareit.com

or

Option 2: Mail a Check and send an E-mail to request a Download

- Send an e-mail to matrixmail@telus.net, requesting instructions for direct purchasing by check and e-mail.

Permanent Key Labels or **Dual XPeRT / Qwerty Key Labels** (for easy taskbar icon Interchange between XPeRT and Qwerty) are available for the XPeRT Keyboard. Please see the Ordering information on the BUY or TRY page of the website:

www.xpertkeyboard.com

Prices are subject to change from time to time.