

M A T I A S C O R P O R A T I O N © 2 0 0 1

MATIAS

HALF KEYBOARD

A L L R I G H T S R E S E R V E D

PALM OS® HANDHELDS

Touch typing was invented over 100 years ago.

In all that time, there have been
no significant advances in how people type.

Until now.

CONTENTS

- 3 Getting Started**
- 9 How It Works**
 - 13 Typing a Space or Backspace Character
 - 15 Switching Keyboard Modes
 - 17 Typing a Capital Letter
 - 19 Typing a Special Symbol
 - 19 Typing More Special Symbols
 - 21 Typing an Accented Character
 - 22 Typing Menu Shortcuts
- 24 Tutorial for Two-Handed Typists**
- 26 Tips, Questions & Answers**
- 33 Help**
- 34 Legal Stuff**
- 36 Credits**

GETTING STARTED

- 4 Installing from a PC**
- 6 Installing from a Macintosh**

INSTALLING FROM A PC

Installing the Half Keyboard driver is very simple...

- ➊ Start up the Palm Desktop application.
- ➋ Insert the Half Keyboard Driver Disk.
- ➌ Click on the "Install" button. Click on the "Add..." button.
- ➍ Click on the "Look in:" drop-down menu and select "3 1/2 Floppy".
- ➎ When your computer is ready, you will see the file "halfkey.prc" in the dialog box. Select it and then click on the "Open" button.
- ➏ Click on the "Done" button. This adds the driver file and brings up the "Install Tool" window.
- ➐ Click on the "OK" button.
- ➑ Now put your Palm PDA in the cradle and click the HotSync button on the cradle. This will install the driver on your Palm.
- ➒ When the HotSync is complete, remove your Palm from the cradle and choose the "Half Keyboard" application. The "On" button should be selected. If it is not, click on it to select it.
- ➓ Your Palm is now ready to use the Half Keyboard. Just plug in the keyboard and type.

INSTALLING FROM A MACINTOSH

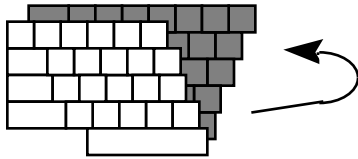
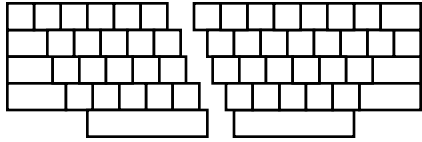
Installing the Half Keyboard driver is very simple...

- ➊ Start up the Palm Desktop application.
- ➋ From the "HotSync" menu, choose "Install Handheld Files".
- ➌ Click on the "Add To List" button.
- ➍ Insert the Half Keyboard Driver Disk.
- ➎ When your computer is ready, you will see the file "halfkey.prc" in the dialog box. Click the "Add File" button. This adds the driver file and returns you to the "Install Handheld Files" window.
- ➏ You should now see halfkey.prc listed in the window.
- ➐ Click the close window box.
- ➑ Now put your Palm PDA in the cradle and click the HotSync button on the cradle. This will install the driver on your Palm.
- ➒ When the HotSync is complete, remove your Palm from the cradle and choose the "Half Keyboard" application. The "On" button should be selected. If it is not, click on it to select it.
- ➓ Your Palm is now ready to use the Half Keyboard. Just plug in the keyboard and type.

HOW IT WORKS

- 13 Typing a Space or Backspace Character**
- 15 Switching Keyboard Modes**
- 17 Typing a Capital Letter**
- 19 Typing a Special Symbol**
- 19 Typing More Special Symbols**
- 21 Typing a Accented Characters**
- 22 Typing a Menu Shortcuts**

Regular desktop keyboards have two sides (left and right), one for each hand:



The Half Keyboard has only one side, for the left hand:



The other side of the keyboard is accessed using the space bar.

When you hold down the space bar, the Half Keyboard remaps to the layout of the right side of a regular keyboard:



TYPING A SPACE CHARACTER

To type a space, simply tap the space bar, just as you would on a normal keyboard.

TYPING A BACKSPACE

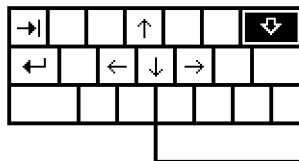
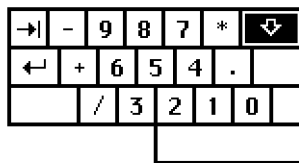
Space-Tab

To type a backspace, simply hold down the space bar and tap the Tab key.

TYPING A FORWARD DELETE

Ctrl-Space-Tab

To type a forward delete: tap the Ctrl key; hold down the space bar; then tap Tab.



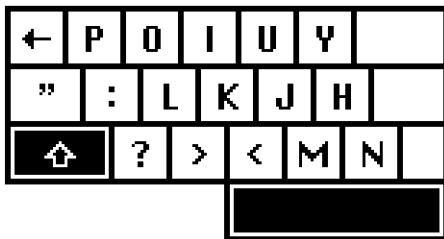
SWITCHING KEYBOARD MODES

The key labelled "A-Z 0-9 <->" is the Mode Switch Key. It allows you to remap the keyboard into a numeric keypad or cursor keys.

For the (default) letter mode, tap the mode switch key once.

For the number pad, tap the mode switch twice.

For scroll mode, tap mode switch 3 times.

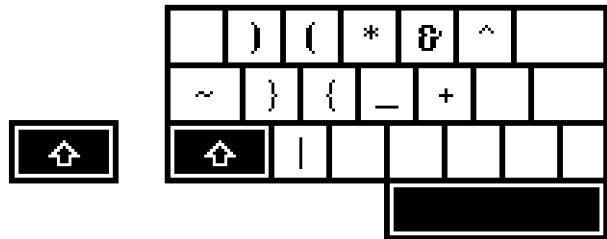
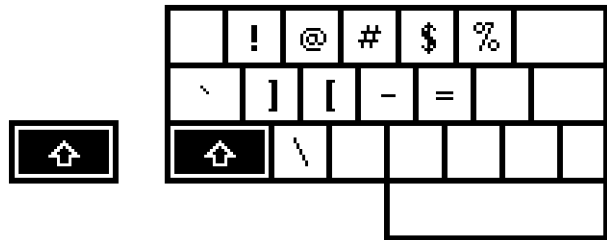


TYPING A CAPITAL LETTER

The Half Keyboard has a feature called Sticky Keys, which lets you use modifier keys without holding them down.

To type a capital-A, you don't need to hold down the Shift key. Simply tap the Shift key once and then tap the key you want capitalized.

Sticky Keys also works for the Ctrl and Alt keys.



TYPING A SPECIAL SYMBOL

The special symbols in the lower left corner of each key are typed by tapping the Shift key twice. Tap the Shift key twice and then tap the key with the desired symbol.

TYPING MORE SPECIAL SYMBOLS

More special symbols can be typed using the Alt key, in combination with other keys.

Note also that you don't need to physically hold down Alt. Simply tap it once, then tap the key to be modified.

| | | |
|---|-------|----------------|
| ¥ | Atl-y | Japanese Yen |
| £ | Atl-p | Pound Sterling |
| € | Atl-e | Euro |
| • | Atl-w | Bullet |
| ° | Atl-d | Degrees |

| | | |
|--------|----------------|----------------------|
| © | Atl-g | Copyright |
| ® | Atl-r | Registered Trademark |
| ™ | Atl-t | Trademark |
| ¶ | Atl-Return | Pilcrow |
| ¿ | Atl-? | Inverted ? |
| ¡ | Atl-! | Inverted ! |
| æ or Æ | Alt-a or Alt-A | AE Ligature |
| ß | Alt-b | Beta |
| ç or Ç | Atl-c or Alt-C | Cedilla |
| ø or Ø | Alt-o or Alt-O | Oslash |
| § | Atl-s | Section |
| μ | Atl-u | Micro |
| 1/2 | Atl-2 | Half |
| 3/4 | Atl-3 | Three Quarters |
| 1/4 | Atl-4 | One Quarter |
| ± | Atl-+ | Plus or Minus |
| ÷ | Atl-/ | Divide |

TYPING AN ACCENTED CHARACTER

First, type the letter to which you want to add an accent.

Next, tap the Alt key.

Finally, type the accent character.

| | | |
|---|-------|----------------------------|
| ' | Atl-' | Acute |
| ` | Atl-` | Grave |
| ^ | Atl-^ | Circumflex |
| ~ | Atl-~ | Tilde |
| ¨ | Atl-; | Umlaut |
| ° | Atl-o | Aring (with letter à only) |

For example, to type é, first type the e, then tap Alt, and then type ' (apostrophe).

TYPING MENU SHORTCUTS

The Ctrl key allows you to issue popular menu commands directly from your Half Keyboard.

Note also that you don't need to physically hold down Ctrl. Simply tap it once, and it will be active for the next key you type.

Cut ... Ctrl-x Copy ... Ctrl-c Paste ... Ctrl-v

Forward Delete:
Ctrl-Backspace

Move Cursor Back or Forward 1 Word:
Ctrl-Left or Ctrl-Right

Select Character Left or Right:
Shift-Left or Shift-Right

Select Word Left or Right:
Ctrl-Shift-Left or Ctrl-Shift-Right

Select Line Up or Down:
Shift-Up or Shift-Down

TUTORIAL FOR TWO-HANDED TYPISTS

LEFT HAND TYPING

This tutorial is written for a person who wishes to type with their left hand only. Generally, right-handed users should type using their left hand — this leaves the dominant hand free to use a mouse or stylus.

- ① Place your left hand on the keyboard, and type the following words. Try not to think about the other side of the keyboard.

safe wax serve gas case sew taste fax

- ② Hold down the Space bar with your thumb, and type the following words, remembering that the keyboard is now in right-side mode.

jump poll hop milk noun hum lump kin

- ③ Type the following words. Some **words** will require you to hold down the Space bar, while others will not.

safe poll care oil feed kin star hum

- ④ Type the following words. Some **letters** will require you to hold down the Space bar, while others will not. Try to concentrate on the left side of the keyboard. If the letter you want to type is not on the side you are thinking of (left), you know you have to hold down the Space bar to type it.

the that rock corporation perfume inform

TIPS, QUESTIONS & ANSWERS

SET THE KEYBOARD MODE FIRST

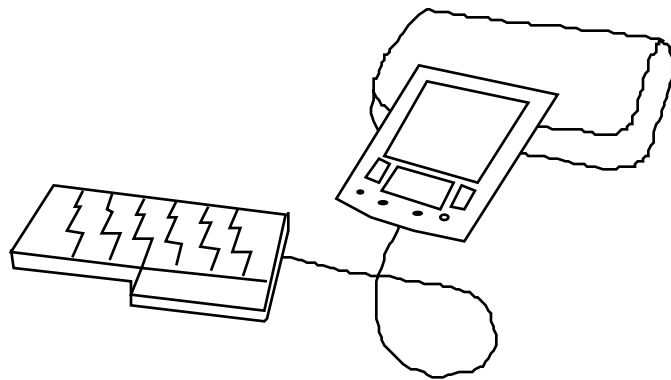
Before you start typing, tap the A-Z/0-9/<-> key to put the Half Keyboard in letter, number, or scroll mode, as desired.

HOTSYNC TURNS OFF THE KEYBOARD DRIVER

The Half Keyboard driver is switched off every time you do a HotSync. Simply turn it back on after the HotSync is complete.

WHY DOESN'T BEAMING WORK ANYMORE?

You will have to turn off the Half Keyboard driver (temporarily) to do a beam operation. You can turn the driver back on after you're done beaming.



USE THE CARRYING CASE AS A STAND

You can prop-up your Palm/Handspring for better screen viewing, by leaning it against the carrying case for your Half Keyboard.

WHY HAS MY HALF KEYBOARD STOPPED WORKING?

Is the cable properly attached to your Palm/Handspring?

Is the keyboard driver on? The Half Keyboard driver is switched off every time you do a HotSync. Simply turn it back on after the HotSync is complete.

Weak batteries can cause the Half Keyboard to stop working. Try either recharging or replacing the batteries.

WHERE IS THE CAPS LOCK KEY?

The Half Keyboard doesn't have a Caps Lock key. Instead, tapping the Shift key once will lock it for the next letter typed. This makes it very easy to capitalize a word, since you don't have to physically hold down the Shift key.

AVOIDING COMPUTER INJURIES

With increased computer use, computer-related injuries have increased as well. There are many reasons for this. We've listed a few below so that you can watch out for them, and avoid getting injured yourself.

A certain percentage of the population is physiologically predisposed to injury. Some people are just less sturdy than others. If you have small wrists, or long thin bones, you are more likely to sustain an injury, typing or otherwise, and therefore should be extra careful.

The psychology of computer use makes it easier to sustain an injury. In particular, it is very easy to lose track of time while using a computer. Combined with bad posture, injury becomes more likely. To counteract this, take periodic breaks from your work. Frequent short breaks (several an hour) help reduce fatigue and the risk of injury.

Bad work-area ergonomics is another major cause of computer-related injuries:

Chair Sit with your feet flat on the floor and the backs of your knees slightly higher than the seat of your chair. Your chair should support your lower back. Use a foot rest if necessary.

Monitor If possible, position your monitor at eye-level so you're not hunched-over to look at the screen. By way of example, users of notebook computers often experience neck pain, because their monitor height is not adjustable and the keyboard position is fixed, forcing the user into an awkward typing posture. Also, unlike a regular keyboard, the Half Keyboard does not force you to bring your hands together to type. That and its small size makes it easier to position comfortably on your desk.

Keyboard When typing, your shoulders should be relaxed. Your upper arm and forearm should form a right angle, with your wrist and hand in roughly a straight line. Use a soft touch on the keyboard and keep your hands and fingers relaxed. If desk height is too high, mount a keyboard tray underneath.

Work Area Organize your work area so that commonly used items are within easy reach, and don't require a lot of bending forward or stretching to reach them.

Also, periodically take a moment to think about whether you feel comfortable, and change position if necessary.

Finally, keep in mind that you are typing with only one hand. You are using one hand to do the job most people use two hands for. So, be extra careful. If you're sore, take a break; stretch a bit. If you're in pain, please see a doctor. Don't wait; go right away. Waiting could turn a minor injury into a more serious one.

The general rules are preventative:

1. Keep your wrists straight, elbows at right angles, and shoulders relaxed.

2. If possible, position your monitor at eye-level so you're not hunched-over looking at the screen.
3. Take frequent short rest breaks (several an hour).
4. Don't spend long periods of time in one position.
5. Notice when you're tense and consciously try to relax.
6. Occasionally rest your eyes. From time to time focus your eyes on a distant object, and blink often while you work.
7. Get plenty of sleep at night.

HELP

If you have questions, comments, or suggestions, you can contact us at:

Tel: (905) 265-8844
10:00 AM to 6:00 PM (Eastern Standard Time)

Email: help@halfkeyboard.com

Regular mail:

Matias Corporation
129 Rowntree Dairy Road #20
Vaughan, Ontario, L4L 6E1, Canada

LEGAL STUFF

LIMITED WARRANTY

Matias Corporation ("Matias") warrants to the original end user ("Customer") that this product will be free from defects in workmanship and materials, under normal use, for one year from the date of original purchase from Matias or its authorized reseller. Matias' sole obligation under this express warranty shall be (at Matias' option and expense) to repair or replace the product or part with a comparable product or part. All products or parts that are replaced become the property of Matias.

LIMITATION OF LIABILITY

To the full extent allowed by law, Matias excludes for itself and its suppliers any liability (whether based in contract or in tort, including negligence) for incidental, consequential, indirect, special, or punitive damages of any kind, or for loss of revenue or profits, loss of business, loss of information or data, or other financial loss arising out of or in connection with the sale, installation, maintenance, use, performance, failure, or interruption of this product, even if Matias or its authorized reseller has been advised of the possibility of such damages, and limits its liability to replacement, repair, or refund of the purchase price paid, at Matias' option. This disclaimer of liability for damages will not be affected if any remedy provided herein shall fail of its essential purpose.

SAFETY STATEMENT

Warning: Prolonged or improper use of a keyboard may result in discomfort or injury.

You should use the method of inputting data into your computer that is most comfortable for you.

This keyboard is not intended for extended or intensive use. If discomfort develops, consider changing your method of input or the manner in which you use the keyboard or stylus/mouse/trackball. If discomfort or pain persists, either decrease usage or consult a medical or ergonomics professional.

FCC STATEMENT

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This devices may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

TRADEMARKS AND PATENTS

Matias, the Matias logo, and Half Keyboard are trademarks of Matias Corporation. Other names may be trademarks and their owners are respectfully acknowledged. The Half Keyboard is patented in Canada (1,336,418), United States (5,288,158), Europe (489,792), Australia (647,750), and Japan (3,001,628).

CREDITS

User Interface Design and Documentation:
Edgar Matias

Electronics Design and Firmware Programming:
Guido Koerber @ Code Mercenaries

Keyboard Driver Programming:
Jeremy Radlow

Industrial Design and Manufacturing:
DS International
Brendan Ching, George Tsai, Alex Liu

Macromedia Flash Art and Programming:
Carlos Gouveia

Matias Corporation Management Team:
Edgar Matias
Steve McGowan
Vesna Vojnic

Advisors:
Jef Raskin
Tony Cutruzzola
Scott MacKenzie
Vic DiCiccio

Special thanks to Mike and Fran Clay, Arthur Marto, and the Transpacific Resources investors, without whom this product would not exist.

Extra special thanks to the people who helped me at the start, when I had nothing but a cool-sounding idea:

Bill Buxton, Scott MacKenzie, Steve McGowan, Jim McGowan, Abi Sellen, Paul Muter, Mike Ruicci, Alan Rosenthal, Beverly Harrison, Richard Pew, and all the members of the Input Research Group (IRG) and Dynamic Graphics Project (DGP) at the University of Toronto; Steve Perry of Sim & McBurney; the friends and family who made up the original Matias Corp. investors; Mark Rosteck, who wrote the Half-QWERTY PC demo; Sundeep Rathore, Mark Koyama, Vince Gagliardi, and Anthoula Constantinides.

Thanks to the brilliant journalists who had the foresight and keen eye to cover us early on:

Howard Green of CBC's Venture (now at ROBTV - Report on Business Television); David Pogue of Macworld Magazine; Joe Clark of the Village Voice; David Brittan of Technology Review; the clever animators at BitMagic.com; Ali Velshi of ROBTV; Michael Wachs of CEOcast; Roberta Pournelle and Ernest Lilley of Byte.com; Bob Sullivan of MSNBC;

Shawn King and Hilary Percy of The Mac Show; Dennis Sellers of MacCentral; Leander Kahney of Wired News.

Finally, thanks to:

Tony Cutruzzola, Vesna Vojnic, Guido Koerber, Jef Raskin, Betty Sgro, Vic DiCiccio, Ron Baecker, Ilona Posner, Rosanna Reid, Connie Putterman, David Howard of Fulcrum Partners, and Robert Grossman, former Vice President and General Manager of Toshiba Canada.

Congratulations folks! The dream has been realized. You all helped make it happen . . .

A handwritten signature in black ink, consisting of the letters 'EM' in a stylized, cursive font.

Edgar Matias, January, 2001