

The complete, unabridged, and comprehensive guide to everything you ever wanted to know about your new orbi**Touch** Keyless Keyboard ...but it's not a manual!

### **Contents**

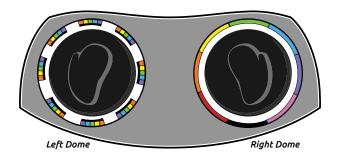
orbiTouch Keyless Keyboard Parts of the orbiTouch Dome Zones Left Dome Right Dome Indicator Lights	<b>2-4</b> 2 2 3 4 4	
<b>Using the Mouse</b> Enter mouse mode:  Open WordPad using the Mouse	<b>5-8</b> 5 6-8	
Character Guides  Modes (shift, cap, num, mouse)  QWERTY Layout  ABC Layout  Funtion and Arrow Keys	<b>8-11</b> 8 9 10 11	
Typing Letters		
Modes (in depth) Shift Mode Caps Lock Mode Num Lock Mode	13-17 13-14 14-15 16-17	
Typing Symbols  Symbols using the Shift Mode  Symbols using the Caps Lock Mode  Characters with no Mode Designation  Numbers with no Mode Designation  Funtion Keys with no Mode Designation	17-20 17-18 18 18-19 19 20	
Typing a Sentence		
Frequently asked questions		
Need more help?	28	

### Let's Get Started!

The orbiTouch was developed for those of us who have difficulty using a regular computer keyboard.

### Parts of the orbiTouch

The orbiTouch is comprised of the hardware as shown below, the cable for connecting the orbiTouch, and a Slide Guide defining the use of the letters, symbols, numbers, function keys and various modes.



The raised areas are called domes:

- The left-hand rests comfortably over the Left Dome.
- The right-hand rests comfortably over the Right Dome.

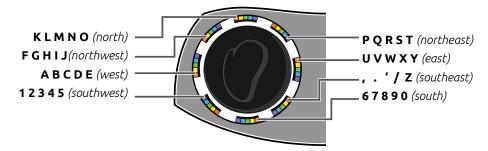
### **Dome Zones**

There are character zones (*Left Dome*) and colored zones (*Right Dome*).

- These are used to type the letters and symbols.
- They also serve as modes for using the Mouse, Num Lock, Caps Lock, and Shift Keys.

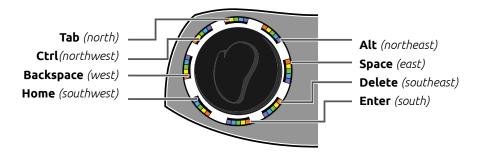
### Left Dome

Notice that the **Left Dome** is surrounded by clusters of colored letters, numbers, and symbols called character zones.



- Characters are arranged in alphabetical clusters beginning with A on the West side of the dome.
- The numbers and punctuation marks are located in the Southeast, South, and Southwest positions.

Note the functions located in the black areas over the cluster of numbers and letters.



Note the functions written on the white ring under the colors on the left dome:

• The **ABCDE** (west) area is the mouse left click.

• The **K L M N O** (north) area is the shift function.

• The **U V W X Y** (*east*) area is the mouse right click.

• The ,. ' / Z (southeast) area is the num lock.

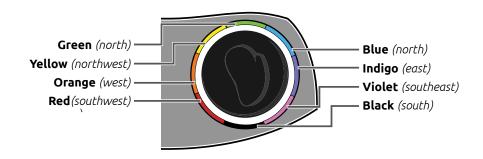
• The **6 7 8 9 0** (south) area is used to enter and exit the mouse mode.

• The **1 2 3 4 5** (southwest) area is the caps lock function.



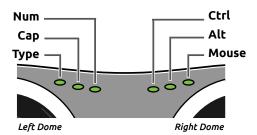
### **Right Dome**

The **Right Dome** is surrounded by a circle of colors called zones. (For further clarity, the colored zones of the domes have also been designated by position.)



### **Indicator Lights**

The indicator lights are located across the top of the orbiTouch between the domes.



- These will be lit when these functions are in use.
- They will be dark when the function is disabled.

### Plug-in the orbiTouch

Plug-in the orbiTouch into a USB port on your computer. The orbiTouch will boot *(turn on)* when the computer does. The orbiTouch requires no special software to be recognized by your computer.

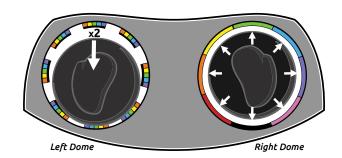
### Using the Mouse

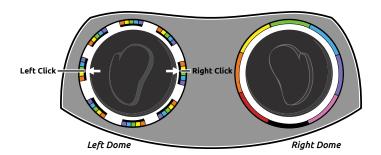
The Mouse is used to:

- Move to areas of the screen
- Open programs
- Navigate menus
- Execute functions.

### **Enter Mouse Mode:**

Locate the black zone in the South position of the left dome.





- Move (slide) the **Left Dome** South twice to enter or exit Mouse Mode, according to the diagram above.
  - o Be sure the mouse indicator at the top of the orbiTouch is lit.
  - o If not, try to slide the left dome twice more quickly.
- Now place your right hand on the **Right Dome** and move it around to see the
  mouse cursor move. The mouse cursor looks like a large arrow but will change
  appearance as it moves over text or other areas.
- A left click is achieved by sliding the *Left Dome* to the ABCDE zone (west).
   A right click is achieved by sliding the *Left Dome* to the UVWXY zone (east).

### Open WordPad using the Mouse

To practice typing letters and words, we will open the WordPad program.

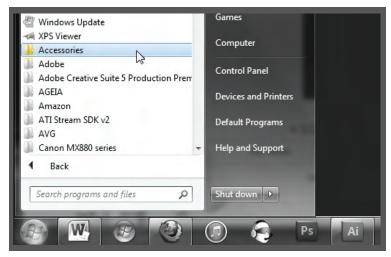
- Be sure that the mouse light at the top of the orbiTouch is lit.
- Move the mouse to the Start button on the lower left end of the task bar at the bottom of the screen.
  - o Notice the cursor becomes an arrow when it reaches the Start button.
  - o Left click the mouse by sliding the left dome to the orange zone once.



- A window opens that contains a menu of programs.
  - o Move the mouse pointer to All Programs; after a second, it will automatically bring up a menu of programs.

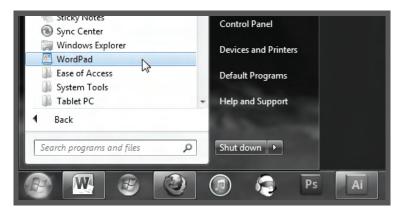


- We want to find a program called WordPad under Accessories.
  - o Move the cursor to Accessories and left click the mouse to open the file. (Slide the left dome to the ABCDE zone once.)

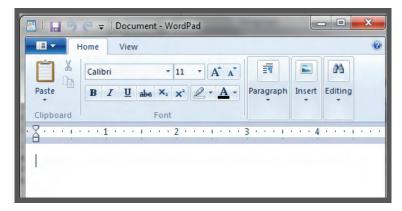


### Open WordPad using the Mouse continued...

- WordPad appears on the list of files in Accessories.
  - o Now move the mouse cursor to WordPad and left click once *(move the left dome to the ABCDE area once).*



o The WordPad screen opens.



- We will practice typing letters and words using WordPad.
  - o Look for the mouse cursor *(the blinking I)* on the first line of the blank screen.
  - o This is where the letters you type will be placed.
  - o If the cursor is missing, turn the mouse on *(slide the Left Dome South twice)*
  - o Place the mouse cursor anywhere on the screen and left click (move the *Left Dome* West *(to the ABCDE zone)* once.

Open WordPad using the Mouse continued...

Notice that the mouse light is lit on the top of your keyboard. Turn the mouse off by sliding the left dome South twice.

- When the Mouse light is off, the Text light is on.
- We are ready to type!

### **Character Guides**

The next pages will show character guides, which provide a pictorial dictionary of all the letters, symbols, numbers, and functions used by the orbiTouch. (*These guides are also included in the Slide Guide for your convenience.*)

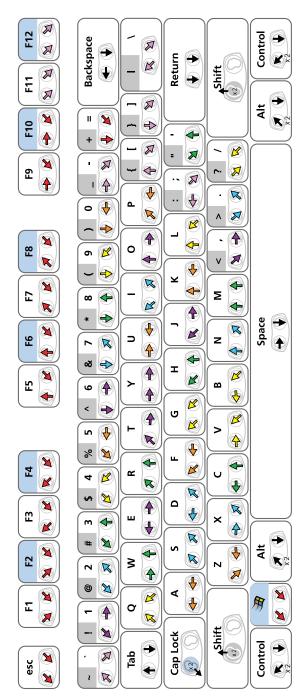
### Modes

- The Shift Mode is used to enable some of the symbols and for capitalizing letters
- The Caps Lock Mode for enabling some of the function keys and capitalizing letters.
- The Num Lock Mode for typing numbers
- The Mouse Mode is used to enable the mouse cursor.



## **QWERTY Layout**

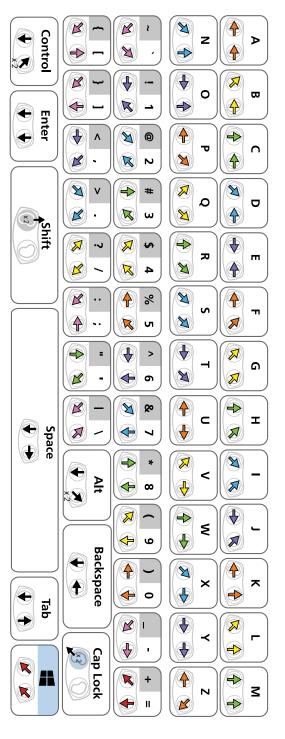
This guide shows the characters in classic QWERTY layout, or in other words, what a normal keyboard would look like.



orbTrouch, Blue Orb, and orbiTouch Keyless Keyboard are Trademarks of Blue Orb, Inc. Other names appearing on this document may be trademarks of their respective owners. Copyright 2017 Blue Orb, Inc. All rights reserved

### ABC Layout

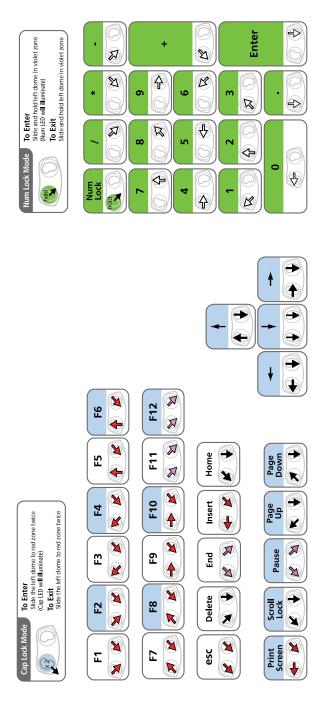
This guide shows the characters in alphabetical order.



orbiTouch. Blue Orb, and orbiTouch Keyess Keyboard are Trademarks of Blue Orb, Inc. Other names appearing on this document may be trademarks of their respective owners. Copyright, 2017 Blue Orb, Inc. All rights reserved

# **Funtion and Arrow Keys**

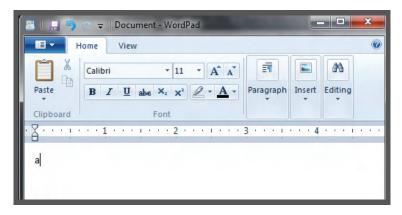
This guide shows the character instructions for function and arrow keys.



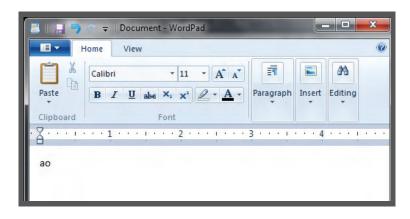
### **Typing Letters**

Using the character guides, we will now start to type letters using WordPad.

- Notice the arrows beneath the letters that show the directions for sliding the domes.
  - o The letter **a** shows orange arrows, so you will slide the **Left Dome** to the West (left, orange zone), and the **Right Dome** to the West (left, letters **a** to **e** cluster) according to the arrows.
  - o Type **a** on the WordPad screen.
  - o It should look like this:



- The letter o is Indigo so you will slide the Right Dome to the East (right, indigo position) and the Left Dome to the North (straight up, letters k through o group).
  - Can you see that the colored arrows show you left and right dome slide direction?
  - o Type the **o** next to the **a**



### Typing Letters continued...

Now type the alphabet from  $\mathbf{a}$  to  $\mathbf{z}$  from the character map, following the arrows.

- Practice typing letters until you are comfortable with them.
- Do you understand how to slide the domes in the direction of the arrows?
- Note: be sure to slide the dome to the center of the letter groups, not to the letter to be typed

### Modes

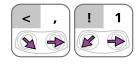
As mentioned previously, there are four modes.

- The Shift Mode
- The Caps Lock Mode
- The Mouse Mode
- The Num Lock Mode

### Shift Mode

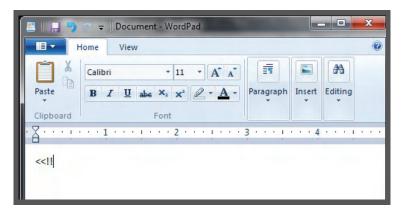


- The Shift Mode is used to capitalize letters, and to type symbols (e.g., punctuation marks).
- Shift Mode is used to print the Symbols and Numbers in the grey areas of the character guides.
- Typing in Shift Mode
  - o To enter Shift Mode, slide the left dome North twice.
  - o The Cap light at the top of the orbiTouch is lit.
  - o Type the character according to the color zones and the arrows.
  - o The Shift Mode exits after the symbol is typed, and the Cap light goes out.



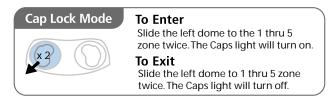
 Try to type the < and the ! in WordPad using the Shift Mode and the symbol and number shown above.

### Shift Mode continued...



• Remember: **Left Dome** north twice. Then move the arrows in the colors and direction shown on the Character Guide. Then Shift Mode exits (*turns off*).

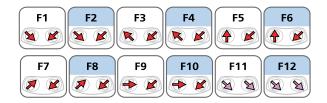
### Caps Lock Mode



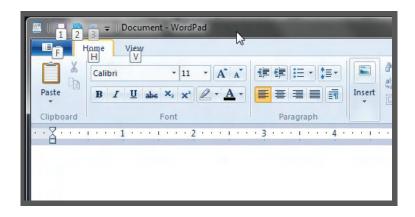
- Notice that the Caps Lock Mode box is blue.
- Caps Lock Mode is used to print the access functions in the blue areas of the character guides.
- Using Caps Lock Mode
  - o To enter Caps Lock Mode, move the *Left Dome* Southwest twice as shown above.
  - o The cap light on the top of the orbiTouch should be lit.
  - o Now if you type the letters again, they should all be capitalized.
  - o Use the Shift Mode to capitalize the first letter of a word.
  - o Use the Caps Lock Mode for many capital letters.

### Caps Lock Mode continued...

Caps Lock Mode is also used for Function Keys as shown below:

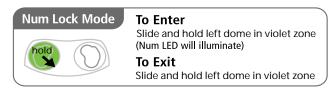


- Notice that every other of the functions is blue, indicating Caps Lock Mode needs to be activated to use it.
  - o To use the F10 function:
    - 1. Enter Caps Lock Mode by sliding the *Left Dome* Southwest twice.
    - 2. Make sure the 'Cap' light at the top of the orbiTouch is on.
    - 3. Then slide the domes in the direction of the red arrows.
    - 4. Note the letters that appear at the top of the screen.

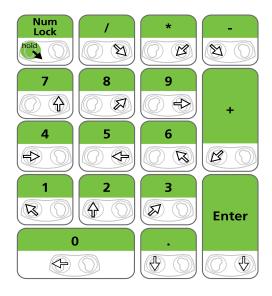


5. Letters appear as the F10 function is executed.

### Num Lock Mode

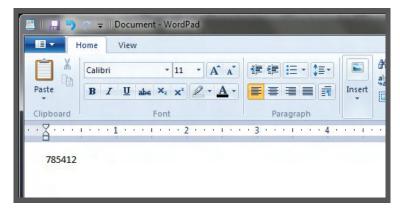


- The Num Lock Mode is used to type numbers as a keypad.
- To enter the Num Lock Mode, hold the **Left Dome** in the Southeast position for 2 seconds or until the Num light at the top of the keyboard is lit.



- Be sure to note which dome the guide refers to when typing in this mode. (For instance, / is created by sliding the *Right Dome* to the Southeast, whereas is created by sliding the *Left Dome* to the Southeast.)
- Using Num Lock Mode
  - o To type the numbers:
  - o Slide the **Left Dome** to the Southeast for a few seconds until the 'num' light at the top of the orbiTouch is lit.
  - o Move the **Right Dome** to type characters made by moving the **Right Dome** (try **7**, **8** and **5**).
  - o Move the **Left Dome** to type characters made by moving the **Left Dome** (try **4**, **1**, and **2**).

Num Lock Mode continued...



Good Job!

### **Typing Symbols**

The Symbols, Numbers, and Function Keys appear in 'Mode' colors when a mode is needed to print them:

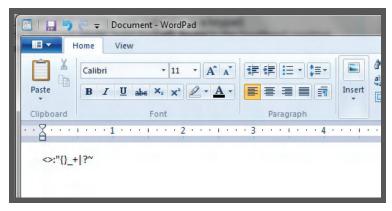
- **Grey Shift Mode** for the top row of symbols (<, >, : etc.), and the top row of symbols under the numbers section.
- **Blue Caps Lock Mode** for the navigation words or symbols (page up, page down, etc.) found in the second half of the symbols row and the top row of the function keys.

### Symbols using the Shift Mode

Use the Shift Mode for the Symbols in the grey areas.

- Think of this as 'capitalizing' these symbols.
  - o The pattern is:
    - + Enter Shift Mode (slide the left dome north twice)
    - + Cap indicator is lit (top of orbiTouch)
    - + Type the symbol following the direction of the arrows.
  - o These symbols begin with <.>,;, " etc.
  - o Practice this several times.

### Typing Symbols continued...



- Did you remember to slide the Left Dome twice before sliding the dome in the direction of the arrow? Remember, Shift Mode exits after the character is typed.
  - So it's slide north, slide north, slide in the direction of the arrows, then repeat for the next one.
  - o Try to do all the symbols from < to `, where the blue row begins.

### Symbols using the Caps Lock Mode

Use the Caps Lock Mode for the navigation keys in the blue areas, and function keys.

- Think of this as 'capitalizing' these symbols.
  - o The pattern is:
    - + Enter Shift Mode (slide the left dome Southwest twice)
    - + Cap indicator is lit (top of orbiTouch)
    - + Type the symbol following the direction of the arrows.
  - O Practice using the navigation and function keys several times

### Symbols with no Mode Designation

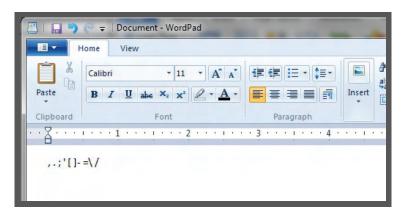
These symbols can be typed like the letters.

• Let's try the , (i.e., comma)



Symbols with no Mode Designation continued...

- We had to use the Shift Mode to type the **<** because it was in the grey zone.
- o Type the comma by moving the domes the same way you did for the letters.

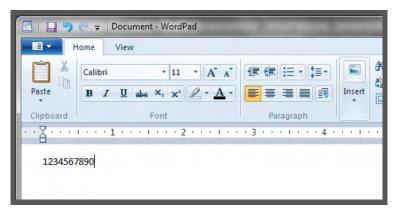


o Try some more if you can!

### Numbers with no Mode Designation

These numbers can also be typed like the letters.

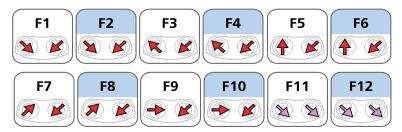
Type the numbers 1 through 0.



o Well done! Remember to type individual numbers using the numbers under the punctuation marks rather than using the Num Lock Mode.

### Function Keys with no Mode Designation

We've already practiced with Function Keys using the Caps Lock Mode. Now we'll use the set of function keys with no Mode designation. Again, these can be typed as you would a letter.



- Let's try using the F1 function.
- Eureka! You've opened Help.



- The F1 function opens Help in any program you are using. Very useful when you have questions.
- Try the other function keys for fun!

### Typing a Sentence

Let's put this all together by introducing yourself in type.

• Using a character guide in either the Un-Manual, or a Slide Guide, type the words 'My name is (*insert your name here*)!'

### Begin with the word 'My'

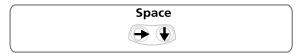
• Find the letters on the Character Guide.



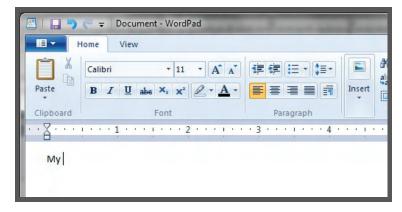
- Capitalize the letter M, it's the first word of a sentence.
  - o Move the left dome north twice.
  - o The Cap light should be on at the top of the keyboard.
  - o Slide the domes in the directions above for the M.
  - o Shift mode turns off, the cap light is off.
  - o Now type the y using just the arrows.

### Now we have to make a space before we write the next word.

• Locate the space key on either the QWERTY Layout or the ABC Layout.



Move the domes in the direction of the arrows.



We have a space!

### Now type the word 'name' by sliding the domes according to the arrows.



### Add a space.

### Type the word 'is' (choose the letters from either the QWERTY Layout or the ABC Layout).

### Add a space.

### Now type your name, remember to capitalize it!

- Move the left dome north twice.
- The Cap light should be on at the top of the keyboard.
- Slide the domes in the directions above for the first letter of your name.
- Shift mode turns off, the cap light is off.
- Now type the remaining letters using just the arrows.

### Add an exclamation point at the end!

Remember how to type the top row of symbols?



- o If the symbol is in the grey area, we must use Shift Mode to type it.
- o Slide the left dome north twice to enter shift mode.
- o The cap light at the top should be lit.
- o Move the domes as shown by the arrows.

### Congratulations, you know how to use the orbiTouch! Enjoy it.

### Frequently Asked Questions

**What is the orbiTouch Keyless Keyboard?** The orbiTouch is a patented computer keyboard and mouse that requires no finger or wrist motion to operate. It was developed for people who do not have the finger or hand dexterity to use a regular keyboard or mouse.

**How does the orbiTouch type?** The two domes slide to type a character. Each dome slides in one of 8 directions (forward, backward, left, right, and into the corner positions). Each dome has to slide into one of its eight positions to type a character. To type the letter 'a' for example, both domes would slide to the left.

Who is the orbiTouch designed for? Anyone who has hand or finger issues that keep them from using a regular keyboard and mouse. It's all about accessibility and if you have an issue with your fingers or hands, it may be the best alternative for you to keep typing. The orbiTouch was specifically designed for people who have little or no use of their fingers or hands. It is used by people who have arm or hand prostheses, limited hand and finger use due to injury, arthritis, carpal tunnel syndrome, spinal injury, burn, stroke, cerebral palsy and many other physical conditions. It is also being successfully used by people who are visually impaired, blind, have autism, or have traumatic brain injury.

What are the ergonomic benefits of the orbiTouch keyless keyboard? The orbiTouch eliminates finger and wrist motion. People with repetitive stress injuries like carpal tunnel syndrome find using the orbiTouch much more comfortable than using a regular keyboard. The orbiTouch dome size and shape also helps keep your hands comfortable while using it. And finally, the force required to move the dome, and the distance it moves, has been researched to provide optimum comfort while maintaining optimal typing speed. The force required to move the domes can be changed at the factory to accommodate anyone's special needs.

What types of disabilities does the orbiTouch accommodate? People who have an arm or hand prostheses, limited hand and finger use due to injury, arthritis, carpal tunnel syndrome, spinal injury, burn, stroke, cerebral palsy and many other physical conditions. It is also successfully used by people who are visually impaired, blind, have autism, or have traumatic brain injury have all successfully used the orbiTouch.

What type of research has been done and is available on the orbiTouch? A complete doctoral dissertation was completed on the orbiTouch, several research papers on dome force, dome motion, character layout around the rings, typing performance, learning curve and many more. A library of the research papers and other related research papers can be found on our website www.orbitouch.com.

What group of people have had the greatest success with it and why? All groups have had some level of success in using the orbiTouch. The group that has had the greatest success, however, is perhaps children and young adults with autism. They learn to use the orbiTouch very quickly and have had some of the fastest typing speeds ever recorded on the orbiTouch.

**Can I change the character layout?** Yes, through your computer's control panel. The orbiTouch sends the same typing commands as any other keyboard and mouse connected to your computer. As such, anything you can change using a regular keyboard or mouse on your PC, you can change with using the orbiTouch. These include things like key repeat rate, mouse cursor speed, keyboard layout (changing the alphabet), etc.

Will the orbiTouch cause damage to other parts of the arm given that it eliminates finger motion and wrist motion? Extensive research has lead to the design of the orbiTouch Keyless Keyboard. Each orbiTouch dome moves 7 millimeters from their center position. This distance is about the same that most typists move their hands in typing on a regular keyboard. As such, the biomechanical requirements in the upper arm in using a regular QWERTY keyboard are similar to those when typing with the orbiTouch.

**Does the orbiTouch prevent or eliminate carpal tunnel syndrome?** While we are still collecting data on whether the orbiTouch eliminates carpal tunnel syndrome (CTS), our research data does indicate that it can help prevent or reduce the repetitive motions that are suspect in causing CTS. The unique design of the orbiTouch keyless keyboard eliminates the finger and wrist motions that most often contribute to and aggravate CTS symptoms.

**How do the domes move? How far?** They slide into 8 positions. They move 7 mm which is about the thickness of a pencil.

**How many "keys" does it have?** 128. That is at least as many as a standard keyboard.

How do I switch back and forth between keyboard and mouse mode? Simply slide the left dome down twice.

**How does the mouse work?** First, slide the left dome down twice to enter "Mouse Mode." Once in mouse mode, the right dome controls cursor movement, and the left dome does the mouse "clicks." The "clicks" are performed by sliding the left dome to the left for "left click," and right for "right click".

Can a left-handed person mouse w/ the LEFT dome controlling cursor with RIGHT dome clicking? This would require the development of a customized unit. If you would like to discuss this further, please send us an e-mail to: support@orbitouch.com

**Does the orbiTouch do all of the things a regular keyboard does?** Yes, and then some. The orbiTouch has a 128 character/function capability (8 positions on the left dome x 8 positions on the right dome x 2 movements on the left dome). There is also a built-in mouse. Simply slide the left dome down twice to enter mouse mode; the right dome is used to move the cursor, the left dome to perform left and right clicks.

**Does the mouse action have a double-click?** Yes. While you're in mouse mode, sliding the left dome once in the left direction produces a "single click." Sliding this dome twice in the left direction produces a "double click."

**How do I control the mouse and clicking speed?** Through your operating system's control panel. See your Windows or Mac help menu for details on how to do this.

**Can I play video games with the orbiTouch?** Yes. Because the orbiTouch performs all of the functions of a keyboard and mouse, it can be used to play games.

How do I type special characters (e.g., Ö, Ä, Å) with the orbiTouch? The current model of the orbiTouch is designed to generate all of the letters, numbers, special characters, and control keys found on a traditional US-English keyboard. The slide guide illustrates the characters generated by specific dome movements when the orbiTouch is used with Windows in US-English mode. In some cases, use with Windows set for other language implementations is possible with only a change in the dome-movement-character correspondence. For some languages, additional characters will need to be defined. Prior to announcing general availability in any country, we will have tested the requirements of the predominant languages used in the country. In general, if you can produce the characters used by your language with a US-English traditional keyboard, then you will be able to do so with the current orbiTouch by re-labeling your slide guide.

**How do I use the function keys?** Using a function key is identical to typing any other character -- they are typed through the positioning of the two domes. Refer to the slide guide for the motions required for each function key.

When using Windows, how do I press CRTL, ALT, DEL or other multi-key strokes? You could type the character sequence CTRL-ALT-DEL-ALT-CTRL. This turns on CTRL and ALT modes, puts in the DEL character, and then turns off CTRL and ALT modes.

**Does the orbiTouch work with all versions of Windows?** The orbiTouch has been tested extensively in all versions of Microsoft Windows and works well with them all.

Does the orbiTouch work with the Mac? Yes.

**Does the orbiTouch work on a tablet PC, Android tablet, or iPad?** Yes, you may need to get a USB cable depending on the type of tablet you have. Please email support@orbiTouch.com with specific questions. We are happy to help you find the right cable.

What are some of the Windows or Mac system settings I can use to enhance or make my orbiTouch experience better? Word completion, standard keyboard settings like key repeat, etc. These features are free and are already installed on your computer if you are using more recent versions of your operating system.

### Here are the main ones:

**Sticky keys:** This feature was designed for people who have difficulty holding down more than one key at a time i.e. if you can only use one hand to type. Once this function is activated pressing one key only can activate the SHIFT, CTRL, ALT, or Windows logo keys.

**Filter keys:** This function can help you if you have difficulty controlling the movements of your hands and fingers. It adjusts the keyboard response so that inadvertently repeated keystrokes are ignored. If you activate it, brief or repeated keystrokes will not be taken into consideration. You can also slow the rate at which a key repeats when you hold it down.

**Toggle keys:** When this feature is turned on, you will hear tones when pressing on the locking keys (CAPS LOCK, NUM LOCK, and SCROLL LOCK). A high sound is played when the keys are switched on and a low sound is played when they are switched off. This feature is helpful to someone with visual impairments.

**An on-screen keyboard is also available:** This may be helpful for you if typing on a regular keyboard is too difficult. It is a virtual keyboard displayed on the computer screen. It allows you to type by using a pointing device.

**A magnifier:** This can be used if you have difficulty reading small characters because of decreased vision. A second assistive device for people with low vision is a narrator which can read out load what is displayed on the computer screen. It is designed to work with many programs including: Notepad, WordPad, Control Panel programs, Internet Explorer, the Windows desktop, and some parts of Windows Setup.

**How easy is it to learn to use the orbiTouch?** What is the learning curve? It is very easy to use. The basic concepts are mastered in minutes. Most typists can type proficiently after using the orbiTouch keyless keyboard about 3 1/2 hours--45 minutes practice a day for 5 days.

How many words per minute can be typed, on average, with the orbiTouch? Average typing speeds are usually in the range of 30 to 40 words per minute--about the average for a regular keyboard.

How long does it take to get up to an average typing speed of 30 words per minute with the orbiTouch? Somewhere around 10 to 15 hours. This of course, depends on how often you practice, your physical abilities, and whether or not you use our training software (included with the orbiTouch).

**What is the best way to learn to type with the orbiTouch?** By using the typing software that comes with the orbiTouch and available on-line. The software takes you through a series of typing lessons and games to help you learn and get to your maximum typing speed quickly.

**Does the order in which the domes move matter?** Domes can be moved in either order (right-hand first or left-hand first) or simultaneously. It's the position of the domes in their respective eight positions that type the character. The domes do not have to be re-centered to type subsequent characters. Holding the left dome in one of its positions allows the typist to type 8 characters using the right dome. If one or more of the characters you wish to type are in that left hand position, you can hold the dome there to type the characters.

**How much force does it take to slide the domes?** 7 N of force which is a little higher than the force required to press a key on a regular keyboard and 68% lower than the requirements set by the US Federal Government's Section 508 accessibility regulations.

**Do the domes have to re-center after each character is typed?** No. Only one dome needs to be re-centered to type. So, for example, if you moved and held the left dome in its red color position, you can move the right dome to any of the red characters, re-centering the right dome after each character is typed.

**What is the orbiTouch product guarantee?** If you are the original owner and it breaks, we will send you a new one. Please visit the orbiTouch.com website for further details