

*TetraMouse*

MODEL TMXA2

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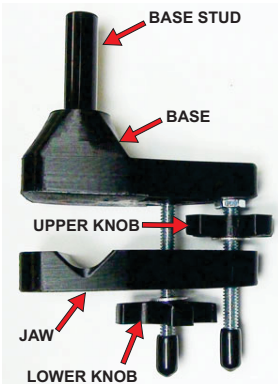
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# SET UP

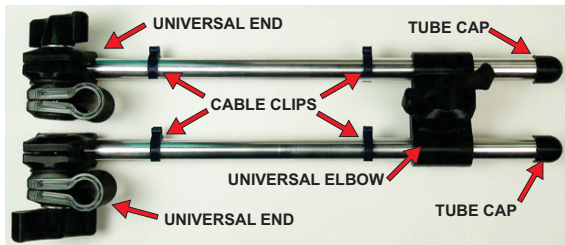
## ARTICULATED ARM MOUNTING SYSTEM

If you ordered TetraMouse Mounting System with your TetraMouse, follow these instructions for mounting. If you will be using another mounting system please refer to the documentation for that system. The size 1/4"-20tpi threaded stud that protrudes from the back of the TetraMouse is used for mounting. If using the TetraMouse Mounting System, the Mouse Mounting Stud is tightened firmly onto the threaded stud on the TetraMouse.

The Base Clamp mounts to a flat surface or a tubular object. Either Universal End of the Articulated Arm is then attached to the Base Stud. The TetraMouse is then attached to the other Universal End of the Articulated Arm using the Mouse Mounting Stud.



**BASE CLAMP**



**ARTICULATED ARM**



**TETRAMOUSE**

## MOUNTING THE TETRAMOUSE

These instructions use the terminology for the various parts as shown in the illustrations on the previous page. These terms are capitalized in the following instructions. “Up” and “Down” references are relative to the image of the Base Clamp on the previous page.

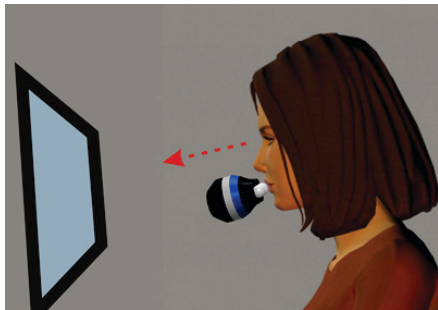
The Base Clamp is mounted to a desktop or tubular frame of bed, wheelchair, etc., using the Lower Knob and Upper Knob to tighten and hold the clamp securely. To mount to a desktop or tubular object, first turn the Upper Knob until it is loosely against the nut at the bottom of the Clamp Base, then turn the Lower Knob until the Jaw can be moved down far enough to accommodate the thickness of the mounting surface or diameter of the tubular object. Next, turn the Lower Knob back up to bring the Jaw up against the mounting surface or tubular object and tighten it firmly. Then turn the Upper Knob to bring it down onto the top of the Jaw and tighten it firmly. As you tighten the Upper Knob more it moves the Jaw like a lever, clamping harder toward the surface or tubular object and directing more clamping force toward the open end of the clamp.

Re-tighten the clamp after 24 hours from the initial installation by tightening the Lower Knob first, then the Upper Knob second.

Loosen the Universal Ends and Universal Elbow to allow mounting the arm to the Base Stud on one end, and mounting the TetraMouse with the Mouse Mounting Stud on the other end. Tighten the Universal Ends and Universal Elbow joints enough to hold the arm in position, then adjust the position of the arm and the TetraMouse to the desired working position and tighten all joints firmly.

## POSITIONING THE TETRAMOUSE

Loosen the knobs on the Universal Ends and Universal Elbow on the Articulated Arm just enough to allow repositioning of the TetraMouse, but tight enough to stay where it is put. When the TetraMouse is in the desired position and the user finds it comfortable to operate without straining or reaching, the joints may be tightened more firmly to better hold it in position.



The TetraMouse should ideally be positioned as in the above illustration (mounting arm omitted for clarity). The user should be in a comfortable position looking straight ahead at the computer screen. The TetraMouse is then brought into position so that the lips are in contact with the knobs on the joysticks. Some users prefer to use the area between the chin and lower lip to move the joysticks.

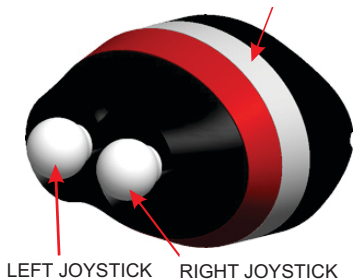
It is important that the TetraMouse be brought into position without the user having to "reach" for it. If the user has to change position or strain to reach the TetraMouse, he or she will be more likely to experience fatigue or muscle pain after a period of use.

**CAUTION:** Prolonged use of the TetraMouse, as with any mouse, can result in muscle pain, fatigue or even repetitive stress injury. The user should take periodic breaks, as is recommended for all mice and keyboards.

# FEATURES

## OVERVIEW OF THE TETRAMOUSE

BLUE, GREEN, YELLOW AND RED INDICATOR LIGHTS SHINE THROUGH THIS SEMI-TRANSPARENT BAND



The four indicator lights show the various states and settings of the TetraMouse while it operates in Mouse Mode or Program Mode. In Mouse Mode the color coded indicators show which speed channel is active. In Program Mode they give various indications depending on the operation conducted.

The left and right joysticks allow the user to move the mouse pointer, perform clicking, drag and drop, scrolling, repeat scrolling, and selecting the pointer speeds.

The TetraMouse connects to the computer using any available USB port. You may connect one or more other mice to the computer if desired (recommended if a helper or other person will also be using the same computer).

The 1/4"-20 male threaded stud protrudes from the center of the back of the unit to provide for mounting the TetraMouse.



REAR VIEW



## THE LEFT JOYSTICK

The left joystick is used to perform all eight mouse button clicks, left, right and middle button click and hold (drag and drop), scrolling, calibration and to enter Program Mode.














Use movements as shown on the right to perform the various functions. Left, right and middle button clicks, and entering Speed/Program Mode are simple straight movements. Buttons 4 through 8, click & holds and scrolls use combination moves (or gestures). As an example of a combination move gesture, a left click & hold is performed by pushing the left joystick left, then while still holding to the left, pull the joystick down, then release. With a little practice, this can be done in one smooth, arcing movement, first pushing the joystick to the left, then down, then release.

The blue indicator light blinks while a left click & hold is active. The red indicator light blinks while a right click & hold is active. Release a left click & hold with a normal left click. Release a right click & hold with a normal right click. A context menu may pop up onscreen when releasing a right click & hold. The context menu may be acted upon with a left click on any of the menu options, or dismissed with a left click outside of the menu.

In Program Mode, you can select a Speed Channel, select the number of active mouse buttons (5 or 8), select the pointer mode, or return to Mouse Mode without making any changes. See the Programming section for complete details.

### **JOYSTICK CALIBRATION** Push left stick down, then left, then up

Use the calibration function if the mouse pointer drifts when the right joystick is not being moved. When calibrating, be sure the right joystick is centered and not being touched. The indicators display a scanning pattern, left to right, then right to left when the calibration function is performed.

-  **LEFT CLICK**  
Push left, then release
-  **RIGHT CLICK**  
Push right, then release
-  **MIDDLE CLICK**  
Push down, then release
-  **BUTTON 4 CLICK**  
Push up, then left & release
-  **BUTTON 5 CLICK**  
Push up, then right & release
-  **BUTTON 6 CLICK**  
Push down, then left & release
-  **BUTTON 7 CLICK**  
Down, then right & release
-  **BUTTON 8 CLICK**  
Push down, then right, then up & release
-  **LEFT CLICK & HOLD**  
Push left, then down & release
-  **RIGHT CLICK & HOLD**  
Push right, then down & release
-  **SCROLL DOWN**  
Left then up - hold to repeat
-  **SCROLL UP**  
Right then up - hold to repeat
-  **SPEED / PROGRAM**  
(See Programming details)  
Push up to select Program Mode

## **THE RIGHT JOYSTICK**

Push the right joystick knob in any direction to move the mouse pointer on the computer monitor in the corresponding direction. The farther you push the knob from its center position, the faster the pointer moves. The pointer stops moving when you release the knob to its center position.

The mouse pointer moves at speeds relative to the currently selected Speed Channel. The mouse settings in the computer's operating system globally affect the pointer speed also. It is recommended that the operating system's mouse pointer movement speed setting be set to the middle of its range.

## **PROGRAMMING PROGRAMMING OVERVIEW**

The left and right joysticks perform different functions when the TetraMouse is in Program Mode. When the TetraMouse is powered up, it starts in Mouse Mode. To enter Program Mode, the user pushes the left joystick up, then releases the joystick. All four indicators blink once, then all indicators go off to indicate the change to Program Mode.

In Program Mode, the user can select any of four Speed Channels, select 8-way or analog pointer mode, 5- or 8-button modes, or return to Mouse Mode without making any changes. Details of these selections follow this overview.

The speed channel, pointer mode and button mode settings are retained in memory in the TetraMouse when it is disconnected or if the computer is turned off, and the settings are restored when powered up again.

## SPEED CHANNEL SELECTION

The TetraMouse has four Speed Channels that can be selected by the user. These Speed Channels are named “Blue”, “Green”, “Yellow” and “Red” and, when selected, they are indicated by the corresponding colored light indicator.

Each Speed Channel limits the speed the mouse pointer moves across the computer screen when the right joystick is moved. The channels are arranged with the Blue Channel being extra-slow speed, the Green Channel is faster, the Yellow Channel faster still, and the Red Channel is the fastest.

On initial power-up, the TetraMouse starts with the Green Speed Channel selected, as indicated by the green light. On subsequent power-ups, the TetraMouse remembers its previous setting and starts in the channel last selected by the user.

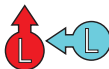
To select a different Speed Channel, first push the left joystick up. All four indicator lights blink once to indicate the change to Program Mode. Then push the left joystick in one of the four directions, down, left, right or up to select the desired Speed Channel as shown to the right on this page.

### BLUE CHANNEL



Push the left joystick up to enter Program Mode, then push down to select the Blue Speed Channel.

### GREEN CHANNEL



Push the left joystick up to enter Program Mode, then push left to select the Green Speed Channel.

### YELLOW CHANNEL



Push the left joystick up to enter Program Mode, then push right to select the Yellow Speed Channel.


### RED CHANNEL





Push the left joystick up to enter Program Mode, then then push up to select the Red Speed Channel.


After selecting a Speed Channel, the corresponding color-coded channel indicator turns on and the TetraMouse returns to Mouse Mode. The pointer will now move at the speed limit for the selected Speed Channel when the right joystick is moved.

## POINTER AND BUTTON MODE CONTROL


 Push the left joystick up to enter program mode, then push the right joystick left to toggle between 8-way and analog pointer movement modes. When 8-way mode is entered the indicators scan right to left, then left to right, then blink 2 times, then scan left and right again, then the TetraMouse returns to Mouse Mode with the current speed channel selected. When analog mode is selected the indicators scan slowly pulsating right and left, then blink and scan rapidly, then the TetraMouse returns to Mouse Mode.

 Push the left joystick up to enter program mode, then push the right joystick down to enable **5-button mode**. The indicators scan left to right, then blink 5 times, then scan back and forth and the TetraMouse returns to Mouse Mode. Left, right and middle buttons and buttons 4 and 5 are enabled. Buttons 6, 7 and 8 are disabled. Middle button click and hold is enabled.

 Push the left joystick up to enter program mode, then push the right joystick right to enable **8-button mode**. The indicators scan left to right, then blink 8 times, then scan back and forth and the TetraMouse returns to Mouse Mode. Left, right and middle buttons and buttons 4 through 8 are enabled. Middle button click and hold is disabled.

 Push the left joystick up to enter program mode, then push the right joystick up to return to Mouse Mode without making any changes.

## MIDDLE BUTTON CLICK AND HOLD

 When the TetraMouse is in 5-button mode, the “down, then right” movement for the disabled button 7 function, instead performs a middle button click and hold function. When active, the yellow indicator blinks. A normal middle (down) click releases the hold. This function is implemented to provide a third button capable of being held while providing the user with an indication of the held state. Various possibilities for remapping this function could prove handy for custom controls in computer games and other programs.

# **SOFTWARE OPTIONS**

## **BUTTON REMAPPING IN WINDOWS**

The TetraMouse can output 8 mouse button signals and scroll wheel up and down signals, however, the Windows mouse driver is only capable of handling 5 buttons and a scroll wheel. Therefore, most programs running in Windows are not capable of using more than 5 buttons. A program called X-Mouse Button Control is available from Highresolution Enterprises on their website at [www.highrez.co.uk](http://www.highrez.co.uk). X-Mouse Button Control is “donation ware”. If you decide to use it, please consider making a donation to the author at the [highrez.co.uk](http://highrez.co.uk) website. X-Mouse Button Control, when used with the TetraMouse, provides the equivalent of 7 usable mouse buttons while retaining scrolling functionality. The first 5 buttons (left, right, middle, button 4 and button 5) can be remapped to perform various keystroke shortcuts and functions. Since the left, right and middle buttons provide the most often used mouse button functions, they are best left to operate normally without being remapped. The middle button, when activated in most applications with scrollbars, will change the mouse pointer to a scroll cursor, and scrolling may be performed by moving the right joystick. This makes the scroll outputs from the TetraMouse available to be remapped in X-Mouse Button Control just like the other mouse buttons, giving the user the equivalent of 7 button functions. Unfortunately, no generic mouse driver yet exists (for Windows) that can use buttons 6, 7 and 8 from any mouse, including the TetraMouse. The X-Mouse Button Control program is recommended for Windows users with the TetraMouse. See the [highrez.co.uk](http://highrez.co.uk) website for more information about how X-Mouse Button Control works.

## **BUTTON REMAPPING ON A MAC**

On Mac computers, a shareware program called USB Overdrive allows the user to remap all 8 of the TetraMouse button functions and scroll up and scroll down functions in order to perform various keystrokes, shortcuts and functions. The trial version of USB Overdrive may be downloaded from [www.usboverdrive.com](http://www.usboverdrive.com). There is a very minor “nag” at program start-up urging you to buy this software. USB Overdrive’s trial version continues to work indefinitely if you don’t buy it, but the price is very low, so if you use this program please consider paying for it.

Using USB Overdrive, the user can re-map up to 10 functions from the TetraMouse. Please see the complete details of USB Overdrive on their website at [www.usboverdrive.com](http://www.usboverdrive.com).

## **TYPING WITH AN ON-SCREEN KEYBOARD**

The Click-N-Type onscreen virtual keyboard is highly recommended for use with all models of the TetraMouse because of its advanced features. It is available as a free download at the author's website at <http://www.lakefolks.org/cnt/>.

Also available on the Click-N-Type website is the Click-N-Type Designer that allows you to custom design your own version of the virtual keyboard layout.

The features of the Click-N-Type virtual keyboard are too numerous to list here. See all details on the website and in the Help files included in the program.

# **OPERATING OPTIONS AND TIPS**

## **KNOB OPTIONS**

The TetraMouse comes with 5/8-inch diameter round knobs (part designation TMRK) as standard equipment, but other knobs are available such as the Cup Knobs (TMCK) that may be used to operate the TetraMouse with the tongue or finger, and Bulb Knobs (TMBK) that bend easily and are intended for use by people with motor control issues in order to avoid personal injury or damage to the TetraMouse. All knob options are interchangeable. Knobs are easily removed by pulling them off, and installed by pushing them on. The joystick shafts are threaded, but the flexible material of the knobs allows them to be installed and taken off without damaging the threads or the knobs. The threaded shafts also allow installation of older screw-on TetraMouse knob styles. See the [tetramouse.com](http://tetramouse.com) website for all current knob styles.

## **TIPS AND TECHNIQUES**

**MOUSE POINTER SPEED** - It is recommended that the Windows mouse default pointer speed settings be used when first setting up the TetraMouse. From the Control Panel, open Mouse Properties (Mouse) and click on the “Pointer Options” tab. The Motion slider should be set to the center position half way between “Fast” and “Slow”. This setting will affect all the TetraMouse speed settings proportionally.

It is recommended that any third party mouse drivers be uninstalled if the TetraMouse seems to run excessively fast or slow.

If you use an operating system other than Windows, start with the default settings and make adjustments to mouse pointer speed if desired.

## TIPS AND TECHNIQUES (*Continued*)

**DEVELOPING YOUR SKILLS** - As with any new device, your operating skills will improve with practice. As you begin learning how to use the TetraMouse don't be discouraged if it feels like you are not making much progress. Remember that any type of mouse takes some time to learn, even for people without disabilities. Practice will improve your skills dramatically. You will learn how much movement, and in what direction, it takes to achieve the desired results. Mouse operations, especially those that require moving first in one direction, then another, need a little more attention than operations requiring just a simple single direction movement. With practice you can refine these moves and increase your efficiency and proficiency.

**WEB BROWSING** - Most web browsers, such as Internet Explorer, Firefox and others, recognize mouse buttons 4 and 5 as shortcuts for the "Back" and "Forward" browser functions. Consider not remapping these buttons if you plan to browse the internet often.

Scrolling up and down on web pages is a good feature to have. The "third" or "middle" button (push down on the left joystick) will change the mouse pointer to a scroll cursor in most browsers and many other windows when scroll bars are present on the sides of those windows. With the scroll cursor activated, you can scroll by moving the mouse (pushing the right joystick) in the direction you wish to scroll. Exit this mode by pushing the left joystick down again, restoring the normal mouse pointer.

By utilizing the third or middle button technique for scrolling, the scroll up and scroll down functions on the TetraMouse are free to be remapped to perform other functions.



## TIPS AND TECHNIQUES *(Continued)*

OTHER APPLICATIONS - Software applications that are capable of recognizing more than five buttons sometimes provide a means to redefine the button functions within the program. Explore these possibilities to make computing more efficient.

It is a good idea to read help files in applications in order to discover ways to increase efficiency. The Click-N-Type virtual on-screen keyboard application that allows you to type using the TetraMouse has some very handy features that may not be apparent until you study the help file and discover, for example, that you can type an upper case letter by simply doing a right click on the key, and a lower case letter by doing a left click. This saves having to click on the Shift key to capitalize a word.

Familiarity with your software applications is the best method to improve your efficiency on the computer. You work best when you understand and utilize the capabilities of your tools to the fullest extent.

### **CLEANING THE TETRAMOUSE**

Use a soft cloth slightly dampened with isopropyl (rubbing) alcohol to clean the housing of the TetraMouse and the Articulated Arm mounting system. Allow the alcohol to evaporate completely before use. Do not use any other cleaning agents or solvents on the TetraMouse housing. The joystick knobs may be cleaned by removing them and scrubbing and rinsing with a toothbrush and soapy water, or toothpaste, or isopropyl alcohol. Rinse well and dry completely before reinstalling. Do not allow any liquids to enter the TetraMouse housing.

# ***OTHER FEATURES***

## **SLEEP MODE**

The TetraMouse XA goes into a low-power sleep mode when the computer goes into sleep mode. Most computer operating systems allow you to enter sleep mode manually, or they can be set to go into sleep mode after a programmable period of time of no user activity. This is especially useful on battery powered computers to preserve battery life between chargings.

To wake the computer from sleep mode with the TetraMouse, hold the left joystick down for about one second, then release. You may have to do this more than once to wake the computer.

## **SUPPORT AND MORE INFORMATION**

Visit the TetraMouse website for more product information, customer support and the latest contact information.

***[www.tetramouse.com](http://www.tetramouse.com)***

# **WARRANTY AND SUPPORT**

## ***30-day Satisfaction Guaranty***

Satisfaction guaranteed! If you are not satisfied with the performance of the TetraMouse you may return it for a full refund (less shipping) within thirty (30) days from the original date of purchase. Return shipping charges or any foreign currency exchange fees or other third party fees are not covered by this guaranty.

## ***Lifetime Repair/Replace Warranty***

The TetraMouse is warranted to be free from defects for as long as you own it. If it fails for any reason TetraLite Products will replace or repair it free of charge, however, shipping charges are not covered by this warranty and must be paid by the customer. This warranty is transferable if the TetraMouse is given, or sold as used equipment, to another person or organization. This warranty does not cover any shipping and handling charges or any PayPal or foreign currency exchange fees. This warranty may be void if the TetraMouse is resold under another name or brand, or if any of the original TetraMouse markings, logos or serial numbers are intentionally altered, removed or obscured.

## ***Customer Support***

TetraMouse customers are provided with forever customer technical support for the life of the product. This support is transferable and follows the TetraMouse in the event it is sold or given to another person as used equipment (not resold as "new"). TetraLite Products will do its best to provide the best customer support possible in a timely manner. TetraMouse users are encouraged to contact TetraLite Products by email or phone with any questions or comments. The latest contact information is always available at [www.tetramouse.com](http://www.tetramouse.com).

## ***Disclaimer***

The TetraMouse is not intended for use in critical medical or life support applications and TetraLite Products will not be responsible for any damages incurred by its use as such. TetraLite Products will not be held responsible for the unlikely event of any damage or personal harm resulting from the use or misuse of any of its products in any manner whatsoever. By purchasing a TetraMouse you agree to not hold TetraLite Products responsible for any damages whatsoever that may occur to any person, entity, property, computer, pets or other equipment or furnishings as a result of its use.

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