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# Operator's Manual

for the

## HeadMaster Plus™

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. You can determine whether this product is causing interference in your radio or television by turning this product off. If the interference stops, it was probably caused by this product or one of its accessories.

You can attempt to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move this product to one side or the other of the television or radio.
- Move this product farther away from the television or radio.
- Plug this product into an outlet that is on a different circuit from the television or radio ; that is, this product should be controlled by different circuit breakers/fuses from the television or radio.
- If necessary, contact a Prentke Romich Company service technician for assistance.

### **IMPORTANT**

Changes or modifications to this product which are not authorized by Prentke Romich Company could exceed FCC limits and negate your authority to use this product.

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.



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## **HeadMaster Plus**





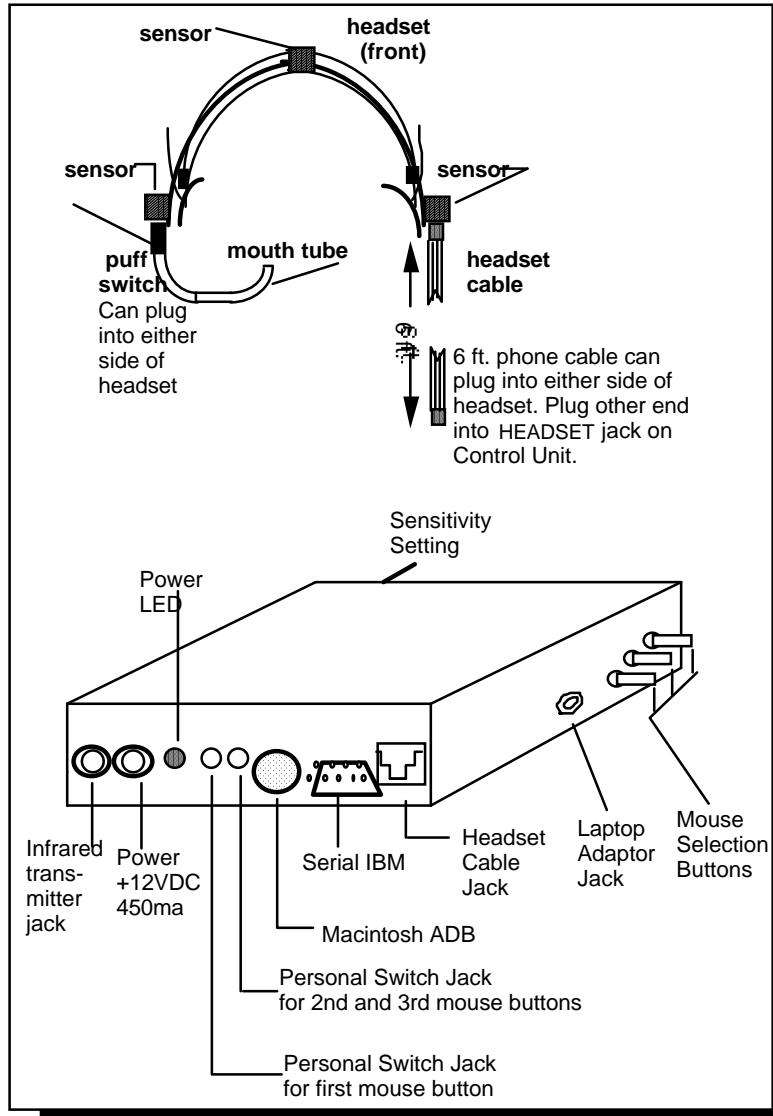
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## Introduction

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The HeadMaster Plus is a mouse that is operated by head movements. It allows someone who cannot use their hands or arms to operate a personal computer. The mouse button is operated by a puff switch mounted on the headset or by other switches plugged into the back of the Control Unit.

The Control Unit is placed on top of your computer's monitor and connected to the computer with a cable. The operator wears a headset which is connected to the Control Unit with a six line phone cord. An ultrasound signal is transmitted from the front of the Control Unit and picked up by the three sensors mounted on the headset. By comparing the signal strength among the three sensors, the HeadMaster determines the position of your head and moves the mouse cursor around the screen.



## Headset, Puff Switch and Control Unit

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## Assembling and Wearing the Headset and Puff Switch

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### Plug in the Puff Switch and Mouth Tube

The black end of the puff switch has a phone jack attached to it. Plug this into the connector on the bottom of one of the headpiece sensors. The puff switch is delicate so gently insert a mouth tube into the switch. Grasp the entire switch and insert the tube by slowly twisting it back and forth into the switch. Remove it the same way.

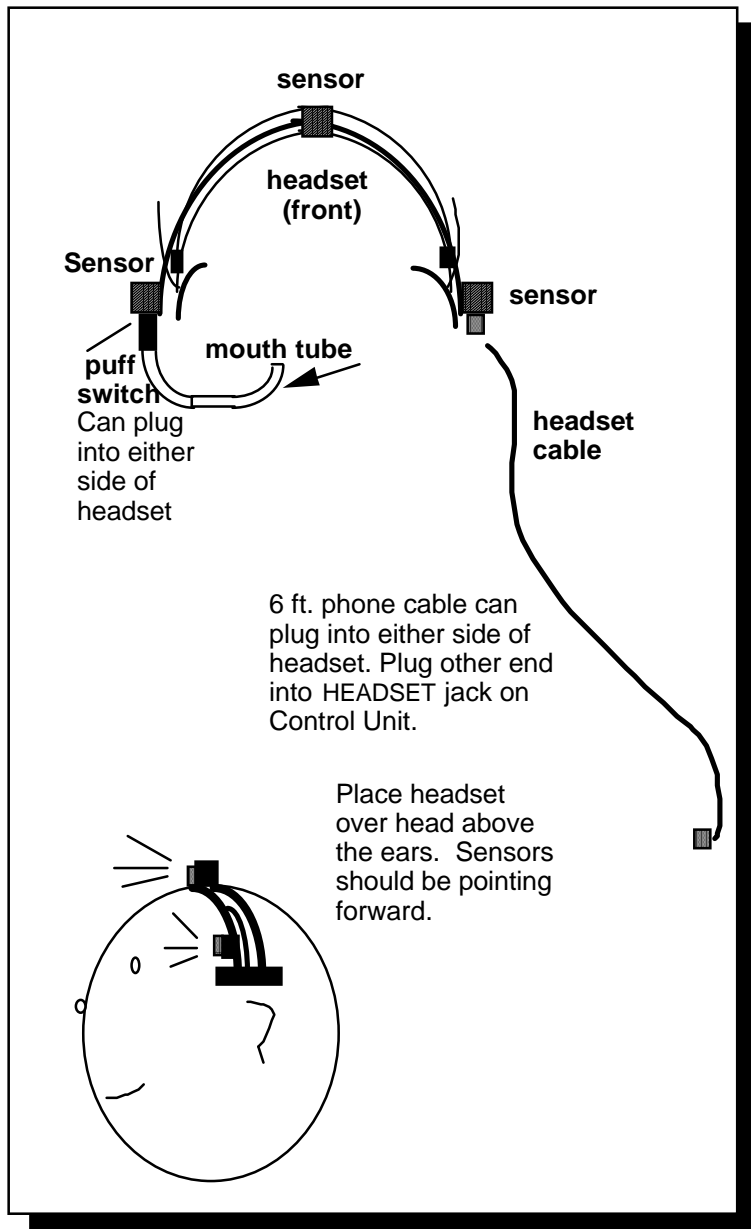
### Adjust the Puff Switch

Try to adjust the mouth tube so that you can reach it just by opening your mouth. You can bend the tube if necessary. When you push the tube out of your mouth with your tongue, the tube should rest just below your lower lip. When you open your mouth, the tube should automatically slide back into it.

### About Mouth Tubes

The mouth tubes that come with your HeadMaster Plus are the saliva ejectors that dentists use. You can reorder them from PRC or you can get them from any dental supply company. For hygienic reasons you should replace used mouth tubes frequently. Discard the used tubes—don't try to wash them out.

See page 33 for information about using the puff switch to click, double click and drag screen objects.



## Headset

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### Plug in the Headset Cable

*The Headset cable is 6 ft. long and has a phone jack on both ends.*

You plugged the Puff Switch into one of the sensors. Now plug one end of the *Headset cable* into the connector on the bottom of the other sensor . Plug the other end of the cable into the connector labeled HEADSET on the *Control Unit*.

#### Note:

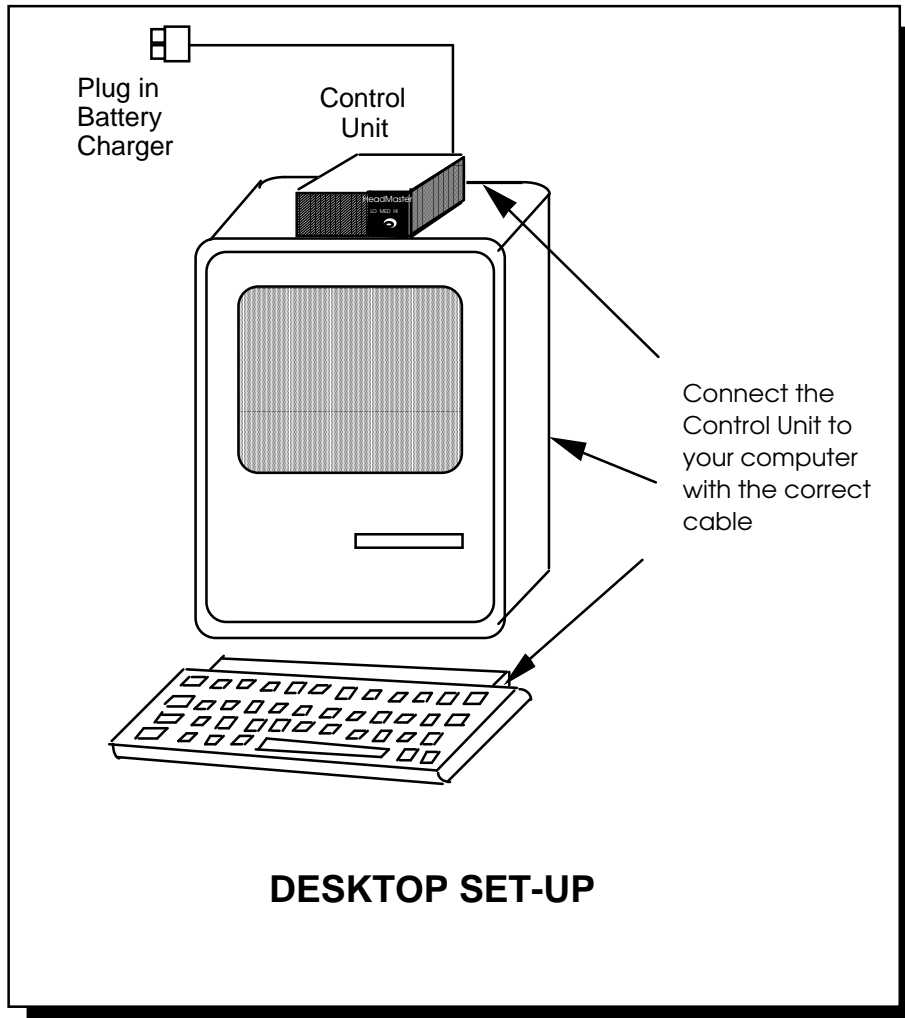
The Headset cable is a **6-wire** phone cable, **not** a standard 4-wire cable. Should you ever have to replace this cable, remember to get a **6-wire** phone cable. The puff switch will not work with a 4-wire cable.

### Headset Placement

Grasp the Headset by the curved, rubber-tipped pads which are below the sensors on each side of the Headset. Push the pads *up* as far as they will go. Place the Headset over your head so that the black bands are nestled firmly over the top of your head and the pads are above your ears. You may move the pads up and down to insure a comfortable but tight fit. The pads should remain above the ears and the headband should fit snugly over the head. If the headband is too loose it will not stay on your head.

The Headset will probably be most comfortable resting above your ears, but you may try to position it differently if you wish. Just make sure the Headset does not slide around on your head and that the sensors point *toward* the computer. (The front of the Headset is the side with plastic grills over the sensors.)

A little hair falling in front of the Headset sensors should not bother the performance of the HeadMaster Plus. However, if the Headset is too far back on your head or if too much hair covers the sensors, the signal from the Control Unit may not be able to reach the Headset. If the cursor doesn't work, check that the Headset sensors are clear of hair and are facing forward on your head.



## Standard Desktop Set Up

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## Connecting the Control Unit to a Computer

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### Set-up Basics

Here are a few general rules to follow when installing your HeadMaster Plus.

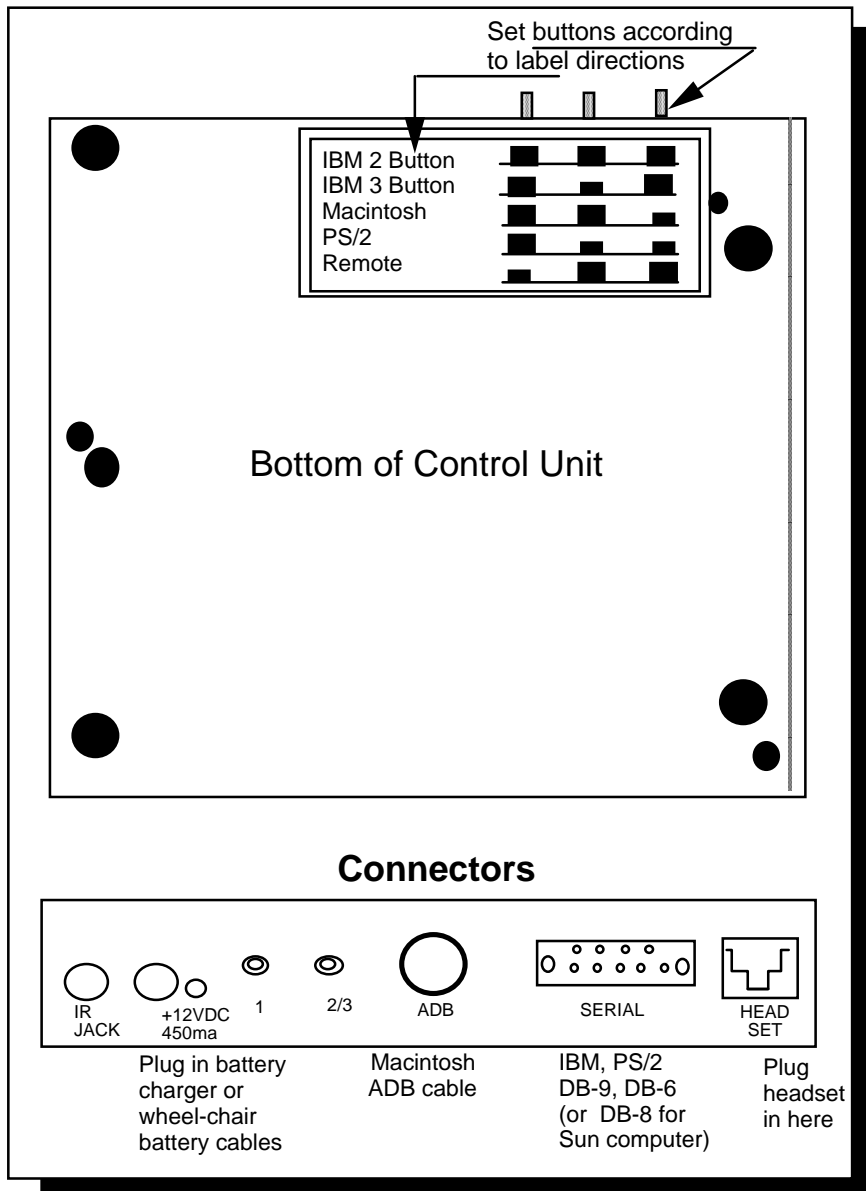
- Make sure your computer is turned off and that the power cord to the Control Unit is disconnected before doing anything else!
- Disconnect your computer's regular mouse. Only one mouse device should be connected to your computer at a time. If you need to frequently switch between a HeadMaster Plus and a desk top mouse consult Appendix -B for some solutions.
- If you are using an IBM computer, make certain that you have a serial or PS/2 port available. If you are going to use a serial port make sure it is not occupied by a modem or other serial device.
- **Always do set-up steps in the following order**
  1. Set button code on Control Unit
  2. Make all cable connections
  3. Apply power to the Control Unit
  4. Turn on computer and load your program.

### Set the Mouse Selection Switches on the Control Unit

When you first connect the HeadMaster Plus to a computer you must indicate which mouse you are using. On the **side** of the Control Unit there are three small gray switches. On the **bottom** of the Control Unit there is a label that identifies these switches. Tell the Control Unit which mouse you are using by setting the switches according to the positions for your mouse on the label. For example,



This position sets the Control Unit for use with an IBM 3 button mouse.



## Mouse Settings and Cable Connections



If you are using the **Remote Adapter**, set the switches to the "Remote" position. (The mouse selection is made on the Remote Adapter—see page 13.)

If you are using a **Sun computer** set the switches for the "IBM 3-button" mouse.

### **Connect the Correct Cable**

Set the switches to match your mouse, and then connect the correct cable between your Control Unit or remote adapter and your computer. Place the Control Unit on the top of your monitor. Follow the directions below for your particular computer.

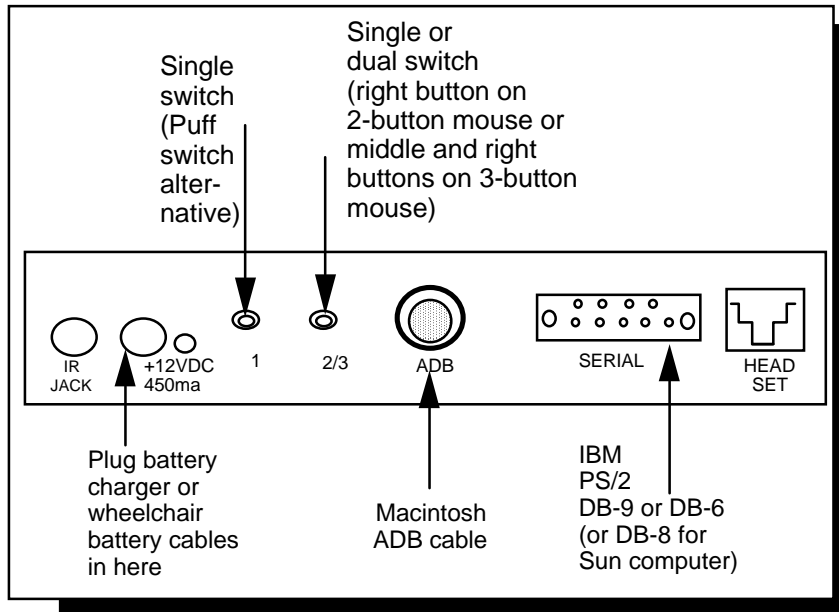
### **Macintosh PowerBook or Apple IIGS, IMAC G3**

If you are using a Macintosh computer use the **ADB cable** (the one with a small round connector on each end). Plug one end into the connector labeled ADB on the Control Unit of the HeadMaster Plus or the Remote Adapter. Plug the other end of the cable into the port *on your keyboard* where you normally plug in the mouse. ➤ **See note below.** Connect the battery charger that came with your HeadMaster Plus to the Control Unit at the port labeled +12VDC 450ma. Plug the other end of the charger into an electrical outlet.

➤ If you have a Macintosh with USB ports instead of ADB ports, you will need an ADB-to-USB adapter. (You can purchase these at computer stores.) Plug the adaptor into the USB port on the computer. Plug the ADB cable into the adaptor.

### **IBM Serial Mouse**

If you are using an IBM serial mouse, use the **DB9 to DB9 serial cable**. Plug one end into the port labeled SERIAL on the Control Unit or the Remote Adapter. Plug the other end of the cable into the *computer's serial port where the mouse usually goes*. Connect the battery charger that came with your HeadMaster Plus to the Control Unit at the port labeled +12VDC 450ma. Plug the other end of the charger into an electrical outlet. If your computer's serial port has 25 pins, purchase an adapter at a local computer or electronics store.



## Computer and Mouse Connections on the Control Unit

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## IBM®PS/2

If you are using an IBM PS/2 mouse, use the **DB9 to 6-pin mini DIN PS/2 adapter cable**. Connect the DB9 end of the cable to the port marked SERIAL on the Control Unit or the Remote Adapter. Plug the other end of the cable into the *PS/2 mouse port on the computer*.

Connect the battery charger to the HeadMaster Plus Control Unit at the port marked +12VDC 450ma and plug the other end of the charger into an electrical outlet.

## Sun Computer (optional cable)

If you are using a Sun computer you must have a **DB9 to 8-pin mini DIN cable**. This cable is an optional accessory and you can order it from the Prentke Romich Company. Plug one end of the cable into the port labeled SERIAL on the Control Unit or the Remote Adapter. Plug the other end of the cable into your *computer's mouse port*. Connect the charger that came with the HeadMaster Plus to the Control Unit at the port labeled +12VDC 450ma and plug the other end of the charger into an electrical outlet.

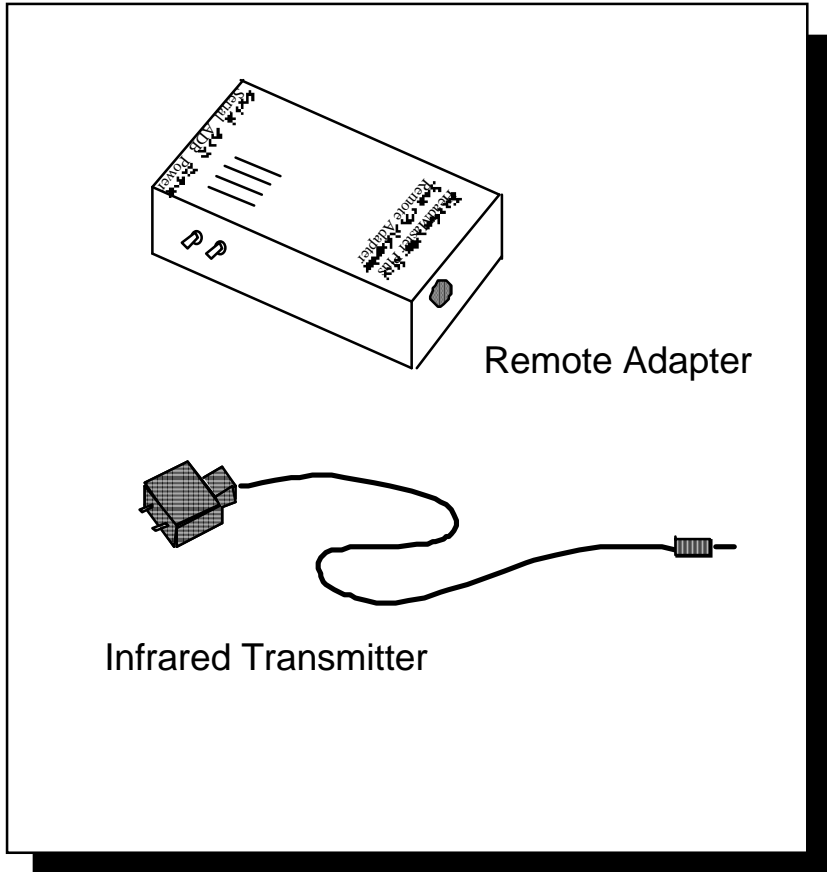
### Mouse Note:

On the Control Unit there are two ports labeled "1" and "2/3".

Port "1" allows you to plug in a single switch that can be used as an alternative to the puff switch. The switch will activate the only mouse button on a Macintosh mouse or the left button on an IBM or compatible mouse.

The port labeled "2/3" allows you to access the right mouse button on a 2 button mouse, or the middle and right mouse buttons if you are using a 3 button mouse on an IBM or compatible computer. To access buttons 2 and 3 you must use a dual switch with a stereo plug.

Another use for port 2/3 is to support a switch that will latch and release the mouse button used on the Macintosh



Remote Adapter and Infrared Transmitter

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## Connecting the Remote Adapter

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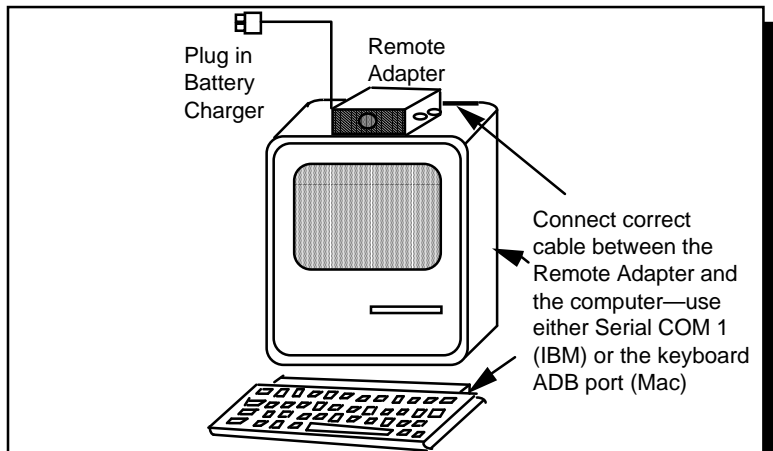
The Remote Adapter is an optional accessory that you can order from the Prentke Romich Company.

With a Remote Adapter an infrared transmitter is mounted on your Headset and the Remote Adapter box is placed on your computer. Your head movements are sent to the computer by infrared signals—just like a TV remote control. You are no longer "wired" to your computer.

The illustration on the next page is divided into two halves. The top half shows the Remote Adapter mounted on a computer. The bottom half shows how the rest of the HeadMaster Plus components are mounted on the Headset and your wheelchair.

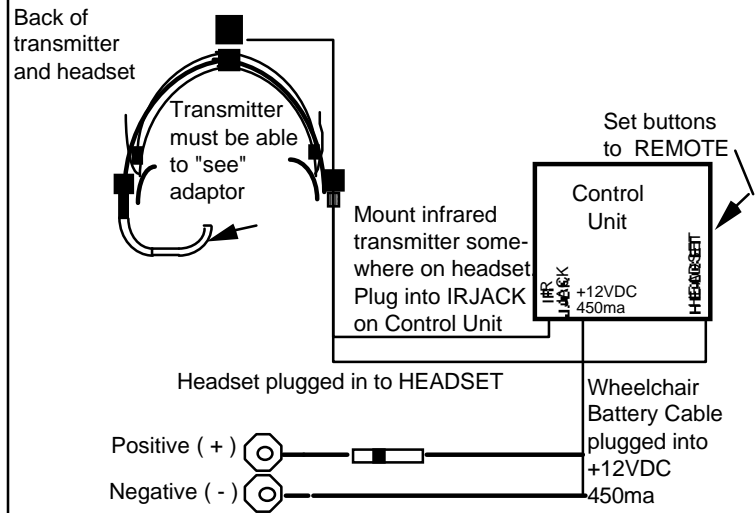
### To Set-up the Computer Station

1. Make sure your computer is OFF.
2. If necessary, disconnect the Control Unit from the computer and remove any cables connected to it.
3. Take the **Remote Adapter** and find the two small switches on the *side* of the adapter. Set these switches to indicate the kind of mouse you are using. Use the guide on the label. (If you are using a Sun computer, set switches the same as for IBM 3-Button Mode.)
4. Connect the correct cable to the **Remote Adapter** and to your computer following the instructions on pages 9-15. Plug the small PRC battery charger into the connector labeled 12VDC 450ma. Plug the other end into a wall outlet.
5. Place the Remote Adapter on top of the computer monitor.



**DESKTOP SET-UP**

**HEADSET AND WHEELCHAIR SET-UP**



**Connecting to the Remote Adapter**

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## To Set-up the Headset and the Wheelchair

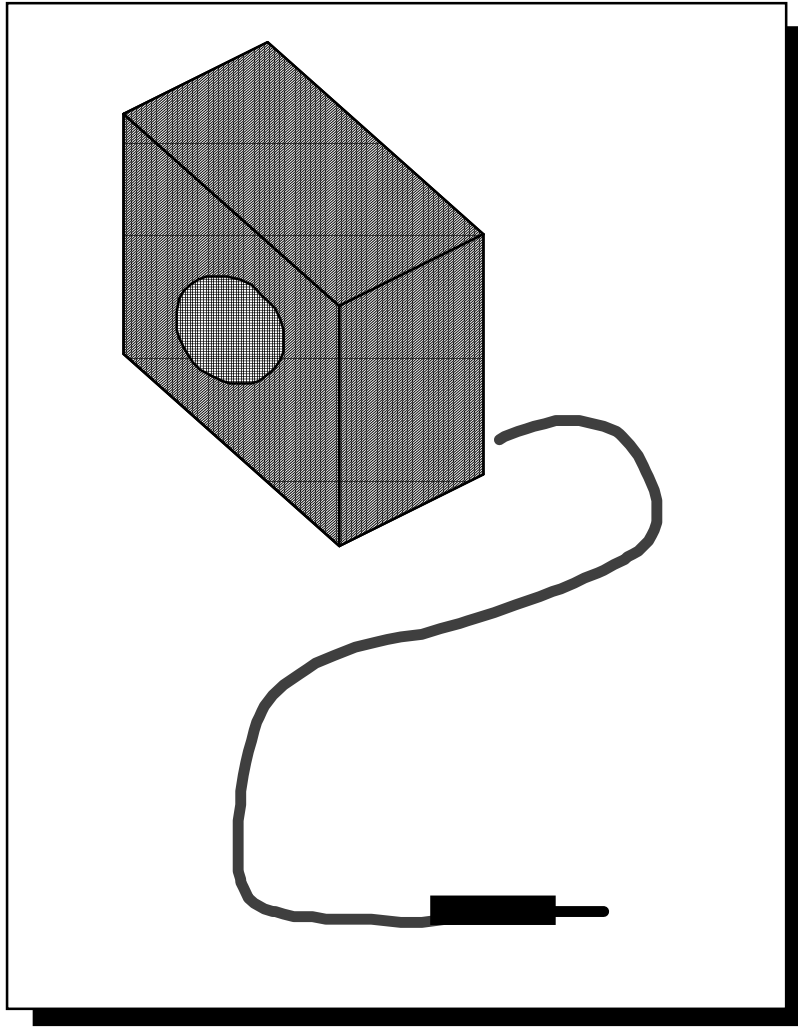
1. Plug the *puff switch* into one of the sensors on the side of the Headset. Plug one end of the 6 ft. *phone cable* into the other side sensor. Plug the *other end of the phone cable* into the port marked HEADSET on the HeadMaster Plus Control Unit.

2. Mount the miniature **Infrared Transmitter** (small black square with bulbs, attached to long gray cord) on your Headset using the Velcro that is provided. You may mount the transmitter anywhere on the headset.

Plug the cable from the **Infrared Transmitter** into the port labeled IR JACK (INFRARED JACK) on the Control Unit. To avoid tangled wires, use the enclosed cable ties to tie the transmitter cable and the Headset cable together. Try wrapping a cable tie around the wires about every 5 inches

3. Set the buttons on the side of the Control Unit to the **REMOTE** setting. The label on the bottom of the Control Unit shows you the correct setting.
4. Select a location on the back of your wheelchair where you can mount the Control Unit. Attach the Control Unit to the wheelchair using the Velcro which is provided.
5. Connect the **battery cable** to the *Control Unit* at the port labeled "+12VDC 450ma". Connect the positive (red) and negative (black) connectors to the matching sides of the wheelchair battery. (If you are not connected to a wheelchair battery, plug the battery charger in here.)
6. Turn your computer On and you are ready to begin using the HeadMaster Plus.

➡ See **Appendix D** if you are using an HM-3RA with an HM-1P.



Laptop Adapter



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## Connecting the Laptop Adapter

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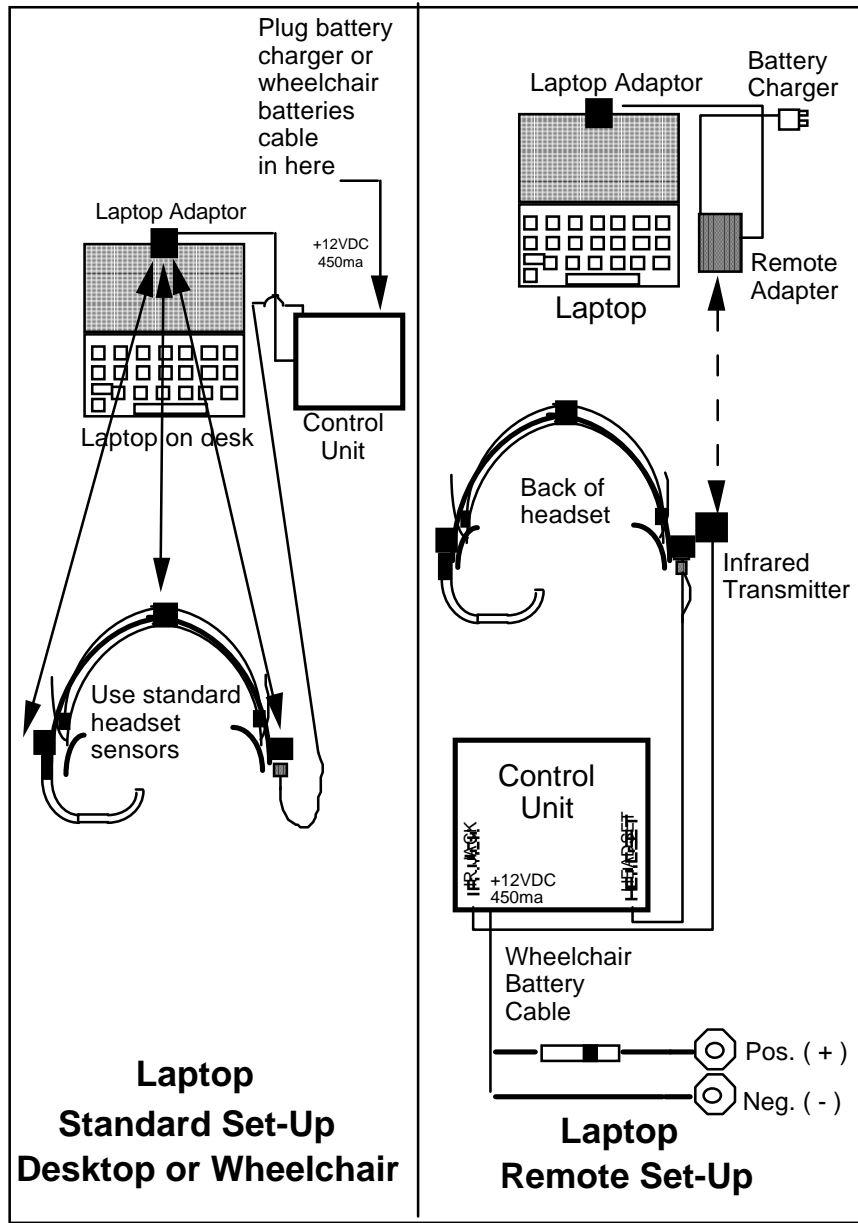
You can order an optional Laptop Adapter from PRC. The adapter is a miniature ultrasonic transmitter that you attach to the top of a laptop's screen with a Velcro tab.

You can use the HeadMaster Plus with laptop computers in three different ways:

1. **Remote System**—the laptop is on the computer desk and you use the Remote Adapter and Infrared Transmitter. (You can leave the computer station independently.)
2. **Standard System**—the laptop is on the computer desk. (You will have to disconnect the Headset wire in order to leave the workstation.)
3. **Laptray System**—the laptop is on the wheelchair tray and connected according to the Standard System. A UPC-1 cable is required. The laptop travels with you on your wheelchair tray.

### **Laptray System—Laptop Computer on a Wheelchair Laptray**

1. Place the Laptop Adapter on top of the laptop computer screen using the Velcro patch. Make sure the grill on the front of the Adapter faces toward you. Plug the end of the Laptop Adapter cable into the LAPTOP ADAPTER jack on the Control Unit.
2. Set the buttons on the Control Unit to match the mouse you are using (see the label for the specific settings). Connect the appropriate cable between the laptop and the Control Unit.
3. Connect the Headset to the jack labeled HEADSET on the Control Unit.
4. Connect one end of the UPC-1 wheelchair battery cable to the 12VDC 450ma jack on the Control Unit. Connect the other end of the cable to a 12 volt wheelchair battery.
5. Put the laptop computer on the Laptray. Make sure the computer is secure. Save space on the laptray for the Control Unit. You can place the Control Unit next to the computer or somewhere else, but remember that the Laptop Adapter cable must be able to reach between the laptop computer and the Control Unit.



Remote and Standard Laptop Set-Ups

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## Standard System—Laptop on Desk

1. Place Laptop Adapter on top of laptop screen using the Velcro patch. Make sure the grill on the adapter faces toward you.
2. Connect the Laptop Adapter cable to the jack labeled LAPTOP ADAPTER on the Control Unit. Place the Control Unit near the laptop.
3. Connect the Headset to the jack labeled HEADSET on the Control Unit.
4. Connect a PRC battery charger to the Control Unit and plug the other end of the charger into a wall outlet.

## Remote System—Laptop on Desk with Remote Set-Up

1. Place the Laptop Adapter on top of the laptop screen using the Velcro patch. Make sure the grill on the front of the adapter is facing towards you, the operator.
2. Connect the Laptop Adapter cable (attached to adapter) to the jack labeled LAPTOP ADAPTER on the *Remote Adapter*. Place the *Remote Adapter* on the table next to the laptop. Make sure the grill on the Remote Adapter is facing toward you.
3. Connect the PRC battery charger to the Remote Adapter and plug the charger into a wall outlet. Set Remote Adapter buttons to match your mouse and install the appropriate cable (see pages 9-13).
4. Place the *Infrared Transmitter* on one of the wheelchair arms (use Velcro to secure it.) The small bulbs on the Transmitter must face *toward* the Remote Adapter. (They must be somewhat in line so that they can ' see' each other.) Plug the Infrared Transmitter into the jack labeled IR JACK on the Control Unit.
5. Plug the Headset into the jack labeled HEADSET on the Control Unit.

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6. Connect one end of the wheelchair battery cable to the 12VDC 450ma jack on the Control Unit. Connect the other end of the cable to a 12 volt wheelchair battery.

 **Note:**

**With both Standard and Laptray Systems:**

If you are setting up with a *manual* wheelchair, you must use either a PRC battery charger or you must purchase a special auxiliary battery pack to supply power to the Control Unit.

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## Setting Up Your Mouse Driver

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All standard mice, including HeadMaster, require software called a mouse driver to operate.

### **Macintosh, PowerBook and Apple IIGS**

If you own a Macintosh, PowerBook or Apple IIGS computer, connecting the HeadMaster Plus is easy. All three of the above computers were factory engineered to use the same mouse. The mouse driver is part of the operating system and loads automatically.

### **IBM and Compatibles - Serial and PS/2**

Two operating systems are in common use with IBM computers and compatibles; Windows and DOS .

#### **Windows Systems**

Windows provides a driver for both Serial and PS/2 mice. The driver you should use is called Microsoft Serial or IBM PS/2. Consult your Windows manual to setup and install this driver.

#### **DOS Systems**

If you are using DOS version 4.0 or later, a mouse driver is provided for you. Check the DOS operating system manual to setup and install this driver.

If you are using a version of DOS that is earlier than 4.0 and do not have a mouse installed, contact PRC Service Department to obtain a mouse driver.

### **A Final Note**

If your computer does not currently have a mouse, we recommend that you purchase a Microsoft compatible desktop mouse. A mouse can be obtained in computer stores and mail order catalogs for between \$10.00 and \$40.00. The desktop mouse will make it easier for the support person to setup and test the system and will aid in trouble shooting.

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## Positioning Yourself in Front of the Computer

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When you are wearing your HeadMaster Plus Headset, you do not have to sit in an absolutely centered position in front of the computer. As you get used to the HeadMaster Plus, you' ll see that the Headset allows you quite a bit of freedom of movement. You can be close to the computer or farther away from it. You can lean to the right or left. Your *head* does not have to point toward the computer, just the sensors or transmitters. The HeadMaster Plus only measures the movement and changes in the angle and rotation of your head. It ignores any other movement.

Because you have this freedom with the HeadMaster Plus, you will find it worthwhile to spend some time discovering the most comfortable position for you.



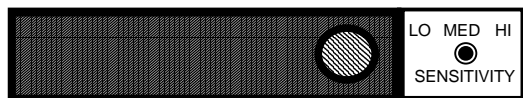
### **Remember:**

If you are using the Remote Adapter, the adapter and the Infrared Transmitter must be able to ' see' each other. You may not want to mount the Transmitter until you have found a comfortable position for yourself. Then place the Infrared Transmitter where it will be in the line-of-sight with the Remote Adapter.

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## Select a Cursor Sensitivity Setting from the Control Unit

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The HeadMaster Plus turns head motion into cursor motion on the computer screen. You can decide how much cursor motion results from a given amount of head motion by selecting a SENSITIVITY setting of LO, MED or HI from the back of the Control Unit. "Sensitivity" refers to how fast or how slowly the cursor moves when you move your head. *We suggest you start with the sensitivity set to LO.*

Some computers allow you to set a 'mouse tracking speed.' To set the mouse speed, most computers ask you to open the Control Panel on your computer, then open the "Mouse" file. We suggest that you set both the mouse tracking speed and the double-click speed to the *slowest speed possible*. If you set the mouse speed in your computer, you do not have to set the SENSITIVITY on the Control Unit.

### Lining Up Your Head and the Cursor

When you first put the Headset on and look at the computer screen, your head position probably won't be in a direct line-of-sight position with the cursor. For example, your head may be pointing at the center of the screen but the cursor may be in the upper left corner.

#### Use this rule to align your head with the cursor:

*"If the cursor is not in front of your eyes, move your head toward the current location of the cursor."*

As you begin to move your head toward the cursor, the cursor will start to move to one of the screen's edges. When the cursor strikes the edge, it will pause and 'slip' and allow your head to overtake its location. Now, move your head back to a center screen gaze. The

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cursor should follow along and be fairly well centered. If not, move your head toward the edge of the screen again, allow the cursor to strike the edge and then move your head back towards the center of the screen. Practice this technique of lining up your head and the cursor so that it becomes second nature to you.



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## Learn to 'Click' and 'Drag' the Cursor Using the Puff Switch

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The puff switch replaces the *mouse button* on a Macintosh computer and the *left button* on an IBM or compatible computer mouse.

### Place the Mouth Tube in Your Mouth

Place the mouth tube between your lips as if it were a soda straw. If the tube is difficult to hold, bend it into a semi-circle; the plastic bends easily into a 'J'-shaped curve. The proper way to operate the mouth tube is with an airtight seal between your lips and the tube. Cut the bulb end off the mouth tube if it interferes with your being able to make an airtight seal.

### To 'Click' on a Screen Icon

Point with your head to move the cursor until it rests on top of the icon or window tool you wish to 'click.' Slightly increase the air pressure inside your mouth and then immediately release the pressure—the idea is to create a short 'pressure pulse'. There is no need to let air escape around the edges of the mouth tube as you release the pressure. Try to maintain the seal with your lips. When you do this correctly, the icon will switch from a light color to a dark color to indicate that you have selected it.

### To 'Double-Click' a Screen Icon

Double-clicking is an easy way to open disk drives or different programs. To double-click with the puff switch, make two air pulses quickly, one right after the other. Remember, an air pulse is when you slightly increase and then release the air pressure inside your mouth. Try to keep your head perfectly still when double-clicking. If you move your head when double-clicking, you may drag the icon instead of opening it.

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### To ' Drag' a Screen Icon

Point to the icon or window you want. Increase the air pressure in your mouth until the icon switches from light to dark. *Without releasing the air pressure, move your head.* The icon or window should follow your head movement. Stop moving your head and release the air pressure in your mouth to let go of the screen object.

#### Recommendation

We **strongly suggest** that you set the mouse tracking speed and double-click speed to the lowest speed possible.

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## **Appendices**



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## **Appendix A: Use an On-Screen Keyboard with the HeadMaster Plus**

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While there are many painting, drawing and educational programs that can be accessed with the HeadMaster Plus, much of a computer's power comes from using programs that require using a keyboard. In order to use these programs there are several on-screen keyboards which are available that you can operate with the HeadMaster Plus.

### ***For Macintosh Computers***

#### **WordWriter**

WordWriter is a Desk Accessory that generates a moveable window with three different fixed sizes. WordWriter displays the standard QWERTY keyboard and offers word prediction as well. Activations are made with the puff switch. WordWriter also works with Hyper Card and is available for either System 6 or System 7. You can order WordWriter from Prentke Romich Company.

#### **ScreenDoors 1.1**

ScreenDoors is a high quality on-screen keyboard that generates a moveable, resizeable window. It has excellent graphics and fonts on the keyboard. It offers word prediction and context specific dictionaries that you can create for different subjects. Activations are made through the puff switch. ScreenDoors runs in the Multifinder® environment on System 6.3 or higher. It requires a hard drive and at least two megabytes of RAM memory. ScreenDoors is available from Prentke Romich Company.

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## *For IBM PC's and Compatibles*

### **WiViK 2.0**

WiViK 2.0 generates a moveable, resizable window and offers a number of different keyboards. Keyboards can be customized to contain letters, numbers, short words and phrases and functions. Selections are made either through a puff switch or by holding the cursor on a character for an adjustable length of time. WiViK 2.0 can also be bundled with a writing rate enhancement package (WREP) to add word prediction and abbreviation expansion features. WiViK 2.0 runs best on an IBM or compatible 386 with 2 megabytes of RAM memory and a hard drive. It also requires the Windows™ 3.1 operating environment. WiViK 2.0 is available from Prentke Romich Company.

### **WiViK WREP**

WiViK WREP (Writing Rate Enhancement Program) contains two methods of increasing speed of text entry: Word Prediction and Abbreviations Expansion. The user types the first letter of a word and Word Prediction causes a group of words to be displayed. If the desired word appears, the user selects it and that word is immediately sent to the working application. If the desired word is not listed, typing an additional letter will refine the word list. Abbreviation Expansion allows short sequences of letters such as NA to stand for longer phrases such as "Name and Address." This product will only work when WiViK 2.0 is already installed on the computer. WiViK WREP is available from Prentke Romich Company.

### **HandiKEY**

HandiKEY allows HeadMaster Plus users to perform keyboard functions while running MS-DOS based applications. As is typical of this type of software, the application and screen are not visible at the same time, but the keyboard screen appears as the cursor is moved and activations are made. HandiKEY offers a variety of screens depending on which functions are needed and incorporates word prediction as well. HandiKEY is available from Prentke Romich Company.

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## Appendix B: Using a Desktop Mouse and a HeadMaster Plus

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Some people like to have a standard desktop mouse connected to their computer while the HeadMaster Plus is also being used. This allows a therapist or teacher to use a mouse, too. The following directions explain how to connect and use a second mouse.

### Macintosh

To connect two mice to your Macintosh you need two free ADB ports. Unless you are using a Macintosh SE computer (which has two ports) you will have to have a "Y" adapter. A "Y" adapter allows you to plug two mice into a single port. You can get a "Y" adapter from mail order houses or computer stores which specialize in Macintosh accessories.

Even when both mice are connected to the "Y" adapter, the Macintosh can only *respond* to one mouse at a time. In order to use one of the mice, the other mouse must be completely still. In other words, make sure you aren't moving the HeadMaster Plus mouse if someone else is trying to use the desktop mouse and vice-versa.

### IBM and Sun Systems

If you want to run a desktop serial mouse along with your HeadMaster Plus mouse, you must have an A/B Data Switch Box. These boxes are sold at computer stores and through computer supply catalogs.

Set up your computer for Microsoft serial mouse input on COM1. Connect your HeadMaster Plus to the "A" port on the data box with the HeadMaster Plus's serial cable. Connect the conventional desktop mouse to port "B" on the data box. Finally, connect the "Input/Output" port of your data box to your computer's COM1 serial port. For this last connection, you may need to purchase a standard serial DB9-DB9 cable if one did not come with the data switch box.

Turn the switch on the front of the switch box to allow either the desktop mouse or the HeadMaster Plus to control your computer.

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## Appendix-C: Troubleshooting

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### Replacing the Headset Cable

1. If you plan to replace the 6 ft. Headset phone cable, make sure that you get a **6-wire** cable rather than the more common 4-wire cable. The *Headset* will work with a 4-wire cable but the *puff switch* will not work with a 4-wire cable.

### Cursor Problems

1. Make sure the Headset is not resting too far back on your head. The signal from the Control Unit on top of your computer monitor must be able to reach the sensors on your Headset.
2. Make sure the Headset is not on backwards. The plastic grille-work over the sensors should be *facing* the computer
3. Double check all the cable connections.
4. Align your head and the cursor by turning your head towards the cursor' s position on the computer screen. When the cursor hits the edge of the screen, turn your head back to a center-screen gaze. The cursor should follow.
5. Make sure the mouse button settings on the Control Unit and/or the Remote Adapter match the kind of mouse you are using.
- 6.(a) If you are using the Remote Adapter, make sure the plastic grille-work on both the Remote Adapter and the Infrared Transmitter can ' see' each other. You may have to place the Transmitter at different places on your Headset before finding a good ' line-of-sight' spot.  
  
(b) If you are using the Laptop Adapter with the Remote System, the same line-of-sight principles apply. You may have to place the transmitter on the arm of the wheelchair for good 'li ne-of-sight' with the Remote Adapter.



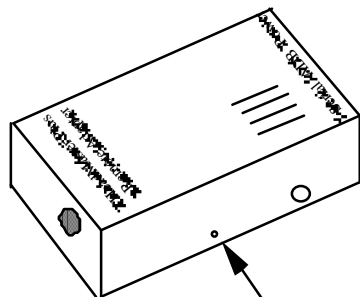
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## Remote Adapter isn' tWorking

7. (a) If you are using the HM-1P Main Unit with the HM-2RA or HM-3RA see **Appendix-D**.
- (b) The HM-2P Main Unit *will not* work with the HM-RA.
- (c) If you are using an HM-2P and the HM-3RA see **Appendix D**.

## Batteries

- 1.(a) If you are using the Remote System or the Laptop and Remote Systems, keep the Remote Adapter plugged into the PRC battery charger and the charger plugged into a wall outlet.
- (b) The Control Unit must be connected to the wheelchair battery or a PRC battery charger.
- (c) If you are using the Remote System with a manual wheelchair , you must have an auxiliary battery pack. Contact the PRC Sales Department for more information.



Insert the end of a paper clip (or something very small) into this hole and push.

**This settings change allows the HM-2RA to work with the HM-1P**

Make the HM-1P and the HM-2RA  
Compatible

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## Appendix-D: Using the HM-3RA

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➡ **HeadMaster catalog numbers are changing in the Prentke Romich Catalogue. The following are the new catalog numbers:**

HM-3P	replaces HM-1P and HM-2P
HM-3RA	replaces HM-2RA
HMX-3	replaces HMX-1

➡ The HM-1P, HM-2P and HMX-1 **must be updated** before you can use them with the HM-3RA. Please contact PRC' s Technical Services Department at 1-800-262-1990 for details.

➡ **If your HM-1P has been updated but your pointer doesn' t move, try the following:**

Hold the Remote Adapter (HM-3RA) so that you can read the PRC label on the front. Now turn it so that you can see the **left** side of the adapter. Notice that there are two holes—a large one and a smaller one. Place the end of something like a toothpick or an unbent paper clip into the *smaller* hole and push slightly on the switch. This changes settings and you can now use the HM-1P with the HM-3RA ..

The HM-3RA is **pre-set** to work with the **HM-3P and an HM-2P that has been updated by the PRC Service Department**. You do not have to change the switch (as described above) to use the HM-2P or HM3P Main Unit.

