

## USING THE APPLE ADJUSTABLE KEYBOARD

The Apple Adjustable Keyboard is a revolutionary new keyboard that allows you to type with increased comfort on your Macintosh computer. You can adjust the angle of the keyboard and the distance between its two halves to arrange it in the most comfortable position for your particular typing style.

This manual provides a map of the keyboard, tells you how to connect it to your Macintosh and install necessary software, and explains how to adjust the keyboard.

### KeyBoard Layout

**Tab key:** Moves the insertion point horizontally to the next stopping place (such as a tab stop or field in a dialog box or program).

**Caps Lock key:** A locking Shift key for letters only. When Caps Lock is on, the LED is lit.

**Shift key:** Produces Uppercase letters ( or the upper character on the key).

**Control key:** Works in combination with other keys, depending on the program you're using.

**Option key:** Produces special characters when pressed in combination with other keys; also modifies other actions.

**Command key:** Combines with another key as an alternative for choosing a menu command.

**Space bar:** Moves the insertion point one space to the right.

**Return key:** Moves the insertion point to the beginning of the next line. In a dialog box, pressing Return is the same as clicking the outlined button.

### Unpacking the keyboard

**Record key:** Starts and stops recording if your Macintosh has recording equipment and applications.

**Arrow keys:** Move the insertion pint, as an alternative to using the mouse. In some programs, the arrow keys have other functions.

**Palm rests:** Support your hands in a comfortable position during rest periods.

**Clear key:** Deletes the current selection. In some programs, Clear has other functions.

**Numeric keys:** These keys produce numbers and mathematical symbols.

**Enter key:** Confirms information you have provided. In many applications, the Enter and Return keys have the same function.

**Special keys:** The function of these keys depends on the operating system and program you're using.

**Template pegs:** A template that came with your keyboard fits over the function keys. These pegs hold it in place. You can write on the template to label the function keys.

**Funtion keys:** Some programs allow you to use function keys to give commands. With special utility programs you can assign commands or action sequences to function keys.

**Sound control keys:** Increase, decrease, or mute the volume of sound from your Macintosh.

**Delete key:** Deletes any material currently selected, or whatever character comes before the insertion point.

Power On key: On most Macintosh models, pressing this key turns on the computer.

Escape key: The function of this key depends on the program you're using.

#### Unpacking the Keyboard

The Apple Adjustable Keyboard box contains items in several layers. The illustration here should help you find everything you need.

Accessory kit contains the installation disk, cables and the keyboard manual.

#### Attaching the Palm Rests

You can use the keyboard with or without palm rests. To attach them, slide the tabs on the keyboard into the slots on the palm rests. When they are correctly attached, the palm rests will support the weight of your palms without moving from side to side.

Slide the tab on the extended keypad into the slot on its palm rest.

#### Connecting the Keyboard to Your Macintosh

Connect your mouse, keyboard, and extended keypad to the ADB port on the back of your computer (or your monitor), using the cables that came with the keyboard. If your computer has two ADB ports, you can use either one. For most computers, you will need to use the long cable to connect it to the keyboard or extended keypad.

Before you connect the keyboard, be sure your Macintosh is turned off. Plugging in or unplugging the mouse or keyboard while the Macintosh is turned on can damage the Macintosh, the keyboard, and the mouse.

Connect one cable that came with the Apple Adjustable Keyboard to the ADB port on either side of the keyboard or keypad. Connect the other end of the cable to an ADB port on your computer's back panel or your monitor. Align the icon on the plug with the icon on the port. There are several keyboard arrangements shown on the following pages. Experiment to find one that best suits your work style.

If you use the function keys frequently, connect the extended keypad to the right side of the keyboard if you're right-handed or to the left side if you're left-handed.

If you use the mouse often and don't often use the function keys, connect the mouse to the right side of the keyboard if you're right-handed and to the left side if you're left-handed. Connect the extended keypad to the other side of the keyboard.

If you never use the function keys, you don't have to attach the extended keypad.

The keyboard and mouse work normally without the extended keypad.

If you prefer to use the mouse with your left hand, try using one of the following arrangements.

#### Installing the Apple Adjustable Keyboard Software

To use your Apple Adjustable Keyboard, you need to install its software on your hard disk. When you install this software, it is added to your existing system software.

To install the software, you need the Keyboard Installer disk that came with the Apple Adjustable Keyboard. If you haven't unpacked it yet, look inside the accessory kit.

!! IMPORTANT: Be sure to make a copy of the disk and use the copy to install the software. Store the original in a safe place. (The books that came with your Macintosh have instructions for copying disks.) !!

1. Turn on your Macintosh.
2. When you see the desktop appear, insert the Keyboard Installer disk into a floppy disk drive.

To open the Keyboard Installer disk icon, click the disk icon and choose Open from the File menu. A window appears, showing the contents of the disk.

3. Open the Installer icon.

Click the Installer icon and choose Open from the File menu. (Or double-click the icon.)

4. In the dialog box that appears, click Install.

A message on the screen keeps you informed of progress during installation.

5. When you see a message reporting that the installation was successful, click Restart.

That's it! You've installed the Apple Adjustable Keyboard software.

#### Adjusting the Keyboard Split

Open the keyboard and experiment to determine the most comfortable position for you.

Using your thumbs gently slide the two halves of the keyboard apart.

#### Adjusting the Keyboard Slope

The underside of the keyboard and numeric keypad have folding legs you can flip down or leave folded to change the angle between the keyboard or keypad and the work surface.

#### Health-Related Information about Computer Use

Muscle soreness, eye fatigue, and other discomforts and injuries sometimes associated with using computers can occur from performing any number of activities. In fact, misuse of the same muscles during multiple activities can create a problem that might not otherwise exist. For example, if you engage in nonwork activities that involve repetitive stress on the wrist -- such as bicycling -- and also use your computer's keyboard improperly, you may increase your likelihood of developing wrist problems. Some individuals are at greater risk of developing these problems because of their health, physiology, lifestyle, and general exposure to stress. Work organization and conditions, such as workstation setup and lighting, also play a part in your overall health and comfort. Preventing health problems is a multifaceted task that requires careful attention to the way you use your body every hour of every day.

The most common health effects associated with using a computer are musculoskeletal discomfort and eye fatigue. We'll discuss each area of concern below. For information about electric and magnetic emissions, look in the reference material that comes with your computer.

#### Musculoskeletal discomfort

As with any activity that involves sitting for long periods of time, using a computer can make your muscles sore and stiff. To minimize these effects, set up your work environment carefully, using the guidelines that follow, and take frequent breaks to rest tired muscles. To make working with your computer more comfortable, allow enough space in your work area so that you can change position frequently and maintain a relaxed posture.

Another type of musculoskeletal concern is repetitive stress injuries (RSIs), also known as cumulative trauma disorders (CTDs). These problems can occur when a certain muscle or tendon is repeatedly overused and forced into an unnatural position. The exact causes of

RSIs are not totally understood, but in addition to awkward posture, such factors as the amount of repetition, the force used in the activity, the individual's physiology, workplace stress level, and lifestyle may affect the likelihood of experiencing an RSI.

RSIs did not suddenly arise when computers were invented; tennis elbow and writer's cramp, for example, are two RSIs that have been with us for a long time. Although less common than other RSIs, one serious RSI discussed more often today is a wrist problem called carpal tunnel syndrome, which may be aggravated by improper use of computer keyboards. This nerve disorder results from excessive pressure on the median nerve as it passes through the wrist to the hand.

This section offers advice on setting up your work area to enhance your comfort while you use your computer. Since the effects of repetitive movements associated with using a computer can be compounded by those of other work and leisure activities to produce or aggravate physical problems, proper use of your computer system must be considered as just one element of a healthy lifestyle.

No one, of course, can guarantee that you won't have problems even when you follow the most expert advice on using computer equipment. You should always check with a qualified health specialist if muscle, joint, or eye problems occur.

### Eye fatigue

Eye fatigue can occur whenever the eyes are focused on a nearby object for a long time. This problem occurs because the eye muscles must work harder to view an object that's closer than about 20 feet (6 meters). Improper lighting can hasten the development of eye fatigue. Although eye fatigue is annoying, there's no evidence that it leads to permanent damage.

Whenever you're engaged in an activity that involves close-up work -- such as reading a magazine, doing craft work, or using a computer -- be sure to have sufficient glare-free lighting and give your eyes frequent rest breaks by looking up and focusing on distant objects. Remember to have your eyes examined regularly.

To prevent discomfort and eye fatigue:

Arrange your work space so that the furniture is properly adjusted for you and doesn't contribute to an awkward working posture.

Take frequent short breaks to give your muscles and eyes a chance to rest.

### Arranging your office

Here are some guidelines for adjusting the furniture in your office to accommodate your physical size and shape.

An adjustable chair that provides firm, comfortable support is best. Adjust the height of the chair so your thighs are horizontal and your feet flat on the floor.

The back of the chair should support your lower back (lumbar region). Follow the manufacturer's instructions for adjusting the backrest to fit your body properly.

When you use the computer keyboard, your shoulders should be relaxed. Your upper arm and forearm should form an approximate right angle, with your wrist and hand in roughly a straight line.

You may have to raise your chair so your forearms and hands are at the proper angle to the keyboard. If this makes it impossible to rest your feet flat on the floor, you can use a footrest with adjustable height and tilt to make up for any gap between the floor and your feet. Or you may lower the desktop to eliminate the need for a footrest. Another option is to use a desk with a keyboard tray that's lower than the regular work surface.

If you use a mouse, position the mouse at the same height as your keyboard. Allow adequate space to use the mouse comfortably.

Arrange the computer so the top of the screen is slightly below your eye level when you're sitting at the keyboard. The best distance from your eyes to the screen is up to you, although most people seem to prefer 18 to 28 inches (45 to 70 cm).

Position the computer to minimize glare and reflections on the screen from overhead lights and windows.

#### Avoiding fatigue

Change your seated position, stand up, or stretch whenever you start to feel tired. Frequent short breaks are helpful in reducing fatigue.

Use a light touch when typing or using a mouse and keep your hands and fingers relaxed.

Some computer users may develop discomfort in their hands, wrists, or arms after intensive work without breaks. If you begin to develop chronic pain or discomfort in your hands, wrists, or arms, consult a qualified health specialist.

Allow adequate workspace so that you can use your keyboard and mouse comfortably. Place papers or other items so you can view them easily while using your computer. A document stand may make reading papers more comfortable.

Eye muscles must work harder to focus on nearby objects. Occasionally focus your eyes on a distant object, and blink often while you work.

Clean your screen regularly. Keeping the screen clean helps reduce unwanted reflections.

#### Caring for the Apple Adjustable Keyboard

Take care not to spill any liquid on the keyboard. If you do, turn off your Macintosh immediately.

If you spill liquid that is thin and clear, unplug the keyboard and tilt it to let the liquid drain out. Avoid letting the liquid run into the keys. Let the keyboard dry for 24 hours at room temperature. If, after you take these steps, the keyboard doesn't work, it may need to be repaired.

If you spill liquid that is greasy, sweet, or sticky, unplug the keyboard. Take it to your dealer or service provider.

To clean the keyboard, do the following:

1. Turn off your computer.
2. Disconnect the keyboard.
3. Wipe the surfaces lightly with a clean, soft cloth dampened with water.

#### Troubleshooting

This section provides solutions to some problems you might encounter.

##### Characters you type don't appear on the screen

In some application programs you cannot type characters unless you have selected a text tool. If you're working in such a program, check to be sure you're using the correct tool.

Some programs do not display typed characters. Make sure the active window contains a

document from a program that accepts typing.

To test the keyboard, place the pointer in the active window and click to set an insertion point or drag to select text (if applicable), then try typing again.

The keyboard may not be plugged in correctly. Turn off the Macintosh. Make sure the keyboard cable is plugged into an ADB port (marked with the icon ) and that all the cables are firmly attached.

An ADB cable may be defective. Inspect the cables for bent pins or other signs of damage, and make sure the plugs are firmly attached. Turn off the Macintosh and try using an alternate cable to connect the keyboard to the Macintosh. Restart your Macintosh and try typing again.

Characters keep repeating

Open the Keyboard control panel and choose a longer Delay Until Repeat setting.

When you try to open Key Caps you see a message

If you attempt to open the Key Caps desk accessory and you see the message, "There is no description for this keyboard," you need to install the keyboard software. See "Installing the Apple Adjustable Keyboard Software" earlier in this manual.

Key Caps shows a keyboard that doesn't look like the

Apple Adjustable Keyboard

The Macintosh did not detect the keyboard at startup. The probable cause is a bad connection. Turn off the Macintosh and check all the connections. Make sure the keyboard is plugged into an ADB port on your Macintosh and that all the cables are firmly plugged in.

Sound keys don't work

If the sound keys won't work to raise or lower the volume or mute sound, your application may be incompatible with the sound keys. Refer to the manual that came with your application.

You may need to reinstall the keyboard software. See "Installing the Apple Adjustable Keyboard Software" earlier in this manual.

Record key doesn't work but the other sound keys do

The program you're using can't record sound, or it can't respond to the Record key. Check the manual that came with the program or contact the program's manufacturer about obtaining an upgrade.

Moving the mouse doesn't move the pointer

The mouse may not be plugged in correctly. Turn off the Macintosh and check the connections.

The mouse may need to be cleaned. See the manual that came with your computer for instructions on cleaning the mouse.

The pointer moves too slowly

Open the Mouse control panel and choose a faster Mouse Tracking speed.

Specifications

## General

Total number of keys	111
Extended keypad	4-key inverted-T style cursor control keypad
Voltage	5 10% V DC
Storage temperature	-40° C to 47° C (-40° F to 116.6° F)
Operating temperature	10° C to 40° C (50° F to 104° F)
Operating humidity	95% maximum, noncondensing at 25° C to 40° C (77° F to 104° F)
Cables	1.0 m (40 in.) with coiled cord 220 mm (8.6 in.)
Typing key characteristics	
Typical distance between keys	19.05 mm (0.75 in.)
Total key travel	3.5 mm (0.138 in.)
Peak tactile force	0.69 0.25 N
Travel to peak tactile force	1.5+0.2/-0.4 mm 0.06+0.008/-0.016 in.
Contact closure	1.5 mm to 2.5 mm (0.06 in. to 0.10 in.)
Keyswitch minimum life	10,000,000 (10 million) cycles
Special function key characteristics	
Keyswitch minimum life	1,000,000 (1 million) cycles
Keyboard and keypad specifications	

	Keyboard	Extended keypad
Total keys	68	43
Printing keys	47	16
Escape key	1	
Power On key	1	
Sound keys	4	
Programmable function keys	15	
Special screen-editing keys	5	
Green LED Caps Lock indicator	1	

ADB 4-pin minicircular connectors	2	2
Height of home row	30 mm 1.2 in.	
Height (flip feet closed)	37.5 ± 1 mm 1.48 ± 0.04 in.	37.5 ± 1 mm 1.48 ± 0.04 in.
Depth	159 ± 1 mm 6.26 ± 0.04 in.	143.7 ± 1 mm 5.66 ± 0.04 in.
Width	386.6 ± 1 mm 15.18 ± 0.04 in.	248.3 ± 1 mm 9.78 ± 0.04 in.
Weight	1223 g 2.7 lb.	481 g 1.06 lb.
Keyboard/pad slope-flip feet closed	5	5
Keyboard/pad slope-flip feet extended	12.5	13
Keyboard opening angle (split)	0 to 30	
Power consumption	7 mA -- LED off 19 mA -- LED on	7 mA