

Wave® User Guide



Stenograph®

www.stenograph.com

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Stenograph Adjustable LCD Screen Assembly for Writing Machine. U.S. patent 7,403,375, filed May 27, 2005, and issued July 22, 2008.

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Congratulations on the Purchase of Your Wave!

We strongly encourage you to read this User Guide and practice using your writing machine according to the instructions contained therein. This will allow you to become comfortable and familiar with it before taking it on a job or into class.

Your Wave comes with rechargeable batteries: one main battery pack and an internal backup battery. Advanced battery technology prevents the batteries from overcharging so you don't have to worry about leaving the batteries on the charger overnight or over a weekend. Be aware that batteries are consumable items and are usually ready to be replaced every twelve to eighteen months.

EasyLock™ Z12 tripod positioning with a positive-locking mechanism provides quick and easy setup. Simply open and set the tripod on the floor and place your machine on it according to the instructions in this guide. The design of the tripod assures a smooth, even writing platform for you to enjoy.

You'll probably notice how light the Wave is - - just 4.7 pounds. The carrying case also lightens your load.

Remember to check the Stenograph® web site, www.stenograph.com, for updates to the Wave. The Wave was designed with you in mind. We know you'll enjoy using it!

STENOGRAPH, L.L.C.

The Importance of Working Comfortably and Effectively

Stenograph believes that the Wave shorthand machine, when used in compliance with the enclosed instructions and information, is safe. Certain sources, though controverted, suggest a relationship between injuries of the hands and forearms with prolonged use of any type of keyboard or other equipment involving repetitive movements of the hands. At the same time, other sources indicate that there is no such cause and effect.

Because the safety and well-being of persons using Stenograph equipment is of paramount concern and because we recognize that these medical and scientific questions are not definitively resolved, Stenograph encourages all users of our writers to carefully review the following Work Area Checklist and to use appropriate work habits.

Remember, personalizing your environment so that it is comfortable for you, promotes a healthy physical and mental work lifestyle.

The following Work Area Checklist is not intended to be all inclusive but a guideline for you to use. Only you can determine what is best for you. Use the checklist to assess and adjust your work area to suit your own needs. Personalizing your environment so that it is comfortable for you promotes a healthy physical and mental work lifestyle.

Work Area Checklist

At Your Wave

- ✓ Use a comfortable chair conducive to correct posture.
- ✓ Adjust the height of the shorthand machine appropriately for your body.
- ✓ Position the shorthand machine comfortably close to you.
- ✓ Place the tripod between your knees. Do not sit "sidesaddle".
- ✓ Minimize the use of the shorthand machine on surfaces other than the tripod stand.

At Your Computer

- ✓ Place the monitor screen perpendicular to the window to help avoid glare.
- ✓ Adjust or close window coverings.
- ✓ Arrange materials such as reference books or a telephone close to you to help avoid excessive reaching or twisting.
- ✓ Clear the area under and around the desk to leave room for your feet and legs.
- ✓ Remove sources of distraction around the monitor.
- ✓ Keep noise to a minimum.
- ✓ See accompanying materials provided by the computer keyboard manufacturer.

Your Body

- ✓ Take frequent breaks to stretch or exercise.
- ✓ Maintain a straight wrist position.
- ✓ Avoid resting your wrists while writing.
- ✓ Keep your hands level with your forearms.
- ✓ Let your fingers curve naturally.
- ✓ Let your forearm go up and down a little when you write, pivoting at the elbow, not at the wrists.
- ✓ Pull your steno machine comfortably close to you.
- ✓ Keep your feet on the floor or supported by a footrest.
- ✓ Support your lower back.
- ✓ Assure that your knees are bent at an angle of 90° or more and your thighs at an angle of 90° or greater in relation to your torso.
- ✓ Adjust the chair position and your posture throughout the day.
- ✓ If you experience any aching, numbing, or tingling in your arms, wrists, or hand, consult a qualified health care professional.

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Setting Up the Wave

Chapter 1, *Setting Up the Wave*, describes the steps to set up your new writing machine, charge the batteries, load the USB drivers and access the Wave tutorials. It also provides Technical Support contact information should you need additional assistance.

Package Contents

Review your package contents before setting up your Wave. Your new Wave comes with the following items:

- Wave
- Carrying case
- EasyLock™ Z12 tripod
- 1 main removable, rechargeable battery pack
- 110/220 AC adapter/charger
- USB cable (6 ft.)
- Optical-quality spray cleaner and cleaning cloth
- Stenograph One-Year Commercial Warranty document

Wave Features

Wave Front View

Depth of Stroke Wheel

Set the height of the number bar and all the keys to control how far down to stroke before the keys make contact.

Status LCD

Icons indicate active Wave operations.

Keyboard

Customizable keyboard depth and tension control.

Tilting Color Screen

High resolution WVGA display with "non-glare finish" to reduce glare.

Function Buttons

Perform a specific action as indicated on the menu.

Tension Control Wheel

Control how soft or firm the keys feels.



Wave Back View



1. USB B (client) port for realtime cable connection
2. Reset button
3. AC Adapter/charger for charging the Wave



Battery

Tripod Setup

Tripod setup includes attaching the Wave to the tripod, adjusting the tripod height, Wave tilt position and Tilting screen.

To use a different tripod with the Wave, it is necessary to remove the bottom plate on the tripod interface. Removing the bottom plate, also removes the tilting mechanism. Please visit the Stenograph Help Desk at www.stenograph.com for instructions on removing the Wave plate.

Attach the Tripod

The Wave uses only the EasyLock Z12 tripod designed with three straight legs and constructed of high gauge aluminum to provide a lightweight but strong and stable stand for your Wave. When folded, the tripod is 12 inches long.

1. Fully extend each leg of the tripod, making sure the braces lock.
2. Set the tripod on the floor.
3. Loosen the thumb-lock knob on the tripod base.
4. Extend the inner tripod tube to a comfortable height.
5. Turn the tripod head so that one of the flat sides of the tripod head is facing you.



EasyLock Z12 Tripod Head

6. Tighten the thumb-lock knob.
7. On the bottom of the Wave, locate the positive locking mechanism that looks like a large, round keyhole. The top of the EasyLock Z12 tripod fits like a key into the recessed tilt mechanism.
8. Lift the Wave on two sides of the machine and lower it evenly onto the top of the tripod with one of the flat sides of the writing machine facing you.



9. Grasp the inner tripod tube with one hand and with the other hand, rotate the machine clockwise until you hear a solid click. Ensure the Wave is firmly attached to the tripod tube.

Adjust the Tripod Height

1. Grasp the tripod tube firmly, directly beneath the Wave, with one hand.
2. Use your other hand to loosen the thumb-lock knob on the tripod. As you loosen the thumb-lock, support the weight of the Wave with your hand.
3. Adjust the Wave to the desired height.
4. Tighten the thumb-lock knob.

Adjust the Tilting Screen

1. Gently pull up on the display and adjust the tilt as necessary.
2. To fold it flat, gently pull down on the display. When the Wave is On and the display is folded flat, the display remains On.

Tilting the Wave

The Wave is constructed with a built-in recessed tilt mechanism. Once the Wave is secured on the tripod, tilt the writing machine forward or backward within 10 degrees to a position comfortable for your writing style.

To tilt the Wave:

1. Open the Tilting screen before adjusting the tilt position of the Wave.
2. Position one hand on the back of the Wave behind the Tilting screen and the other hand on the front of the machine under the vowel keys.
3. Gently lift up or push down to the desired position. The movement of the Tilting mechanism is stiff to ensure the position of the desired tilt is secure while writing.

Remove the Tripod

To remove the tripod, follow these steps:

1. Position the tripod firmly on the floor.
2. Locate the quick release lever on the left underside of the Wave.
3. Push the quick release lever towards the back of the Wave, then rotate the Wave counterclockwise one quarter of a turn.
4. Lift the Wave from the tripod.

Charge the Batteries

The Wave comes with one main rechargeable battery and an internal backup rechargeable battery. Stenograph recommends that you charge the batteries in your Wave before using it for the first time. Charging time for the main battery is approximately 4 - 5 hours. Be sure to review the additional battery charging details in the *Wave Features* chapter.

To charge your Wave batteries:

1. Ensure the main battery is in the Wave. For details about inserting the battery See [Changing the Battery](#) on page 22.
2. Plug the AC charger/adaptor into a wall outlet. Use only the AC charger/adaptor supplied with your Wave.
3. Insert the small plug on the AC adapter/charger cord into the **CHGR** socket on the back of the Wave.
4. The Wave turns On. A black dot in the lower right corner of the Status LCD indicates the Wave is On. A row of running blocks indicates the batteries are charging. Press the first gray button on the left side of the Wave to turn the writing machine On and Off.

If you plug your Wave in to charge and only the black dot displays, the batteries are charged. Charging is not necessary and no charging occurs.

Install the Wave USB Driver

Install the necessary Wave USB driver on your computer. The USB driver allows communication via USB cable between the Wave writing machine and your computer. This includes reading notes, realtime writing and installing updates.

The Wave USB device drivers are available for download from the Stenograph website at www.stenograph.com. At the Stenograph website: click Support, Download Center and Utilities & links. Right click the on the Stenograph Writer USB Drivers and select **Save Target as** or **Save Link as** and save the file to a location on computer desktop or your hard drive.

1. Turn your computer **On**. Ensure it is fully booted.
2. The Wave USB device drivers are available for download from the Stenograph website at www.stenograph.com. At the Stenograph website: click Support, Download Center and Utilities & links.
3. Right click the on the **Stenograph Writer USB Drivers** and select **Save Target as** or **Save Link as** and save the file to a location on computer desktop or your hard drive.
4. Navigate to the location where you saved the file, highlight the file, right click and select **Extract All**. Then double click the **StenographDriverInstall.exe** to install the drivers.

The Windows Security screen may display, prompting you to install the Stenograph L.L.C. Ports (COM & LPT) virtual serial driver. Click the option, **Always trust software from “Stenograph”** and then click **Install**. If a second prompt displays for the Stenograph USB Writer driver, click **Install**.

5. The Wave driver installation begins.
6. Once the drivers install, the Stenograph Writer Drivers Setup Complete dialog box displays. Press **Enter** (Finish) to close the wizard.

Wave Technical Support

If you encounter a problem you cannot solve, a Wave Support Specialist is available to assist you at:

1.800.323.4247 or 1.630.532.5100, touch 2, then 2

8:00 a.m. to 6:00 p.m. (CT)

Monday through Friday

Excluding Stenograph Holidays

To assist the Specialist, have the Wave with you, know your customer number and know your Wave serial number. The serial number is located on the bottom of the writing machine. Be prepared to describe your question or problem in detail.

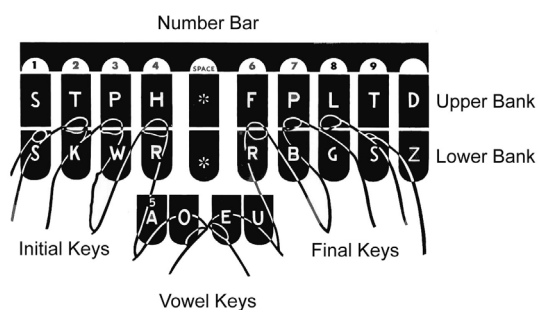
Additional Help topics are available at www.stenograph.com. Click **Support, Solution Center**.

To order accessories, visit www.stenograph.com.

Understanding the Shorthand Machine

Chapter 2, *Understanding the Shorthand Machine*, provides an overview of the machine shorthand keyboard. It also describes machine shorthand and how an individual uses the writer.

The shorthand machine is designed to accurately make a written record of spoken words at high speeds. Using sounds instead of spelling out each letter, a machine shorthand writer presses down several keys at once to record a word. This is much faster than a typewriter or computer keyboard where you can only press one key at a time. This means that the machine shorthand writer, using sounds, can write whole words or even a phrase in just *one* downward motion of their fingers.



As you look at the front of your writer, notice that the keyboard is divided into four sets, or banks, of keys:

- *Number Bar*—the long solid bar at the top of the keyboard.
- *Upper Bank*—the row of 10 keys just below the number bar.
- *Lower Bank*—the remaining consonant keys located below the Upper Bank.
- *Vowel Keys*—the four keys at the front of the keyboard.

The Upper and Lower banks of keys to the left of the asterisk are the Initial keys. These consonants are generally used to begin a word. The Upper and Lower bank of keys to the right of the asterisk are the Final keys. These constants are generally used following the vowels to end a word or abbreviated phrase.

The Number Bar is used in conjunction with the upper bank of keys to write numbers. When the Number Bar is depressed along with the initial "S" on the left side of the keyboard, it produces the number 1. When the Number Bar is depressed with the initial "T" it produces the number "2" and so on. The Number Bar depressed with the asterisk key produces a space in the steno notes.

The asterisk key produces an asterisk. The asterisk symbol is generally used to denote a mistake, indicate a correction, or to distinguish homonyms.

Similar to a typewriter, your fingers have a home position on the keyboard as shown in the previous diagram. Notice that the Vowel keys are slightly lower than the other three banks of keys. This allows for the natural position of your thumbs.

Unlike the typewriter where each key is pressed one at a time, any number or all of the keys on a shorthand machine can be "stroked," or pressed down at the same time. This means that a machine shorthand writer can write an entire word, syllable, or phrase in just one stroke. Although the keyboard does not contain all the letters of the alphabet, letters are used in combination to identify the remaining consonants. You will also notice, that while some letters do not appear at all, other letters appear twice.

The machine shorthand keyboard was designed to write sounds. Most word and syllable sounds begin with one or more consonants, followed by a vowel, and end with one or more consonants. For example: R E D; SH O P; ST A RT. While the machine shorthand writer may write words exactly as they are spelled, R E D or SH O P, they often are writing the words or syllables as they phonetically hear them. For example, in two strokes they may write "courthouse"-- K O R T/H O U S or "workhorse"-- WORBG/ HORS. The writer may also record an entire phrase in just one stroke, "state your name"-- ST A U R PL or "could you tell us" -- KOOTS. The machine automatically creates spaces between the strokes, so the writer never needs to take their fingers off the keyboard to press a Return or Enter key.

Computer software translates each stroke or group of strokes immediately into text by comparing the strokes to an electronic table of words and phrases called a "dictionary." This dictionary automatically provides for correct spelling of words, punctuation and spacing between words. Once the steno strokes are translated into words, text editing software is used to make corrections and to produce a final printed transcript.

The first shorthand machines were developed in the late 1800s and have evolved over time to the present-day Wave. To learn more about the evolution of the shorthand machine that brought the technology to this point, visit www.stenograph.com and view "The History of Machine Shorthand."

Wave Hardware Features

Chapter 3, *Wave Hardware Features* provides information about the hardware components of your Wave. This includes details on battery charging and use; communication port and setup; function buttons for accessing menus; Status LCD icons; adjusting the Tilting screen; personalizing the opening graphic and resetting the writing machine.



Batteries

The Wave comes with one main rechargeable battery, an internal backup rechargeable battery and an AC adapter/charger. You can operate your writing machine on battery power, using the AC adapter/charger without the main battery or using the AC adapter/charger with the main battery charging. Although you can use the Wave with the AC adapter/charger, Stenograph recommends that you charge the battery in your Wave before using it for the first time.

The main battery, fully charged, operates all the features on the Wave for approximately 8 - 10 hours. Charging time for the main battery is approximately 4 - 5 hours.

The internal backup battery provides a FailSafe mode if the charged level of the main battery becomes too low and you are not using the AC adapter/charger. In FailSafe mode, the Tilting screen turns Off. Your steno notes continue to be written to and stored in the Memory and sent to the realtime screen, if writing realtime. The backup battery operates for approximately 8 hours and charges at the same time the main battery is charging.

A third, small internal battery functions to retain the Wave date, time and user settings. This battery has a lifespan of approximately 10 years.

It is not necessary to keep the Wave plugged into the AC adapter/charger when not in use for long periods of time. If you have an additional main battery pack, Stenograph recommends alternating the batteries monthly.

Charging the Batteries

When the Wave is powered by the AC adapter/charger, both the main battery and backup battery levels are automatically maintained. The batteries fully charge in 4 -5 hours. You can use your writing machine while the AC adapter/charger charges the batteries.

The Wave batteries only charge when low. Once the batteries are charged, it is not necessary to keep the writing machine plugged into the AC adapter/charger, however, keeping the writing machine plugged in does not damage the batteries.

Use only the battery charger supplied with the Wave. Chargers designed for other Stenograph writing machines do not power the Wave. Although the Stentura® charger fits the Wave, it does not charge the Wave battery.

Battery Charging Procedure

To charge your Wave batteries, follow these steps:

1. Ensure the main battery is in the Wave.
2. Plug the AC charger/adapter into a wall outlet.
3. Insert the small plug on the AC adapter/charger cord into the **CHGR** socket on the back of the Wave.

- The Wave turns On. A black dot in the lower right corner of the Status LCD indicates the Wave is On. A row of running blocks indicates the batteries are charging. If you plug your Wave in to charge and only the black dot displays, the batteries are charged. Charging is not necessary and no charging occurs.

You can use the Wave while the batteries charge. When you begin writing, the running blocks do not display but the Wave continues to charge. See [Status LCD](#) on page 30 for more information about Status LCD indicators.

To turn the Wave Off while charging the batteries, press the On/Off button. Although the Tilting screen turns off, the Wave remains On while charging as indicated by the black dot on the Status LCD.

View Battery Charging Status

The Tilting screen and the Status LCD display graphic indicators that reflect the charging status of both the main and backup battery. To view specific battery voltage levels, current charging status and the most recent charging history, See [View Battery Voltage Levels](#) on page 19.

When the AC adapter/charger is connected to the Wave charging the batteries, the title bar on the Tilting screen displays a battery icon with the battery gauge showing running black and yellow stripes. When the batteries are fully charged, a plug icon replaces the battery icon until you disconnect the AC adapter/charger.



Battery Charging



Battery Fully Charged

When the main battery is charging, the Status LCD displays black bars in running sequence from left to right. The black bars are not visible when you are writing, but redisplay when you close the job. When the Wave is finished charging, the bars move from each side of the screen to the middle of the screen in a “clapping” motion. If the AC adapter/charger is plugged in for a long time, the “clapping” motion stops, however the battery is fully charged.

When the backup battery is charging along with the main battery, the battery icon displays on the Status LCD along with black bars in running sequence from left to right. When the backup battery is fully charged the battery icon no longer displays.

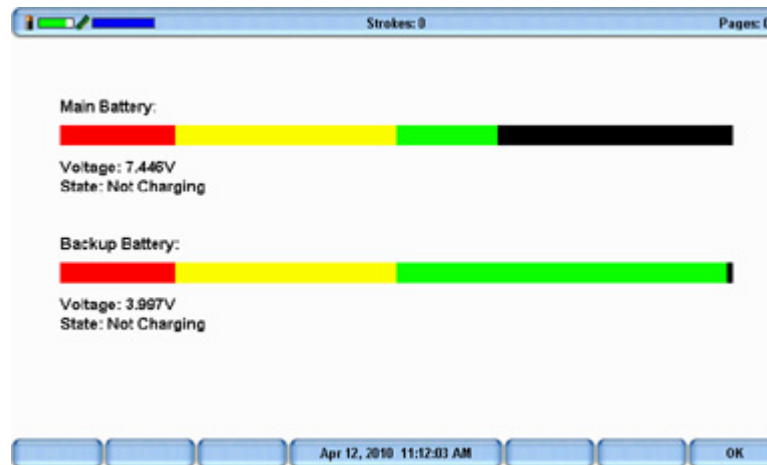
View Battery Voltage Levels

The Battery diagnostic screen displays the voltage level, charging status and most recent charging history for the Wave batteries. This includes both the main battery and the backup Lithium ion battery.

To view battery voltage and charging status:

- Make sure the charger/adaptor is not plugged into the Wave. If you just disconnected the charger/adaptor from the Wave, turn the Wave **On** and wait 10 – 15 minutes to get an accurate battery voltage reading.

- From the Opening menu, **Diag** and then press **Battery**. The battery status screen displays.



Wave Battery Status Screen

- Review the following battery information:
 - Indicator bar**—provides an approximate indication of the battery voltage level. Green indicates the battery is fully charged; yellow indicates it is charged and red indicates it is low.
 - Voltage**—the actual voltage amount. A main battery reading of 7.4 volts or higher indicates normal operating voltage. 7.0 volts or below indicates the battery is very low and indicates approximately one hour of operating time remaining.

A backup, Lithium Ion, battery reading of 3.9 or above indicates the backup battery is charged and does not charge when the adapter/charger is attached; 3.8 or below indicates the backup battery needs charging and automatically charges when the charger/adapter is attached.
 - State**—the most recent charging history. When checking battery status with the adapter/charger not attached, the message *Not Charging* displays. If the adapter/charger was removed before the charging is complete, an *INCOMPLETE* message displays along with a *Cause of Failure* message indicating the charger was removed.
- To display the Opening menu, press **OK, Quit**.






Low Battery Warnings

As the main battery becomes progressively low, the Wave displays warnings using the battery gauge on the title bar of the Tilting screen and messages on the Status LCD. When the main battery becomes low while connected to a computer with a USB cable, low battery messages continue to display until the battery is depleted. All the features continue to operate. See [Powering With the USB Cable](#) on page 23.

Use the Wave Diagnostic feature to check the specific voltage levels of the batteries. See [View Battery Voltage Levels](#) on page 19.

Battery Gauge

The battery gauge on the title bar of the Tilting screen provides a general indicator of the main battery voltage level. It changes appearance as the voltage level of the battery changes:

- —an electrical plug with a full green gauge indicates the Wave is plugged into the AC adapter/charger and the main battery is fully charged.
- —a battery with a full green gauge indicates the main battery is fully charged. As the charge of the battery level drops, the green bar becomes smaller.
- —a battery with a partial yellow gauge indicates the battery is low.
- —a battery with a short red gauge indicates the battery is almost completely drained. The battery icon flashes on and off.
- —a battery with black and yellow running stripes indicates the Wave is plugged into the AC adapter/charger and the batteries are charging.

Tilting Screen Battery Messages

The Tilting screen displays four progressive warning messages as the main battery level becomes low and requires recharging:

- Main battery, Danger -- Battery Low.
- Main Battery, Danger -- Recharge Battery Now.
- Main Battery, Battery Dead -- Switching To FailSafe...
- Main Battery, Battery Dead -- Recharge Battery Now!

If the Wave is connected to a computer with a USB cable, low battery messages display but all the features continue to operate. See [Powering With the USB Cable](#) on page 23.

Changing the Battery

To remove and replace the Wave main battery:

1. Place the palm of your hand squarely against the back of the Wave on the battery. Grasp the back portion of the battery with your two middle fingers.
2. Pull the battery gently away from the Wave.



3. To replace the battery, slide it into the slot.
4. Press the battery firmly until it locks into place.

Communication Port

There is one USB port on your Wave which provides connection access for the USB realtime cable between the writing machine and the computer.



To use the USB cable for realtime writing or reading notes from Memory, you must install the Wave USB driver on your computer. See [Installing the USB Drivers](#) on page 63.

Powering With the USB Cable

When the Wave is connected to your computer for realtime via a USB cable, the main battery continues to power the writing machine. In most situations, the USB port can power the Wave when the main battery is not charged or you want to run on USB power without the battery. It is not necessary to remove an uncharged battery to run on USB power.

When the main battery becomes low while using a USB connection, low battery messages display on the Wave, but all features continue to operate. The USB port provides power to run all the Wave components. When powered by the USB port, the Wave Tilting screen displays at about half of the Backlight brightness setting.

Updating With the USB Cable

Software updates for your Wave, when available, can be easily downloaded from the Stenograph web site. Once downloaded onto your computer, you can load the software update onto your Wave over a USB cable. See [Updating Wave Software](#) on page 67 for more information about updating the Wave.

Connect for Realtime Writing

To connect your Wave to your computer for realtime writing, you must have **one** of the following:

- a USB cable connection which requires using a USB compatible CAT software, such as Case CATalyst version 4.096 or higher. A USB cable is included with your Wave. Check with your CAT software vendor for compatibility information.
- a virtual serial port connection via USB cable. The virtual serial port connection is compatible with any CAT software that accepts a serial connection and Stentura protocol. See [USB Virtual Serial Port Communication](#) on page 25.

USB Cable Communications

You must be using USB compatible CAT software and have installed the Wave USB driver on your computer. See [Installing the USB Drivers](#) on page 63 for instructions on loading the driver.

1. Ensure your Wave and computer are turned **On** and are fully booted.
2. Each end of the USB cable has a different connection plug. Insert the appropriate end of the USB cable into the USB port on the back of the Wave and the other end into a USB port on the computer.



Windows® XP

Insert the USB cable into the computer USB port on which you loaded the Wave USB driver. See [Installing the USB Drivers](#) on page 63 for more information.

3. Start your CAT software.
4. Set your realtime options. In Case CATalyst V11 and higher, select **Wave - USB** on the Translate Realtime tab. In Case CATalyst V4.096 - V10, select **élan - USB**.

This is a USB connection. COM port settings do not apply.

5. Write a few strokes on the Wave before starting realtime.

If the USB realtime connection is active when you break, the realtime screen may not display new steno strokes when you resume writing. This may happen when the USB port becomes inactive after remaining idle for a period of time. If this occurs, disconnect the USB cable from the back of the Wave and reconnect it. The realtime file is not affected. Reconnect the cable to display the new steno strokes on the realtime screen. See [Troubleshooting](#) on page 61 for details on disabling USB port power saving features to avoid an inactive connection.

If the Memory becomes full while writing realtime, the realtime display on the Wave stops scrolling; however, the Wave continues to send steno notes to the CAT system.

6. When you are finished writing realtime using a USB cable, it is important that you complete the following steps in order. This ensures your computer shuts down properly.
 - a. Press **End** on the Wave to close the file.
 - b. Close and save the realtime file.
 - c. Unplug the Wave USB cable from your computer and the Wave.

USB Virtual Serial Port Communication

You must have installed the Wave virtual serial port driver on your computer. The virtual serial port driver installs when you install the USB driver. The virtual serial port uses Stentura protocol for realtime communications and reading notes. See [Installing the USB Drivers](#) on page 63 for instructions on loading the driver.

When using a virtual serial port connection, the realtime connection becomes inactive if you disconnect the USB cable and remains inactive even if you reconnect the cable. For example, you disconnect the USB cable to report a bench conference and then reconnect the cable when finished. The current realtime does not reconnect. It is necessary to open a new realtime file.

If you leave the USB realtime connection active when you take a break, the realtime screen may not display the new steno strokes when you resume writing. This is a function of the USB port becoming inactive when it remains idle for a period of time. If the virtual serial port communication becomes inactive, you cannot reconnect to the realtime file. It is necessary to start a new realtime job. See [Troubleshooting](#) on page 61 about disabling power saving features on the USB port to avoid an inactive connection.

To establish USB virtual serial port communication:

1. Ensure your Wave and computer are turned **On** and are fully booted.
2. Each end of the USB cable has a different connection plug. Insert the appropriate end of the USB cable into the USB port on the back of the Wave and the other end into a USB port on the computer.



Windows XP

Insert the USB cable into the computer USB port on which you loaded the Wave USB driver. See [Close Device Manager](#) on page 65 for more information.

3. Start your CAT software.
4. Set your realtime options. This is a virtual serial port communication via USB cable. Ensure the appropriate COM port is selected. Depending on your CAT software, it may be necessary to select *Stentura* as the realtime writing machine.
5. Write a few strokes on the Wave before starting realtime.

If the Memory becomes full while writing realtime, the realtime display on the Wave stops scrolling; however, the Wave continues to send steno notes to the CAT system.

6. When you are finished writing realtime using the virtual serial port connection, it is important that you complete the following steps in order. This ensures your computer shuts down properly.
 - a. Press End on the Wave to close the file. If the option, Prompt to confirm ending job is active, press End again at the prompt.
 - b. Close and save the realtime file.
 - c. Unplug the Wave USB cable from your computer and the Wave.

Function Buttons

On either side of the Status LCD are three soft gray function buttons. The far left button turns the Wave On.



Each button serves a specific purpose, or function, on the different menus. The menu bar is located at the bottom of the Tilting screen. Press the associated button, just below a function on the menu bar, to perform the action. For example, on the Opening menu, the word **Off** displays above the left most button. Pressing Off turns the Wave Off. Again, on the Opening Menu, press the **Setup** button to display another menu listing additional menu choices related to customizing your Wave, such as display settings.

Keyboard Depth and Tension Controls

There are two thumbwheels on the Wave, one on each side of the keyboard, that control the keyboard depth and keyboard tension.



The depth of stroke adjustment wheel, on the left, determines the height of the number bar and all the steno keys. This affects how far the keys go down when you press them.

The keyboard tension adjustment wheel, on the right, controls how soft or firm the keys feel. An extensive range, between the top and bottom stopping positions of the wheel, allows you to customize the tension to your particular writing touch. Do not force the wheel past either stopping position.

Adjust Depth of Stroke

To adjust the depth of stroke:

1. Face the front of the Wave.
2. Do one of the following:
 - To shorten the stroke depth, roll the left thumbwheel toward the front of the Wave.
 - To lengthen the stroke depth, roll the left thumbwheel toward the back of the Wave.

Adjust Keyboard Tension

To adjust the keyboard tension:

1. Face the front of the Wave.
2. Do one of the following:
 - To decrease keyboard tension for a softer touch, roll the right thumbwheel toward the front of the Wave.
 - To increase keyboard tension for a firmer touch, roll the right thumbwheel toward the back of the Wave.

Reset

The Reset button is a small, recessed button located on the back of the Wave to the left of the AC Adapter/Charger port.



Like other computer equipment, the Wave can seem unresponsive when it receives a series of commands it does not recognize. **If the Wave appears unresponsive, press the Reset button on the back of the Wave.** When you press the Reset button, the Wave reboots and is then ready to use.

If you had a file open before pressing Reset, the Wave ends the job and the file closes. Start writing to create a new job.

Status LCD

Located between the gray function buttons is a small rectangular LCD screen. The Status LCD displays icons that indicate specific operations of the Wave. When battery power is low enough to turn off the Tilting screen, the Status LCD continues to show information, indicating the writing machine is still working.

The Status LCD provides the following information:

- A black dot (●) displays in the lower right corner of the screen indicating the Wave is On.
- The file open (📄) icon displays when you begin writing on the Wave, indicating a file is open.
- The realtime indicator (🔌) displays when the Wave is connected to a CAT system with a USB connection or virtual serial port connection using a USB cable for writing. The icon only displays when there is an active realtime connection. When you end realtime or disconnect the cable, the icon does not display.
- The battery (🔋) icon displays when the backup battery is charging. The backup battery is automatically maintained when charging the main battery. This icon does not display if the backup battery does not need to be charged.
- A row of rectangular black blocks (■■■) display in running sequence from left to right when the main battery is charging. When the Wave is finished charging, the bars move from each side to the middle of the screen in a “clapping” motion. If you leave the AC adapter/charger plugged in for a long time, the “clapping” motion stops, however the battery is fully charged.
- A single black rectangular block (■) displays when you press a key. There is a corresponding block for each letter on the keyboard. Which block displays depends on the key stroked. A block displays for each key in the following order:

S T K P W H R A O * E U F R P B L G T S D Z

Stroking the number bar along with a key displays the # sign on the left-most side of the Status LCD and the single black rectangular block for the key pressed.

Tilting Color Screen

The Wave tilting screen is a high resolution, color, WVGA display. The “non-glare finish” reduces glare from overhead lights. The display folds flat for storage or transport and opens with a tilt range to accommodate your personal viewing preference.

To use the Tilting screen, gently pull up on the display and adjust the tilt as necessary. Gently pull down on the display to fold it flat. When the Wave is On and the display is folded flat, the display remains On.

Depending on the selected function, the Tilting screen shows:

- the title bar with a battery icon, battery gauge reflecting the approximate main battery level, the memory capacity indicator, the number of steno strokes for the open file and the estimated number of pages for the open file.
- steno notes.
- menu bar from which you select options or perform an action.
- warning messages, such as “Low Battery”.

You can adjust the brightness and font size on the Tilting screen. Adjusting the brightness can reduce battery usage. See [Tilting Screen Appearance](#) on page 56 for more information about brightness and font size settings.

Cleaning the Tilting Screen

1. Turn the Wave **Off**. It is easier to see the areas that are dirty when the screen is dark.
2. **Very gently** wipe the screen using the cleaning cloth that came with your Wave or a microfiber cloth available in computer, camera and eyeglass stores.

Do not use materials such as paper towels, tissue paper or your shirt sleeve. These non-ultrasoft materials can easily scratch the screen.

Do not press hard on the screen. Pushing directly on the Tilting screen can cause pixels to burn out.

3. If the cloth does not completely remove the dirty areas, dampen the cloth with the optical-quality spray cleaner that came with your Wave or a cleaner designed for flat screen monitors or eyeglasses, and **very gently** wipe the screen.

Do not spray the display screen directly. Liquid can run along the inside the edge of the screen and cause damage.

Never use cleaning products that contain ammonia, ethyl alcohol, acetone, toluene, ethyl acid, or methyl chloride. These chemicals can react with the materials in the display screen and cause damage.

Clean the plastic edge that surrounds the screen with any multipurpose cleaner using a soft cloth. Avoid contacting the screen itself with the cleaner.

Writing on the Wave

Chapter 4, Writing on the Wave, details all the Wave menu features including setting options, viewing and erasing memory, accessing Test Mode and marking, scrolling and searching steno notes.

Stenograph recommends that you charge the battery in your Wave before using it for the first time. See [Charge the Batteries](#) on page 11 for information.

The Wave offers the following features:

- Steno outlines display on a seven inch color, non-glare Tilting screen.
- View steno outlines in Vertical Note format.
- Realtime ready through USB or virtual serial port.
- Adjustable digital clock with month, date, and time.
- Adjustable beeper volume.
- Set the Tilting screen brightness and font size.
- Update Wave software from Internet download via USB.
- Date and timestamp note files.
- Search for the last StenoMark or steno string.
- Scroll forward and backward in a file.

Accessing Wave Features

When you turn the Wave On, the Opening menu displays. The Opening menu is accessible when not writing on the Wave.



Opening Menu

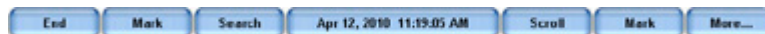
Opening Menu

From the Opening menu, you can:

- view and erase Memory.
- view Wave status information.
- set the time.
- adjust the Tilting screen display.
- access test mode.
- set options including backlight, beeper volume, keyboard layout and options, prompt to end a job, display strokes per minute and USB communication.

Writing Menus

Once you begin writing on the steno keyboard, the first of two Writing menus replaces the Opening menu.



First Writing Menu

The First Writing menu includes features that allow you to:

- close the file.
- insert electronic marks.
- search for last Mark or specific steno strokes.
- scroll the steno notes.
- access the second Writing menu.

Second Writing Menu

Pressing **More** on the First Writing menu displays the second Writing menu.



Second Writing Menu

The second Writing menu includes features that allow you to:

- view Wave status information.
- adjust Tilting screen steno note font size and backlight level.
- access the First Writing menu.

Return to First Writing Menu

Continue writing or pressing **More** on the second Writing menu returns you to the First Writing menu.

Return to Opening Menu



Pressing **End** on the First Writing menu closes the current job and returns you to the Opening menu.

Writing Jobs

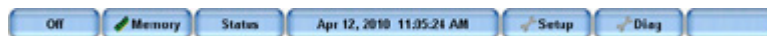
To begin writing:

1. Turn the Wave **On**. Press the first function button on the left.
2. The Wave logo displays briefly on the Tilting screen followed by the title bar across the top of the screen and the Opening menu at the bottom.
3. The Title Bar shows the following information:



- —the approximate amount of charge remaining for the main battery. When the gauge is completely green, the battery is fully charged. As the battery level changes or the Wave is charging, the gauge changes. See [View Battery Charging Status](#) on page 19 for more information.
 - —the approximate amount of space remaining in the Memory. See [Memory](#) on page 45 for more information.
 - *Strokes*—the number of steno strokes written for the open file.
 - *Pages*—the estimated number of text pages in the open file.
4. Wave menus allow you to perform a function, select to display another menu or to set options.

The Opening menu is used to select options prior to writing.



5. When you write a steno stroke, the Wave opens a new file and replaces the Opening menu with the first of two writing menus.



6. To close the job when finished writing, press **End**. The Wave writes the steno to Memory and closes the current file.

If the option, *Prompt to confirm ending job* is active, a confirmation prompt displays. Press **End** to close the job or continue writing to cancel the message.

The Wave stores steno notes to Memory. The file naming convention uses a year, month, date and time format. For example: 20100616 - 142341 (June 16, 2009 at 2:23:41 p.m.). Job files are stored in folders identified by year and month. For example, 201006. By default, the newest file is listed first.

7. To turn the Wave Off, press the **Off** button on the Opening menu.

Beeper Volume

The Wave has a beeper to alert you to specific messages on the Tilting screen, such as *Low Battery*.

To adjust the beeper volume:

1. From the Opening menu, press **Setup, Options**.
2. Press the **Up** and **Down** buttons as necessary to highlight the *Beeper Volume* option.
3. Press the **Change** button to toggle the Beeper volume between Soft and Loud. The Wave emits a softer or louder tone indicating the volume level selected.
4. To display the Opening menu, press **OK, More, Quit**.

Copy Log

In the rare instance your Wave experiences an error or an exception, Copy Log automatically saves the information to a log file. Technical Support may ask you to send the information to Stenograph for analysis.

To copy the error information:

1. From the Opening Menu, press **Diag, Copy Log**. The Wave copies all the appropriate log information to the Support Info Files folder.
2. To return to the Opening menu, press **Quit**.
3. Use the GetSupportInfo utility to transfer the log error information from the Wave Support Info Files folder to your computer. See [Wave Utilities](#) on page 69 for instructions.

Display Set Strokes Per Minute

The Display Set Strokes Per Minute (SPM) option allows the average number of strokes per minute to display on the Title bar and Status screen. The Title bar shows the approximate number of strokes per minute, SPM, while writing. The Status screen shows strokes per minute data for the most recent job. While writing, the Status screen shows strokes per minute data for the current job.

1. From the Opening menu, press **Setup, Options**.
2. Press the **Up** and **Down** buttons as necessary to highlight the *Display Strokes per minute (SPM)* option.
3. Press the **Change** button to toggle the option between Yes and No. Yes is the default.
4. To display the Opening menu, press **OK, More, Quit**.

Electronic Marks

Use the Mark function to electronically mark locations in your steno notes. You can use the Search feature to locate the Marks in the file.

To mark your steno notes:

1. From the First Writing menu, press either **Mark** button. The symbol, ! , displays in the steno notes to indicate the insertion of an electronic mark.
2. Continue writing.

Keyboard Layout

Keyboard Layout is designed for international use of the Wave. Changes to the Keyboard Layout should only be made when your steno keyboard layout uses a specific language steno theory.

1. From the Opening menu, press **Setup, Options**.
2. Press the **Up** and **Down** buttons as necessary to highlight the *Keyboard Layout* option.
3. Press the **Change** button to cycle through the available keyboard.
4. To display the Opening menu, press **OK, More, Quit**.

Keyboard Options

The majority of Wave users successfully adjust their keyboard accuracy using the depth of stroke and the tension control adjustment wheels. Occasionally, when a very short depth of stroke is used or after adjusting the tension control and depth of stroke, you may continue to experience stacking or splitting. The Keyboard options allow you to further customize the keystroke interaction to your writing style.

See [Keyboard Depth and Tension Controls](#) on page 28 to make keystroke depth and tension adjustments.

Adjust Keyboard Options

1. Using Case CATalyst or the TrueView utility, review the TrueStroke data for recent jobs to help diagnose keystroke issues. See [TrueView](#) on page 73 for more information.
2. Make adjustments to the keyboard depth of stroke and tension control settings. See [Keyboard Depth and Tension Controls](#) on page 28 for details.
3. Turn on CNN or the equivalent and write against the broadcast for 20 - 30 minutes.
4. If you continue to experience keystroke issues, make further adjustments using the Keyboard Options. From the Opening Menu, press **Setup, More, Keyboard**.
5. Perform the adjustments according to the following priority list to ensure optimal keystroke performance. Use the **Up/Down** buttons to highlight an option.
 - a. **Keyboard Sensitivity**—Adjusts the overall keyboard sensitivity. This may be particularly necessary when your depth of stroke is very shallow. It is strongly recommended that you select the first available setting and assess the change. Turn on CNN or the equivalent and write against the broadcast for 20 - 30 minutes.

The default setting is Medium. Use the + and - buttons to select one of the following:

- **Low**—A key or keys show that you do not want in your steno outlines (shadowing).
 - **High**—A key or keys you want are not in your steno outlines (missed or dropped).
- b. **Split/Stack Adjustment**—When you experience splitting steno outlines or multiple steno outlines becoming one, adjust the *Split/Stack Adjustment* setting. It is strongly recommended that you select the first available setting and assess the change. Turn on CNN or the equivalent and write against the broadcast for 20 - 30 minutes.

The default setting is Balanced. Use the + and - buttons to select one of the following:

- **Less Splitting 1**—Multiple steno outlines show in your steno notes that are intended to be one stroke.
 - **Less Stacking 1**—Single steno outlines show in your steno notes that are intended to be two strokes.
- c. **Transition Time**—Transition time is the number of milliseconds that pass between the release of a key stroke and when the Wave recognizes the next key stroke. This can affect the stacking or splitting of strokes. If you experience stacking or splitting steno notes, adjust the *Split/Stack Adjustment* option first.

- d. Set the *Split/Stack Adjustment* option to “Balanced” before changing the *Transition Time* setting. It is strongly recommended that you select a small increment and assess the change. Turn on CNN or the equivalent and write against the broadcast for 20 - 30 minutes.

The default setting is 8 milliseconds. Use the + and - buttons to choose a number between 2 and 66.

- **Increase the transition time setting**—Split steno outlines continue to show in your steno notes.
- **Lower the transition time setting**—Stacked steno outlines continue to show your steno notes.

- e. **Return to Factory Default Settings**—Returns all the keyboard options to the default factory settings. Use the + or - button to select **Yes**.

6. To return to the Opening menu, press **OK, Quit**.

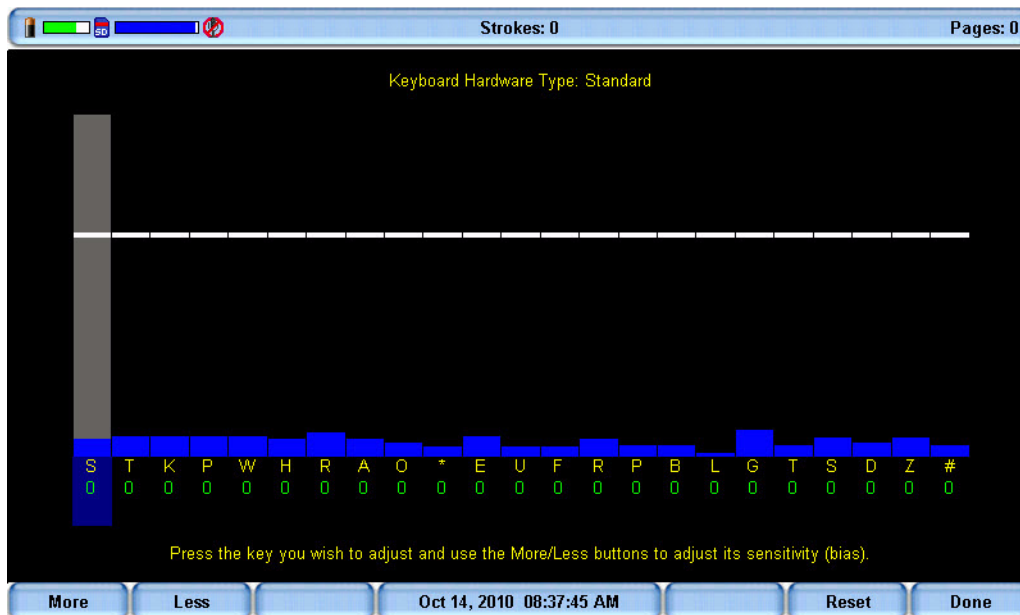
Adjust Individual Keys

Adjust individual keys only when a dragged or dropped key continues to occur after adjusting the depth of stroke, the keyboard tension and making appropriate changes to keyboard options. Carefully follow all the steps in “Adjust Keyboard Options” before making adjustments to individual keys.

Complete the following steps:

1. Ensure the depth of stroke is customized to your writing style. See [Keyboard Depth and Tension Controls](#) on page 28 for details.
2. Access the Adjust Key option. Press **Setup, More, Keyboard, Adjust Keys**.

3. The Keyboard Hardware Type screen displays.



Keyboard at rest with the deepest depth of stroke setting.

The line of white bars at the top of the screen represents the bottom of the keyboard. The horizontal position of the line varies depending on the depth of stroke setting. For example, a deeper depth of stroke places the line closer to the top of the screen. Each individual bar indicates the point the key must reach or move slightly past in order to register as a stroke. The number below each key is the current setting. Zero is the factory default.

4. Press and release the key you want to adjust. The gray vertical bar highlights the key selected for adjustment.
5. Perform one of the following adjustments:
 - **More**—Increase the key sensitivity when the key is not showing in the steno notes and you want it to register. Increase the sensitivity using increments of 5. It is strongly recommended that you make the first incremental setting and assess the change. Turn on CNN or the equivalent and write against the broadcast for 20 - 30 minutes.
 - **Less**—Decrease the key sensitivity when the key is showing in the steno notes and is not wanted. Decrease the sensitivity using increments of 10-15. It is strongly recommended that you make the first incremental setting and assess the change. Turn on CNN or the equivalent and write against the broadcast for 20 - 30 minutes.
 - **Reset**—Return all the key settings to the factory default.
6. When finished, press **Done**.

Memory

The Wave uses Memory to store steno notes and timestamp files. Steno note files stored in Memory remain even when you turn the Wave Off. There is 12,000 strokes of Memory on the Wave or approximately 50 pages. If the Memory becomes full while writing realtime, the realtime display on the Wave stops scrolling; however, the Wave continues to send steno notes to the CAT system.

View Memory Files

The Memory screen displays the list of files in a year, month, date and time format: 20090716 - 142341 (July 16, 2009 2:23:41 p.m.). By default, the newest file is listed first. The file size and the estimated number of transcript pages shows for each file.

Timestamp files are part of the steno note file. They are not visible in the list.

To view Memory files:

1. From the Opening menu, press **Memory**.
2. Steno note files display with the newest folder first. Use **Date Sort** to toggle files between ascending and descending order.
3. Press the **Up** and **Down** buttons to move to the desired folder and press **Folder**.
4. A list of files contained in the folder displays with the newest folder first. Use the **Up** and **Down** button and **Date Sort** to view the files.
5. To return to the first Memory screen, press **Back**.
6. To return to the Opening menu press **Quit**.

Read Steno Notes from Memory

You can read steno notes from Memory into your CAT software via USB cable or USB virtual serial port connection. The Memory screen displays the list of files in a year, month, date and time format: 20090716 - 142341 (July 16, 2009 2:23:41 p.m.). By default, the newest file is listed first. The file size and the estimated number of transcript pages shows for each file. Timestamp files are part of the steno note file. They are not visible in the list.

USB Cable Connection

To use a USB cable for reading steno notes, you must be using USB compatible software, such as Case CATalyst V4.096 and higher; have CAT software that supports the reading of steno notes from a Stentura; and have installed the Wave USB driver on your computer. See [Installing the USB Drivers](#) on page 63 for instructions on loading the driver.

To read steno notes via USB cable:

1. Turn your computer and Wave **On**. Allow your computer to boot completely.
2. Each end of the USB cable has a different connection plug. Insert the appropriate end of the USB cable into the USB port on the back of the Wave and the other end into a USB port on the computer.

Windows® XP

Insert the USB cable into the computer USB port on which you loaded the Wave USB driver. See [Close Device Manager](#) on page 65 for more information.

3. Start your CAT software and open your Read program. Refer to your CAT software manual for instructions on reading steno notes.
4. Verify the appropriate Read options are selected. In Case CATalyst, do one of the following:

Case CATalyst V11 and Higher

Use the following Read options:

- a. Device: **Wave**
- b. Method: **USB**
- c. Drive: **Memory**

Case CATalyst V4.096 - V10

Use the following Read options:

- a. Device: **élan**
 - b. Method: **USB**
 - c. Drive: **RAM (Cybra Only)**
5. After successfully reading your steno notes, you may want to clear the notes from the Wave memory. See [Erase Memory Files](#) on page 47 for more information.

USB Virtual Serial Port Connection

To use a USB virtual serial port to read steno notes, you must have the Wave virtual serial port driver on your computer which installs when you install the USB driver. The virtual serial port uses Stentura protocol. See [Installing the USB Drivers](#) on page 63 for instructions on loading the driver.

To read notes via USB virtual serial port cable:

1. Ensure your Wave and computer are turned **On** and are fully booted.
2. Each end of the USB cable has a different connection plug. Insert the appropriate end of the USB cable into the USB port on the back of the Wave and the other end into a USB port on the computer.

Windows® XP

Insert the USB cable into the computer USB port on which you loaded the Wave USB driver. See [Close Device Manager](#) on page 65 for more information.

3. Turn your computer **On** and start your Read program. This is a virtual serial port communication via the USB cable. It is necessary to ensure you designate the appropriate COM port. It also may be necessary to select *Stentura* as the writing device. Refer to your CAT software manual for instructions on reading steno notes.
4. After successfully reading your steno notes, you may want to clear the notes from the Wave memory. See [Erase Memory Files](#) on page 47 in this chapter for more information.

Erase Memory Files

You can erase the memory at any time. When the memory reaches capacity, a message displays. No further steno strokes are recorded to memory, however, you can continue to write realtime. It is important to clear the memory if you are using software that translates steno notes from memory.

To erase Memory files:

1. From the Opening menu, press **Memory**, **Erase All**.
2. The Wave prompts you with a confirmation message to delete all the files in Memory.
3. Do one of the following:
 - Press **Yes** to erase all the files. When the Wave completes erasing the Memory files, press **OK** to return to the Opening menu.
 - To keep the current files and not erase the Memory, press **No**. To return to the Opening menu, press **Quit**.

Options

Options allow you to switch the USB communication between Standard and élan Mira® emulation, change the Serial Protocol, adjust the Beeper Volume and select a prompt when ending a job.

To access Options:

1. From the Opening Menu, press **Setup, Options**.
2. For details about each option, see the appropriate topic in this chapter:
 - “Beeper Volume”
 - “Display Strokes Per Minute (SPM)”
 - “Keyboard Layout”
 - “Prompt To End a Job”
 - “Serial Protocol”
 - “USB Communication”

Prompt to End a Job Option

The Wave can optionally prompt you with a confirmation message each time you press the End button to close a job. When the message displays, you can continue to close the job by selecting End again. Pressing Cancel or continuing to write cancels the message and the job remains open.

To set the end job confirmation prompt:

1. From the Opening menu, press **Setup, Options**.
2. Press the **Up** and **Down** buttons as necessary to highlight the *Prompt to end job* option.
3. Press the **Change** button to toggle the option between Yes and No. No is the default.
4. To display the Opening menu, press **OK, More, Quit**.

Scroll

Using the Scroll function, you can review testimony by moving up or down the Tilting screen one line at a time. When you resume writing, the Wave returns to the current spot in the testimony.

1. From the First Writing menu, press **Scroll**.
2. Use any of the following menu options:
 - **Up** - move to a previous line.
 - **Down** - move to the following line.
3. To exit the Scroll menu, continue writing or press **Quit**.

Search

The Wave allows you to search through the steno notes in the active realtime file. When you select to search for an item, the Wave highlights the located item on the screen. You can search for the last electronic Mark or specific steno strokes.

Search for the Last Mark

An electronic Mark displays as an exclamation mark (!) on the left and an open parenthesis, (, on the right of the Tilting screen.

1. From the First Writing menu, press **Search, Last Mark**. If the Mark is not found or you reach the beginning of the file, the search stops with the cursor positioned at the beginning of the file.

Use any of the following menu options:

- **Previous** - search backward in the file for the previous electronic Mark.
 - **Up** - scroll backward in the file.
 - **Down** - scroll forward in the file.
2. Continue writing or press **Quit**. The First Writing menu and your current writing position display.

Search for Steno Strokes

1. From the First Writing menu, press **Search, Steno**. The *Enter Steno To Search For* field displays.
2. Write the steno strokes for which you want to search. If you make a mistake, press **Clear** and then write the new strokes.
3. Press **OK**. The Wave highlights the steno outlines. If the steno outlines are not found or you reach the beginning of the file, the search stops with the cursor positioned at the top of the file.

Use any of the following menu options:

- **Previous** - search backward in the file for the previous occurrence of the steno outlines.
 - **Up** - scroll backward in the file.
 - **Down** - scroll forward in the file.
4. Continue writing or press **Quit**. The First Writing menu and your current writing position displays.

Serial Protocol Option

The Serial Protocol option is a fixed option that displays the Wave communication protocol when using the Virtual Serial Port driver provided by Stenograph. Select Stentura as the writer in your CAT system if you are using the serial protocol with a CAT system not compatible with the Wave USB protocol.

Status

Status displays information about the Wave. The status screen indicates:

- Software version.
- When a job is opened, the name of the job.
- The approximate number of strokes per minute.
- The total number of strokes to date for all jobs taken.
- Keyboard type and Serial Protocol.
- The amount of space remaining in Memory.
- Whether or not the AC adapter/charger is charging.
- Main Battery status. See [Batteries](#) on page 18 for more information.

Check Status Information

To check status information:

Before Writing

1. From the Opening menu, press **Status**.
2. To return to the Opening press **OK**.

While Writing Realtime

1. From the Writing menu, press **More, Status**.
2. To return to the Writing menu press **OK, More**.

Steno Test

The Steno Test feature puts the Wave in writing mode and simulates steno strokes for diagnostic purposes. This feature is generally used at the request of a Stenograph Technical Support Representative to test the Read and Writing features of the Wave.

To activate Steno Test:

1. From the Opening menu, press **Diag, Steno Test**.
2. Writing any steno stroke exits the Steno Test mode but keeps the file open. To close the file, press **End**.

If the option, *Prompt to confirm ending job* is active, a confirmation prompt displays. Press **End** to close the job or continue writing to cancel the message.

Test Mode

Test mode allows you to write to the realtime screen without writing to memory. The Wave must be connected to the computer for realtime writing. A testing facility may request this mode when you take a certification test.

To turn Test Mode On or Off:

1. Connect the Wave to your computer for realtime writing. For more information, See [Connect for Realtime Writing](#) on page 23.
2. From the Opening Menu, press **Setup, Test Mode**. The Status and Menu bars display in red to indicate that the Wave is in Test mode. The Wave remains in Test Mode until you turn the feature Off or turn the Wave Off.
3. To display the Opening menu, press **OK, More, Quit**.

Tilting Screen Appearance

You can adjust the font size and backlight level on the Tilting screen. The font size is only adjustable before beginning realtime. The brightness level is adjustable before or during realtime.

Select Tilting Screen Font Size

The Wave can display steno outlines in five different font sizes. Using a smaller font allows you to display more steno strokes on the Tilting screen and using a larger font allows for easier viewing. The default font size setting is #3.

To change the Tilting screen font size:

1. From the Opening menu, press **Setup, Display**.
2. On the Display menu, press **Font**.
3. Move the pointer (>>) using the **Font▲** and **Font▼** buttons to select **one** of the font sizes.
4. When finished with your selection, press **OK**. The Display menu reappears. The selected font size remains until changed.
5. To return to the Opening Menu press **Quit, More, Quit**.

Set the Tilting Screen Backlight Level

Adjust the brightness of the Backlight on the Tilting screen to accommodate your viewing preference. Decreasing the brightness reduces the amount of the power required to display the screen which can reduce battery consumption. Optionally, setting the Backlight to automatically dim after a period of inactivity also reduces battery consumption. Dimming options allow you to customize automatic dimming when selected.

To customize the Tilting screen Backlight levels:

1. Do one of the following:
 - From the Opening menu, press **Setup, Display, Backlight**.
 - From the First Writing menu, press **More, Setup, Display, Backlight**.
2. Press the **Up** and **Down** buttons to highlight an option. Use the **+** and **-** buttons to make changes.
 - *Backlight Bright Level*—Increase or decrease the Backlight level. The brightness is based on a percentage. 100% is the default. The screen reflects your selection.
 - *Backlight Dim Level*—Set the Backlight dimming level when the *Auto Dim After* option is active. The brightness level is based on a percentage. The screen reflects your selection.
 - *Auto Dim After*—Select the period of inactivity that must pass on the Wave before Backlight dimming occurs. Choose a number between **1-90** seconds or **Never**.
 - *Auto Bright When*—Select the action that must be taken to resume regular Backlight brightness after dimming. Choose **Steno** or **Function Key**.
3. When finished with your selections, press **OK**. The Display menu reappears.

4. Do one of the following:
- With no open job, return to the Opening Menu by pressing **OK, More, Quit**.
 - During a job, continue writing. The First Writing menu redisplay.

Time and Date

The Time function allows you to change the time and date on your Wave. It is important to maintain date and time accuracy in the event you need to locate a file in Memory.

1. From the Opening menu, press **Setup, Time**. The Time and Date screen displays.
2. Press the **Next** button to select the unit of time or date you want to change.
 - Month
 - Day
 - Year
 - Hour
 - Minutes
 - AM/PM
3. Do **one** of the following:
 - To increase the unit of time or date, press **+**.
 - To decrease the unit of time or date, press **-**.
4. Repeat the previous steps for each unit of time or date you want to change.
5. To apply your selection, press **Accept**.
6. To display the Opening menu, press **Quit, More, Quit**.

USB Communication Option

The Wave uses the same realtime USB protocol as the élan Mira®; however, some CAT systems look specifically for the writer model instead of the USB protocol. The USB Communication option allows you to switch the USB protocol from Standard to emulate the élan Mira, enabling you to connect your CAT system to the Wave via USB cable for realtime communication.

The USB Communication option only affects realtime communication via USB. Virtual USB serial port communication is not available.

To change the USB Communications option:

1. From the Opening Menu, press **Setup, Options**.
2. Use the **Up/Down** buttons to highlight the *USB Communication (Wave will Reset if Changes)*: field.
3. Press **Change** to switch to *Mira Emulation* or *Standard*. Standard is the default selection.
4. The message, “Changing the USB Communications Option Causes the Wave to Reset.” displays.
5. Press **OK**. The Wave changes the USB protocol, resets and displays the Opening menu. The setting remains until changed.

Troubleshooting

Chapter 5, *Troubleshooting*, suggests possible solutions to some common situations encountered when using the Wave. Most users can remedy the following situations themselves. For more troubleshooting information, check Stenograph's web site, www.stenograph.com. If a problem persists, call Stenograph Technical Support at **1.800.323.4247** or **1.630.532.5100**.

Reset - Wave Appears Unresponsive

If the Wave appears to be unresponsive, press the **Reset** button on the back of the Wave. If you have an open file at the time you press the Reset button, the current file closes. The Wave reboots and a recovery complete message displays. Press **OK** and continue writing. A new file opens.

TrueView Error Messages

See [Troubleshooting TrueView](#) on page 80 for TrueView troubleshooting solutions.

USB - Cannot Update Software

To load a Wave software update, you must first install the Wave USB driver on your computer. The Wave USB drivers are available for download from the Stenograph website. To load the Wave USB driver, See [Installing the USB Drivers](#) on page 63 for instructions.

USB - Realtime Connection Appears Unresponsive

If you leave the USB realtime connection active when you take a break, the realtime screen on the CAT system may not display the new steno strokes when you resume writing. This is a function of the USB port power management settings when it remains idle for a period of time.

Power management settings determine if the USB ports turn off when not in use for a specified amount of time. Check the Power management settings for your computer USB Root Hubs to ensure the USB port does not turn off when idle.

When using the virtual serial port communication via a USB cable, ensure the power management settings to the USB port does not turn off when idle. Virtual serial port communications via USB cable, however, does not allow you to disconnect and reconnect the USB cable and maintain the realtime connection.

To modify the USB power management settings, please consult your Windows documentation about Windows Device Manager for your operating system. For additional information, check Stenograph's Help Desk.

USB - Unknown Device Message on Computer

1. Make sure the USB driver is loaded on the computer. See [Installing the USB Drivers](#) on page 63 for more information.
2. Make sure the Wave is turned **On** before attaching the USB cable to the Wave and the computer.

Installing the USB Drivers

Appendix A, *Installing the USB Driver*, instructs you how to install the USB driver required when using a USB cable to connect your Wave with Case CATalyst, other CAT software and install updates. You can only use USB Realtime and Read communications with USB compatible CAT software such as Case CATalyst version 4.096 or higher.

The USB installation instructions include installing the USB driver that creates a virtual serial port. If your CAT vendor does not support a USB realtime connection, this driver allows for serial communication between the Wave and CAT software. See [USB Virtual Serial Port Communication](#) on page 25 for details on USB virtual serial port communication.

When loading the Wave USB device drivers, the User Account Control or Permissions message box displays. The User Account Control (UAC) is a security feature prompting you for permission to run the displayed program name or service being accessed. To load the Wave device drivers, you must choose **Allow** in the UAC or Permissions message box. The User Account Control is an important security feature of Windows operating systems. Stenograph **does not** recommend disabling it.

Complete the instructions to install the USB Wave device drivers running a Windows 32-bit or 64-bit operating system. Installing the drivers to one USB port on a computer running Windows 7, 8.x or 10 automatically installs the drivers to all the USB ports. Depending on your operating system, screens may vary slightly.

The Wave USB drivers are available for download from the Stenograph website. Follow the appropriate instructions in this appendix to load the USB drivers on a computer using a Windows 10, Windows 8 and Windows 7. If you have questions about installing the Wave USB driver, please contact Stenograph Technical Support at **1.800.323.4247** or **1.630.532.5100**.

Install Wave Drivers

1. Turn your computer **On**. Ensure it is fully booted.
2. The Wave USB device drivers are available for download from the Stenograph website at www.stenograph.com. At the Stenograph website: click Support, Download Center and Utilities & links.
3. Right click the on the **Stenograph Writer USB Drivers** and select **Save Target as** or **Save Link as** and save the file to a location on computer desktop or your hard drive.
4. Navigate to the location where you saved the file, highlight the file, right click and select **Extract All**. Then double click the **StenographDriverInstall.exe** to install the drivers.

The Windows Security screen may display, prompting you to install the Stenograph L.L.C. Ports (COM & LPT) virtual serial driver. Click the option, **Always trust software from “Stenograph”** and then click **Install**. If a second prompt displays for the Stenograph USB Writer driver, click **Install**.

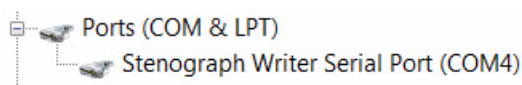
5. The Wave driver installation begins.
6. Once the drivers install, the Stenograph Writer Drivers Setup Complete dialog box displays. Press **Enter** (Finish) to close the wizard.

Confirm Device Drivers Installation

Confirm both the Stenograph Ports (COM & LPT) virtual serial driver and the Stenograph USB Writer driver installed successfully using the Windows Device Manager.

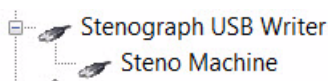
To verify the security device drivers installed correctly:

1. Ensure the Wave is turned **On** and connected to the computer via USB cable.
2. From the Windows Start menu, click **Control Panel**.
3. If the Permissions dialog box displays, select **Continue**. Select Device Manager.
4. In the Device Manager, click the plus sign next to **Ports (COM & LPT)**. Verify *Stenograph Writer Serial Port* displays in the list:

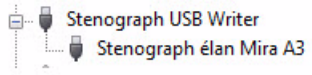


If your Wave USB Communication option is set to *Mira Emulation*, no device driver line displays.

5. Click the plus sign next to **Stenograph USB Writer**. Verify *Steno Machine* displays in the list:



If your Wave USB Communication option is set to *Mira Emulation*, the Device Manager displays *Stenograph élan Mira A3* in the list:



6. Close Device Manager.

Updating Wave Software

Appendix B, *Updating Wave Software*, explains how to download available updates for your Wave from the Stenograph web site. You must have an active Internet connection and know your customer number and Wave serial number in order to perform the update. The Wave serial number is located on the bottom of the writing machine?

Once you download the software update onto your computer, you load it onto your Wave via a USB cable. To load the Wave software update via USB cable, you must first install the Wave USB driver on your computer. The Wave USB driver is available for download from the Stenograph website. If you need to load the Wave USB driver, See [Installing the USB Drivers](#) on page 63 for instructions.

To update your Wave software:

1. Download the update to your computer. Connect to the Stenograph web site, www.stenograph.com, and navigate to **Support/ Downloads**.
2. Select **Wave**.
3. Right click on the selected update file to download and choose **Save Target as**. The Save As dialog box displays.

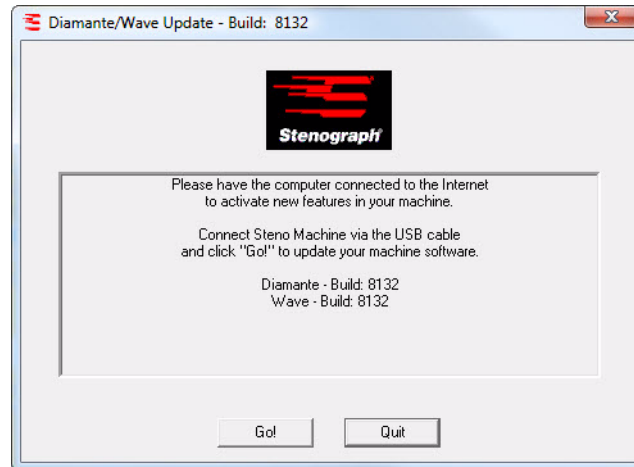
The File name field displays the name of the selected file to download. Do not alter this name.

4. Select a location on your computer where you want to place the download file and select **Save**. Stenograph recommends saving the file to your Desktop.

The File Download dialog box displays until the download completes copying files to your computer.

5. When the download is complete, the file displays on your Desktop, if the Desktop was selected for the download location.
6. Load the update onto your Wave. Ensure your Wave and computer are turned **On**.
7. Each end of the USB cable has a different connection plug. Connect the appropriate end of the USB cable to the USB port on the back of the Wave and the other end to a USB port on the computer.
8. Using My Computer, navigate to the location on your computer where you downloaded the DiamanteWave update file.

9. Double click on the DiamanteWave update file. The Diamante/Wave Update dialog box displays.



10. Click **Go!**. The screen briefly displays a message indicating it is sending the updated software build. The Wave beeps twice and then displays the message: *Programming Flash*.
11. When the update is complete the Wave reboots and displays the Opening menu. Your computer displays the message: *Successfully Updated the Wave. Click OK to Exit*.
12. Click **OK** and in the Wave Update dialog box on your computer, click **Quit**. You can delete the update file.

Wave Utilities

Appendix C, *Wave Utilities*, provides instruction on how to:

- personalize the splash screen with a photograph.
- retrieve log file if necessary.
- use TrueView to view TrueStroke™ data generated by the Wave.

Performing utility functions requires downloading the utility from www.stenograph.com. Go to www.stenograph.com, click Support, click Download Center and then click Utilities & Links. Right click the utility link and select **Save Target as** or **Save Link as** and save the file to a location on computer desktop or your hard drive. Navigate to the location where you saved the file, highlight the file, right click and select Extract All. Stenograph recommends that you create a Stenograph Utility folder on your Desktop and copy the utilities to that folder.

Windows operating system

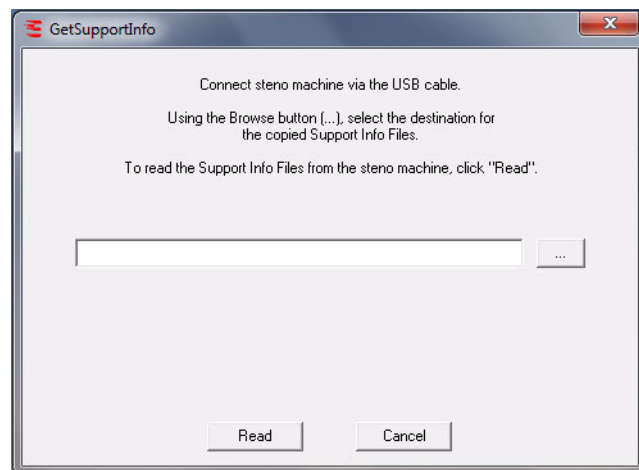
When copying or running a Wave Utility, the User Account Control message box may display. The User Account Control (UAC) is a security feature prompting you for permission to run the displayed program name or service being accessed. To use the Wave utilities, you must choose **Continue** in the UAC message box. The User Account Control is an important feature of Windows and Stenograph **does not** recommend disabling it.

Copy Log Support Info Retrieval

The GetSupportInfo utility transfers log error information from the Wave to your computer. In the rare instance your Wave writing machine experiences an error, Technical Support may request this information for analysis.

To retrieve the support information:

1. Turn your Wave **On**.
2. From the Opening Menu on the Wave, press **Diag, Copy Log**.
3. The Wave copies all the appropriate log information to the Support Info Files folder.
4. Turn your computer **On**. Ensure that it is fully booted.
5. Download the Wave GetSupportInfo Utility from the Stenograph web site. On the Stenograph web site, select Support, Download Center, Utilities & Links and then right click the Wave GetSupportInfo Utility link, select **Save Target as** or **Save Link as** and save it to your computer desktop or hard drive. At the Stenograph website: click Support, Download Center and Utilities & links. Navigate to the location where you saved the file, highlight the file, right click and select **Extract All**.
6. Connect the appropriate end of the USB cable to the USB port on the Wave and the other end to a USB port on your computer.
7. Double click the **GetSupportInfo.exe** icon on your Desktop. The GetSupportInfo dialog box displays.



8. Click the **Browse** button and navigate to the location on your computer where you want to copy the log files.
9. Click **OK**. The path and file name of the selected location displays in the GetSupportInfo dialog box.
10. Click **Read**. The GetSupportInfo utility automatically copies the log files from the Support Info Files folder on your Wave to the specified location on your computer.
11. A completion message displays when the Wave finishes coping the files. Click **OK** to close the message.
12. Click **Cancel** to close the GetSupportInfo dialog box.
13. Forward the files to Stenograph as instructed by the Technical Support Representative.

Splash Screen

The Splash Screen is the photograph that displays briefly on the Tilting screen when turning your Wave On. The SplashLoader Utility allows you to personalize the Wave startup screen with a photograph of your choice.

The photograph you load can be located on the computer hard drive or removable media. It must be in JPEG (.JPG) format. Download the Splash Screen Utility and stock photos (included in the download) from the Stenograph web site (www.stenograph.com), Select Support, Download Center, Utilities & Links and then Luminex/Diamante/Wave Splash Screen Loader utility. You must have the Diamante USB driver installed on your computer to use the USB cable. If you need to load the Wave USB driver, see the *Installing the USB Driver* appendix for instructions.

To personalize the splash screen:

1. Turn your computer **On**. Ensure that it is fully booted.
2. Download the Luminex/Diamante/Wave Splash Screen Loader Utility from the Stenograph web site. On the Stenograph web site, select Support, Download Center, Utilities & Links and then right click the Luminex/Diamante/Wave Splash Screen Loader Utility link, select **Save Target as** or **Save Link as** and save it to your computer desktop or hard drive. At the Stenograph website: click Support, Download Center and Utilities & links. Navigate to the location where you saved the file, highlight the file, right click and select **Extract All**. Stock photos are also downloaded with the zip file.
3. Turn your Wave **On**.
4. Connect the appropriate end of the USB cable to the USB port on the Wave and the other end to a USB port on your computer.
5. Double click the **Splashloader.exe** icon on your Desktop. The Diamante/Wave Splash Screen Loader dialog box displays.



6. To select a photograph, click the **Browse** ... button to navigate to the location of the desired picture. Highlight the file name and click **OK**.

7. The path and file name of the selected picture displays in the Wave Splash Screen Loader dialog box.



8. Click **Load** to send the picture to your Wave.
9. When the picture has successfully loaded, the Success dialog box displays. Click **OK**.
10. Click **Quit** to close the Splash Screen program.
11. To view your picture on the Wave, turn Off the writing machine and turn it back On. The startup screen displays the selected picture. If you want to load a different picture, double click the Splashloader.exe icon and repeat the picture selection steps.

TrueView

TrueView is a Wave utility program that allows you to analyze your steno strokes by viewing the TrueStroke™ data (Steno X-ray2) generated by the Wave. TrueStroke data is gathered while writing on the Wave and contains information about timing, the direction of travel and the velocity for each steno key in each steno outline. This allows you to examine a steno outline to determine the cause for a stroke to register as it did, providing instant feedback on your writing style. For example, you may want to examine split, stacked, dragged or dropped strokes.

In Case CATalyst version 10.07 or higher, TrueStroke data is automatically stored in the job subfile, Steno X-ray2. It is viewable by double clicking a steno stroke from the vertical notes.

Copy the TrueView Utility

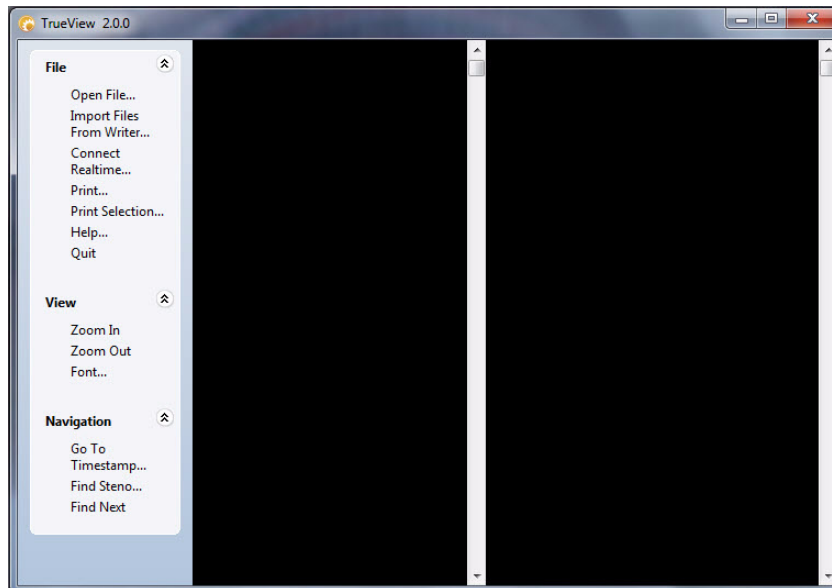
To view TrueStroke data using TrueView, you must first copy the TrueView utility to your computer. The TrueView Utility is available for download at www.stenograph.com. Click **Support/Downloads/Utilities & links/TrueView Utility for Diamante/Wave users**.

To copy the TrueView Utility

1. Turn your computer **On**. Ensure that it is fully booted.
2. Download the TrueView Utility from the Stenograph web site. At www.stenograph.com, select Support, Download Center, Utilities & Links and select the TrueView utility and then right click the TrueView Utility for Luminex/Diamante/Wave Users link, select **Save Target as** or **Save Link as** and save it to your computer desktop or hard drive..
3. Navigate to the location where you saved the TrueView.zip, right click the TrueView.zip and select **Extract All**.
4. Double click the **TrueView.exe**, the TrueView screen displays.

Access TrueStroke Data

1. Open the TrueView utility. Double click the TrueView icon. The TrueView screen displays.



2. The screen is divided into three columns with the TrueView menu on the left. Click one of the following features on the TrueView menu to open a Steno X-ray2 file:

Open File

Open an existing steno file on the hard drive or removable media. The Open dialog box displays allowing you to navigate to the desired file.

Import Files From Writer

Import an existing file from the Wave onto your computer to view it in TrueView.

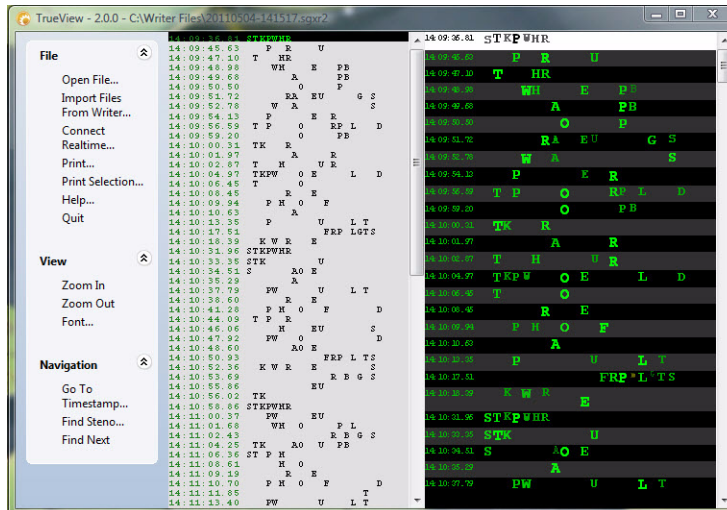
- a. Ensure the Wave is connected to your computer and turned **On**.
- b. Click **Import Files From Writer**. The Select the files you wish to copy dialog box displays. It may take a few seconds to display the list. The Wave files are stored in Year/Month folders with a date/time name.
- c. Use Windows conventions to select files and click **OK**. The Browse For Folder displays.
- d. Navigate to the location to which you are copying the files and select **OK**. The imported files are saved in the selected location with the original file name.
- e. At the Import Complete message, press **Enter (OK)**.
- f. Use Open File on the TrueView menu to view the TrueStroke data.

Connect Realtime

View TrueStroke data for the realtime file. See Connect for Realtime Writing on page 23 for detailed information about realtime writing.

- a. Ensure your steno machine is **On**.
- b. Connect the Wave to your computer via the USB cable.

- c. Write a stroke on the steno machine.
 - d. In the TrueView dialog box, select **Connect Realtime**. The Save As dialog box displays. Navigate to where you want to save the realtime file. Type a file name and select **Save**.
3. The selected file displays with the steno note file in the middle column and the TrueStroke data, in Compact view, in the right column.



Vertical Notes with TrueStroke Data in Compact View

4. Double click the TrueStroke data column to toggle the view, from Compact to Expanded. Expanded view shows the TrueStroke details for each stroke. The details reveal the timing, direction of travel, depressed or released, and velocity of the steno keys in a stroke. See [Understanding the TrueStroke Data](#) on page 76 for more information on data interpretation.

14:12:00.49	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.43	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.45	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.47	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.48	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.50	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.52	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.54	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.56	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.58	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.60	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.62	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.63	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.65	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.67	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.69	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.71	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.73	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.75	S	T	K	P	W	A	O	E	U	P	B	L	T
14:12:02.76	S	T	K	P	W	A	O	E	U	P	B	L	T

TrueStroke Data in Expanded View

5. Additional TrueView features allow you to search, zoom, modify the font and print the TrueStroke data. See [TrueView Menu Features](#) on page 78 for feature details.

Understanding the TrueStroke Data

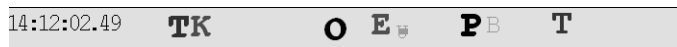
TrueStroke data, in Compact view, provides initial information about a keystroke, assisting you in locating steno outlines you may want to review. For example, you may notice steno outlines in the TrueStroke data column that contain characters which appear lighter or darker than others in the same stroke; characters that are higher or lower than others; or you may notice a stroke that contains a character with a horizontal bar through it, indicating a key was pressed but did not register. Double clicking the steno outline opens Expanded view, providing detailed information about the stroke.

TrueStroke data, in Expanded view, displays each individual character of the keystroke in specific colors at varying intervals in the keystroke:

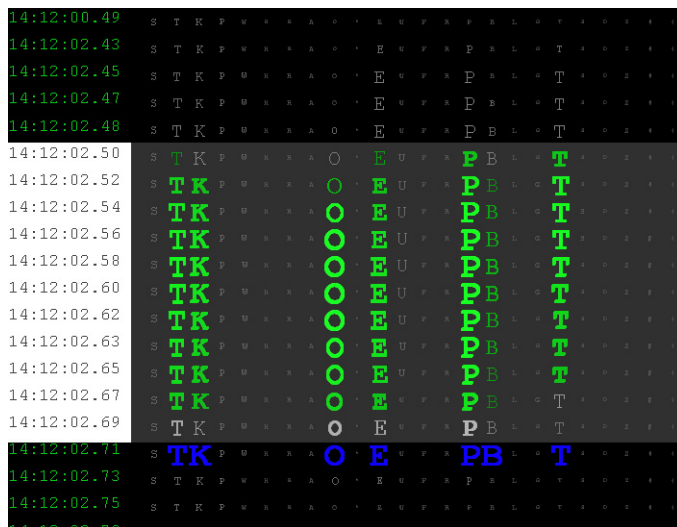
- The light gray color at the beginning of the stroke indicates the key is being pressed down. When the light gray color continues to display for a key, it indicates a shadowed character that does not register. In Compact view, a shadowed character displays with a horizontal bar through it.
- The green color indicates the key has been held down long enough and with sufficient velocity to register. The brighter the color, the more pressure or velocity occurred when the key was depressed. In a multi-character steno outline, some keys are visible in the down stroke before other characters. This indicates that the keys were pressed at different times instead of all together.
- The soft white color shows when the keys are released and move up.
- The blue color closely represents when TrueStroke registers all the keys as a complete stroke.

Example 1

The steno outline for the word, “don’t” occurs in the steno notes. Some characters appear lighter and higher than others. The “U”, displays with horizontal bar indicating it was pressed but did not register.



Double clicking in the TrueView column displays the steno strokes in Expanded view.



The “O” and “P” keys are bright green throughout the stroke, indicating they received consistently strong pressure on the downstroke. The “B” key receives less pressure as indicated by the lighter green color. All the intended keys are pressed or released at approximately the same time and are registered as indicated by the blue color.

Example 2

The steno outline for the word, “yes” occurs in the steno notes. This two stroke outline was intended to be written as a single stroke.

```
06:50:56.95 K W R
06:50:57.07 E
```

Double clicking in the TrueView column displays the steno strokes in Expanded view.

```
06:50:56.95 S T K P W * R A * * E U F R P L L A Y * * *
06:50:56.97 S T K P W * R A * * E U F R P L L A Y * * *
06:50:56.98 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.00 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.01 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.03 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.05 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.06 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.08 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.09 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.11 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.13 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.14 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.16 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.17 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.19 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.21 S T K P W * R A * * E U F R P L L A Y * * *
06:50:57.22 S T K P W * R A * * E U F R P L L A Y * * *
```

The “K” “W” and “R” keys display in green and register together, as indicated by the blue but are then dragged, as shown by the light gray color and no longer register while the “E” key is depressed. All the intended keys did not get pressed or released at the same time resulting in the single stroke splitting into two strokes.

Example 3

The steno outline for the “Q” followed by the word “I” occur in the steno notes. This one stroke outline was intended to be written as two strokes.

```
06:48:36.75 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.75 STKPWHR EU
```

Double clicking in the TrueView column displays the steno strokes in Expanded view.

```
06:48:36.75 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.77 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.78 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.80 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.82 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.83 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.85 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.86 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.88 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.90 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.91 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.93 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.94 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.96 S T K P W H R A * * E U F R P L L A Y * * *
06:48:36.98 S T K P W H R A * * E U F R P L L A Y * * *
```

The “S” “T” “K” “P” “W” “H” and “R” keys display in green and continue to display in green when the “E” and “U” keys are depressed. The keys intended for the first stroke were not released before the keys for the keys for the second stroke were depressed. All the keys register together, as indicated by the blue color.

TrueView Menu Features

Use the TrueView Menu to open a desired file for viewing, examine the TrueStroke data and search the file for specific steno strokes. Click a menu item, to invoke the feature.

File

View TrueStroke data for files on your computer hard drive or removable media; for files imported from the Wave onto the hard drive; or the steno notes for a current realtime.

Open File

Open an existing steno file on the hard drive or removable media. The Open dialog box displays allowing you to navigate to the desired file.

Import Files From Writer

Import existing files on the Wave onto your computer to view the TrueStroke data. The Wave must be connected to your computer and turned On.

1. Click **Import Files From Writer** to display the Select the files you wish to copy dialog box. Depending on the number of files on the steno machine, it may take a few seconds for the list of files to display.
2. Use Windows conventions to select one or more files for copying onto your computer and select **OK**. The Browse For Folder displays.
3. Navigate to the location where you are copying the files and select **OK**. The imported files are saved in the selected location with the original file name.
4. Use *Open File* to view the TrueStroke data for a selected file.

Connect Realtime

View TrueStroke data for the realtime file. See [Connect for Realtime Writing](#) on page 23 for detailed information about realtime writing with the Wave.

1. Ensure your steno machine is On.
2. Connect the Wave to your computer via the USB cable.
3. Write a stroke on the steno machine.
4. In the TrueView dialog box, select **Connect Realtime**. The Save As dialog box displays.
5. Navigate to the location where you are saving the realtime file. Type a file name and select **Save**.

Print

Send all the TrueStroke data, in compact view, to the selected printer.

Print Selection

Sends selected TrueStroke data from the file, in compact view, to the selected printer.

Help

Display TrueStroke Data Help which details how to interpret the TrueStroke data.

Quit

Closes the TrueView dialog box.

View

Zoom In

Incrementally increase the font size of the TrueStroke data display to its original size after using Zoom Out. The Zoom feature does not affect the steno note section.

Zoom Out

Incrementally decrease the font size of the TrueStroke data display. This is useful when the entire steno outline is not visible without scrolling. The Zoom feature does not affect the steno note section.

Font

Change the font type for the steno notes and TrueStroke data display. Other attributes, such as font size and font style do not apply. Changing font attributes has no affect on either display.

Navigation

Go To Timestamp...

Move the cursor to a specific steno outline based on the timestamp. Type the hour and minute or the entire timestamp and select **OK**. This option may be useful when searching for the same steno note location in a transcript on your CAT system.

Find Steno...

Move the cursor to a specific steno outline. Type each character in the steno outline you are searching using a hyphen (–) to indicate a final character. For example, you are searching on “Mike.” You type, PH for M, AOEU for long I, BG for final K. Select **OK** to start the search. This option may be useful when searching for the same steno note location in a transcript on your CAT system.

Find Next

Repeat the search for the current steno outline. If the search reaches the end of the file, it continues from the beginning of the file.

Perform Wave Key Adjustments

If keys are showing that you do not want register or you want a key to register that is not visible, perform the following troubleshooting steps in the order listed:

1. If there are steno strokes you continually misstroke, and that misstroke cannot be defined as anything else, it is strongly recommended that you define the outline in your dictionary.
2. If you are using Case CATalyst or a CAT system that has a Drag/Drop feature which allows you to identify keys you tend to drag or drop, you may want to try identify the keys and then test the result. In Case CATalyst, refer to the *Case CATalyst Help*.
3. Increase or decrease the keyboard tension slightly. See [Adjust Keyboard Tension](#) on page 28.
4. Increase or decrease the keyboard's depth of stroke. Setting the shortest depth of stroke in conjunction with the lightest keyboard tension is vulnerable to stacking or dragging a key or keys. See [Adjust Depth of Stroke](#) on page 28.
5. Tilt the Wave either slightly forward or backward. The tilting mechanism is built into the bottom of the steno machine and does not require a tilting tripod. See [Tilting the Wave](#) on page 10.
6. Perform Keyboard Option adjustments. See [Adjust Keyboard Options](#) on page 42 for specific steps on performing Keyboard Sensitivity, Split/Stack and Transition Time option changes.
7. Make individual key contact adjustments. Conduct this procedure only after completing all the previous troubleshooting steps. See [Adjust Individual Keys](#) on page 43.

Troubleshooting TrueView

File is open on writer. Please close file and try again.

This message displays when attempting to write realtime. Check the following:

1. All the files on the Wave must be closed when using the TrueView feature, *Import Files from Writer*. End the open file on the writing machine and try again.
2. Wave drivers must be installed on your computer. Ensure the device drivers are installed. The device drivers are available to download on the Stenograph website. See [Installing the USB Drivers](#) on page 63.

Connection with writer was lost.

TrueView stopped receiving the realtime feed. When writing realtime and the USB cable is disconnected, TrueView stops receiving the realtime feed. To reestablish the realtime connection:

1. Select **OK** to dismiss the message.
2. Reconnect the USB cable.
3. Write a few strokes and select **Connect Realtime**.
4. If you get the error message, "Cannot connect to writer (259)," dismiss the message. Write a few strokes and select **Connect Realtime**.

File Closed on Writer

When you press End on the writing machine, the realtime connection ends. Reestablish the realtime connection. Write a few strokes on the writing machine and select **Connect Realtime**.

