

# ClearOne®

CHAT® 60 | Personal Speakerphone for Skype™

## USER'S MANUAL



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**CHAT 60 USER'S MANUAL**

**CLEARONE PART NO. 800-159-251. November 2010 (REV. 2.1)**

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**U.S. PATENTS: D545,295; D545,805; D545,806;  
D545,807; D545,808.**

**OTHER PATENTS PENDING.**

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# CHAPTER 1: INTRODUCTION

## PRODUCT OVERVIEW

Thank you for purchasing the ClearOne CHAT 60 Personal Speakerphone.

The CHAT 60 is a portable audio peripheral that provides rich audio for hands-free calls with Skype™, the popular Internet communication program. The CHAT 60 is completely full-duplex and contains HDConference®, the suite of high performance audio processing technologies that include Echo Cancellation, Noise Reduction and Automatic Level Controls, producing crystal clear conversations.

Though designed specifically to be used with Skype, the CHAT 60 can also be used with other devices such as enterprise telephones and other applications such as VoIP softphones, web conferencing, instant messaging and PC-based gaming. This manual will provide instructions on using the CHAT 60 with Skype, as well as with these additional devices and applications.

## Service and Support

If you need assistance setting up or operating your CHAT 60 Personal Speakerphone, please contact us. We welcome your comments so we can continue to improve our products and better meet your needs.

### Technical Support

Telephone: 1.800.283.5936 (USA), 1.801.974.3760

Fax: 1.801.977.0087

E-mail: Tech.Support@ClearOne.com

Web site: www.ClearOne.com

### Sales and Customer Service

Telephone: 1.800.945.7730 (USA) or 1.801.975.7200

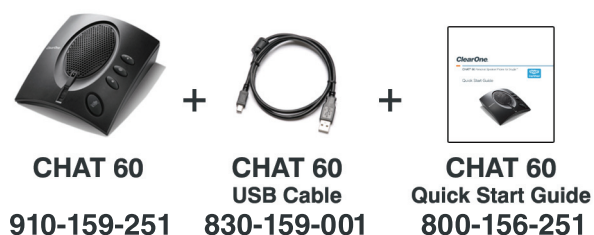
Fax: 1.800.933.5107 (USA) or 1.801.977.0087

E-mail: Sales@ClearOne.com

## Product Returns

All product returns require a Return Material Authorization (RMA) number. Contact ClearOne Technical Support before returning your product. Make sure you return all the items and packing materials that originally shipped with your product.

## PACKAGE CONTENTS



The illustration below shows the parts that ship in the box with each model of the CHAT 60

Contact your dealer for replacement parts and accessories.

- > **NOTE:** ClearOne is not responsible for product damage incurred during shipment. You must make claims directly with the carrier. Inspect your shipment carefully for obvious signs of damage. If the shipment appears damaged, retain the original boxes and packing material for inspection by the carrier. Contact your carrier immediately.



## REPLACEMENT PARTS & ACCESSORIES

Contact your Dealer or ClearOne directly for replacement parts and accessories.

## IMPORTANT SAFETY INFORMATION

Read the safety instructions before using this product. This personal speakerphone is not designed for making emergency telephone calls when the power fails. You must make alternative arrangements for telephone access to emergency services.

- Read and understand all instructions. Follow all warnings marked on the product.
- Unplug the product from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use only a damp cloth for cleaning.
- Do not use this product in or near water, for example, near a bathtub, kitchen sink, or swimming pool.
- Place this product on a flat, level, dry surface for ongoing operation.
- Never place product near heat radiators or registers. Allow adequate ventilation for heat dissipation.
- This product should only be operated using a power source specified on the product label. If you are not sure about the power source at your location, consult your dealer or local power company.
- Do not overload wall outlets and extension cords; this can cause fires or electric shock.
- Never spill liquid on or into the product.
- Do not disassemble this product. Opening or removing covers can expose you to dangerous voltages and other risks. Incorrect reassembly can cause electric shock during subsequent use. Disassembly voids the warranty.
- Unplug the product from the outlet and contact a qualified service technician under the following conditions:
  - a. When the power supply cord or plug is damaged or frayed.
  - b. If liquid has been spilled into the product.
  - c. If the product does not operate normally by following the operating instructions.
  - d. If the product has been dropped or damaged.
  - e. If the product exhibits a distinct change in performance.
- Avoid telephones during an electrical storm. There is a risk of electric shock from lightning.
- Do not use this product to report a gas leak in the vicinity of the leak.
- Do not use this product near intensive care medical equipment or by persons with pacemakers.
- This product can interfere with electrical equipment such as answering machines, TV sets, radios, computers and microwave ovens. Do not place the product in close proximity to any of these devices.

<b>WARNING: TO PREVENT FIRE OR ELECTRICAL SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.</b>	 THE LIGHTNING FLASH AND ARROW HEAD WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF DANGEROUS VOLTAGE INSIDE THE PRODUCT	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN  CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.	 THE EXCLAMATION POINT WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF IMPORTANT INSTRUCTIONS ACCOMPANYING THE PRODUCT.
	SEE MARKING ON BOTTOM / BACK OF PRODUCT		

Save these instructions

## CHAPTER 2: GETTING STARTED

### CHAT 60 CONTROLS



#### Power LED Indicator

The LED status indicator lights blue when the CHAT 60 is connected to a PC via USB. The LED status indicator changes to red when Mute is on.

#### Volume and Mute Buttons

Use the **Volume Up/Down** buttons to adjust the volume level of the CHAT 60.

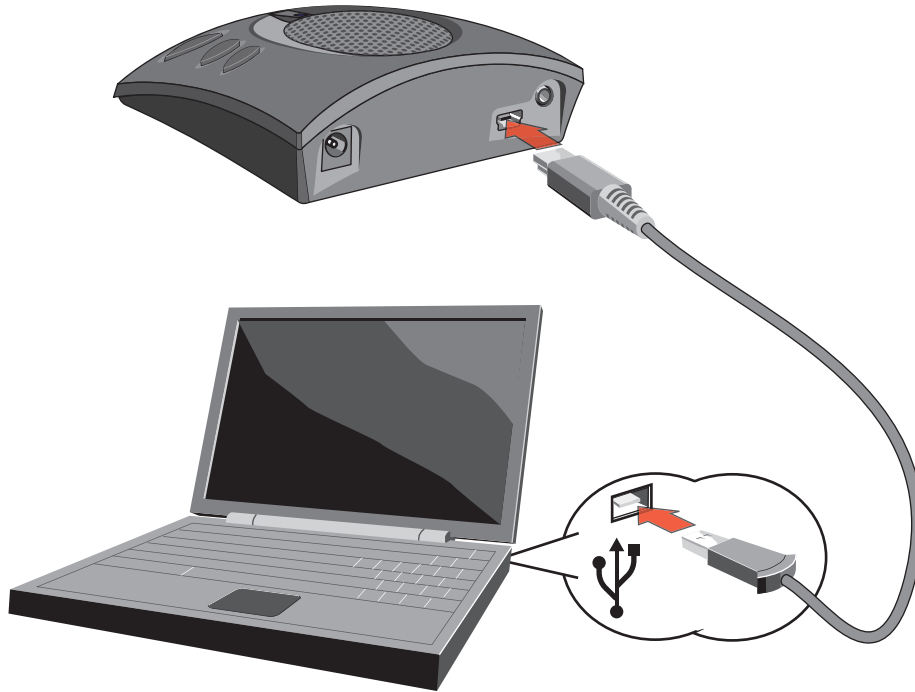
Use the **Mute** button to mute the CHAT 60's microphone until the button is pressed again.

You can use the volume controls in Windows to make these adjustments as well.

- > **NOTE:** Any changes made to the volume level by pressing the CHAT 60 volume control buttons will change the PC's system volume settings accordingly.

## CONNECTING THE CHAT 60 TO A PC

1. Using the included USB cable, connect the CHAT 60 to your PC or laptop. The status LED on the front of the CHAT 60 turns blue, then red, then blue again to indicate that Windows recognizes the CHAT 60. The **Windows New Hardware Found** dialog appears and Windows installs the USB 2.0 device drivers for CHAT on your system.
2. Follow the on-screen instructions. When the installation is complete, click the **Close** button.



- > **NOTE:** The CHAT 60 derives its audio settings from the PC's Windows sound settings or through the 3rd-Party application's settings (Skype, Yahoo, etc.) Refer to the tuning procedures in the **Using the CHAT Application** section in this manual or consult the specific 3rd-Party application's tuning adjustments.


# CHAPTER 3: CONFIGURING THE CHAT 60

## INSTALLING THE CHAT SOFTWARE FOR WINDOWS

- > **NOTE:** The install procedure is the same for all versions of Windows XP, Windows Vista and Windows 7 operating systems.

The CHAT 60 can be used right out of the box and there's no software to download or install since it is only used with a PC. However, ClearOne will occasionally release new versions of the devices' firmware which will need to be downloaded and installed.

The following procedure can be used to download and install the CHAT software for the CHAT 60 if the firmware requires updates.

1. Download the CHAT software by accessing the following:  
**<http://www.ClearOne.com/support/downloads.php?content=main>**
2. Select your device from the "**BY PRODUCT**" window and click **SEARCH** and the screen will display only those downloads available for your specific device.
3. Select the latest version of the CHAT software and the system will display a confirmation window for the software to be downloaded to your computer.
4. Unzip the downloaded folder and run the Setup (**Setup.exe**) file to begin the installation process.
5. Follow the on-screen prompts to complete the software installation.
6. When the CHAT software installation is complete, start the CHAT software by double-clicking the ClearOne CHAT icon  that is now on your Windows desktop, or by clicking:

**(Start > All Programs > ClearOne Communications > CHAT > ClearOne CHAT).**

- > **NOTE:** To ensure optimal sound quality, the CHAT 60 **MUST** be tuned properly prior to use or after the device has been moved. The CHAT 60's audio settings must also be customized for the specific application it is to be used with and for the specific device it is to be connected to.

## USING A 3rd-Party APPLICATION

It is always recommended to tune the CHAT 60 with the application to be used other than CHAT - such as Cisco Communicator or Skype - whenever possible. ClearOne recommends using the tuning wizard or audio configuration controls in that application to adjust audio settings. If the application does not have a tuning wizard or audio settings, use the CHAT application to tune the audio settings for optimal sound quality as explained in the next section.

- > **NOTE:** The volume settings in the CHAT software are synchronized with the Windows volume settings. Changing the volume using the CHAT software or the buttons on the CHAT 60 also changes the volume settings in Windows. Conversely, changing the volume settings in Windows also changes the settings in the CHAT software. It is always recommended using the 3rd-Party application's audio settings to tune the CHAT device.



## USING THE CHAT APPLICATION

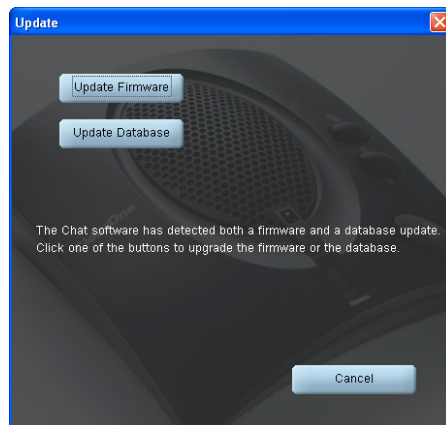
1. If not already open, start the CHAT application.
2. For the CHAT software, click the **My Devices** button and select the device you want to tune (select the **Other** or **All** option if your device/application is not listed), then click the **Apply to CHAT** button.
3. Adjust the speaker and volume settings on the external device or in the application to 50% (half volume).
4. Click the **Advanced** button to display the pre-defined audio settings for the device you selected in step 2. Use the **USB Audio** section of the screen to tune applications.
5. Place a call using the device or application. Land lines provide the best audio for tuning purposes.
6. Ask the person on the other end of the call to count from 1 to 10 in a normal voice. While the person is counting, click and move the **Speaker Level** slider in the CHAT application until the caller's voice can be clearly heard.
7. While the caller is still on the phone, count from 1 to 10 in a normal voice. Ask the caller if they can hear you clearly. Click and move the **Microphone Level** slider until the caller can hear you clearly.
8. Click **Save to Database** to capture the optimized settings. The **Add Settings to Database** dialog appears. Enter appropriate name in the **Model** field, then click the **Save to Database** button.
9. The optimal audio settings for the device or application are now ready for use. Repeat steps 1 through 9 for any additional devices and applications.

To switch between audio settings for different applications, click the **My Devices** button, select the desired application, then click the **Apply to CHAT** button. The audio settings are instantly applied for the chosen device or application.

### Check for Firmware Updates

Perform the following steps to automatically update your firmware and device database:

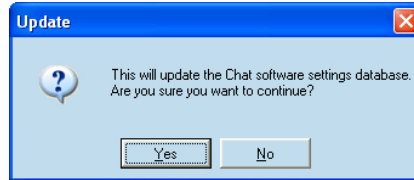
1. Click the **Check for updates** button to check the web for available updates.



2. The following series of messages appears below the progress bar:
    - "Locating website..."
    - "Website found"
    - "Click Update to load new firmware into device" (Appears only if a new firmware file is available.)
    - "Click Update to load new database information" (Appears only if a new device database file is available.)
- > **NOTE:** If no new firmware or device database updates are available, then the following messages appear below the progress bar:
- "Your device contains the most recent firmware"
  - "Your database contains the most recent updates"

This indicates that your firmware and database are current. No updates are required.

3. Click the **Update** button to install available updates. The Update dialog box appears.
4. Click **Update Firmware** to update firmware only.  
Click **Update Database** to update the device database only.  
Click **Cancel** to cancel the update procedure and return to the **Update Firmware** screen.
5. If you choose to update the device database, a warning dialog appears.
6. Click **Yes** to proceed with the firmware or device database update.
7. A second warning dialog appears. Click **Yes** to proceed.



8. A series of messages appears below the progress bar indicating that the updates are in progress.
  - > **NOTE:** Windows Vista may prompt you to unplug and then reconnect the CHAT 60 to complete the firmware update.
9. When the update is complete, a message appears below the progress bar depending on the upgrade:
  - **“Update Successful! The firmware for CHAT has been changed to <new revision level>”** where <new revision level> is the new firmware revision number.
  - **“Update Successful! The database has been updated to <new revision level>”** where <new revision level> is the new database version number.

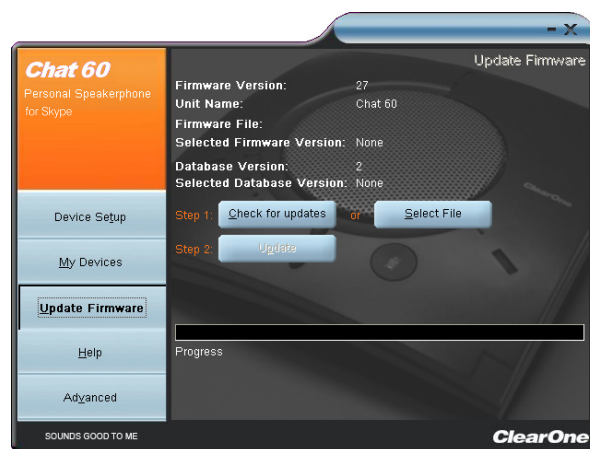
The most recent firmware and device database updates are now loaded.

## Manual Updates

- > **NOTE:** This procedure is for advanced users, technical support purposes, and corporate environments where IT security policies may prohibit automatic updates. Loading an incorrect firmware file can cause unpredictable results. In most cases, you should use the automatic update procedure by clicking the **Check for updates** button.

To manually change the firmware version loaded in the CHAT 60, use the procedure shown below.

1. Click the **Select File** button. An **Open** dialog appears.



2. From the List of file types drop-down menu, select either the Firmware or Database package to download.
3. A list of the appropriate CHAT files available on the system appears in the left hand scroll list. Select the file to upload and press the **OK** button or **Cancel** to cancel the update and return to the previous screen. If the update file was downloaded directly off the ClearOne Website, use the Folder list in the center-right side of this window to navigate to the appropriate folder where the downloaded file was saved.

4. Once the file has been located and highlighted, click the **Update** button to load the selected firmware file.
5. A warning dialog appears. Click **Yes** to load the selected firmware file or **No** to cancel.
6. A series of messages appears under the progress bar indicating the update is in progress.



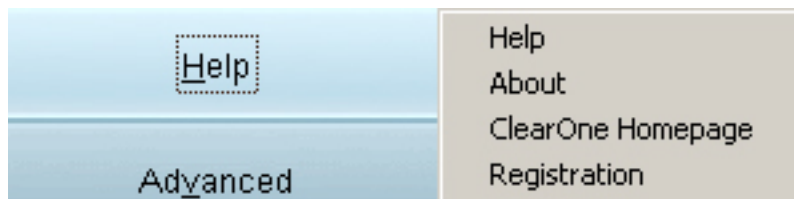
**WARNING:** Do not unplug the CHAT 60 while the manual update is in progress.

When the update is complete, a message will appear below the progress bar stating that the update has been successful with the appropriate revision level information if applicable.

- > **NOTE:** If firmware programming was interrupted, such as by a power loss or an accidental cable disconnection, the CHAT 60 might become unstable. In this case, refer to **Interrupted Firmware Update Recovery** in **Chapter 4** of this manual.

## HELP

The **Help** button provides the following options:



- Click **Help** to activate the online help file.
- Click **About** to get information about your CHAT 60
- Click **ClearOne Homepage** to visit the ClearOne Website using your default Web browser.
- Click **Registration** to register your CHAT 60 with ClearOne using your default Web browser.

## ADVANCED SETTINGS

Click the **Advanced** button to display the **Advanced Settings** screen.

The **Advanced** screen displays the current audio settings for your CHAT 60. From the **Advanced** screen, you can adjust audio settings for your CHAT 60, view and edit the CHAT 60 database, and view the CHAT 60 log file.

- » **NOTE:** The sections grayed out are not available for the CHAT 60 device.

### Advanced Settings: Audio Settings

The **Audio Settings** screen displays the current audio settings and allows you to change them.



Available audio settings include:

- **USB Audio:** Controls CHAT 60 audio settings connected via the USB to a PC or laptop. Use the **Mute** buttons to mute the microphone and/or speaker on the CHAT 60. Use the sliders to adjust the microphone level and speaker level. Speaker and microphone level adjustments made in the CHAT software will automatically change the speaker and microphone volume levels in Windows.

Any settings changes that made on this screen are instantaneously applied to the CHAT 60. In addition, the option to click on the **Save to Database** is available to capture the current settings and save them as a custom device.

Use the Database tab to select a specific application setup that has been previously saved.

Use the Log tab to view any CHAT 60 log files generated that describe issues that the device has encountered or updates that have been made to the CHAT 60 device.

- » **NOTE:** The volume settings in the CHAT software are synchronized with the Windows volume settings. Changing the volume using the CHAT software or the buttons on the CHAT 60 also changes the volume settings in Windows. Conversely, changing the volume settings in Windows also changes the settings in the CHAT software.

# CHAPTER 4: MAINTENANCE

## CARING FOR YOUR CHAT 60

- Follow all warnings and instructions marked on your CHAT 60
- Unplug the USB 2.0 cable from the CHAT 60 before cleaning.
- Unplug the power supply from the wall outlet before cleaning.
- Do not use liquid or aerosol cleaners. Use a damp cloth moistened with water to clean the outside of your CHAT 60 and power supply.

## TROUBLESHOOTING POOR SOUND QUALITY

If you experience poor sound quality, check the following list for solutions to common issues.

- Ensure the CHAT 60 is connected to your computer, start the CHAT application, then verify, test, and adjust the audio settings as needed to obtain good sound quality. Or select an appropriate ClearOne pre-programmed device and click **Apply** to apply the settings to the CHAT 60. If the issue remains unresolved, the 3rd Party device or application may be responsible for the poor sound quality. Refer to the device or application documentation, or contact the manufacturer's technical support for assistance.
- Verify that all cables are properly and securely connected. Refer to the connection diagram in **Chapter 2: Getting Started** of this manual for more information.
- If your CHAT 60 is connected to a USB hub, the USB hub must be connected to an external power source.
- If you have another USB device (such as a digital camera) connected to your computer on the same USB bus as your CHAT 60, Windows may generate the error message "USB Controller Bandwidth Exceeded." In this case, you must move the other USB device to a separate USB bus. The CHAT 60 is a high-performance USB device that requires sufficient bandwidth to function properly.
- Some USB cameras that use audio drivers are automatically assigned by Windows as the default audio playback device (even though the camera doesn't have a speaker). In this case, disconnect all USB devices (including your CHAT 60), reconnect the CHAT 60 to the USB bus first, then reconnect the other USB devices. This allows Windows to properly select the CHAT 60 as the default audio playback device.

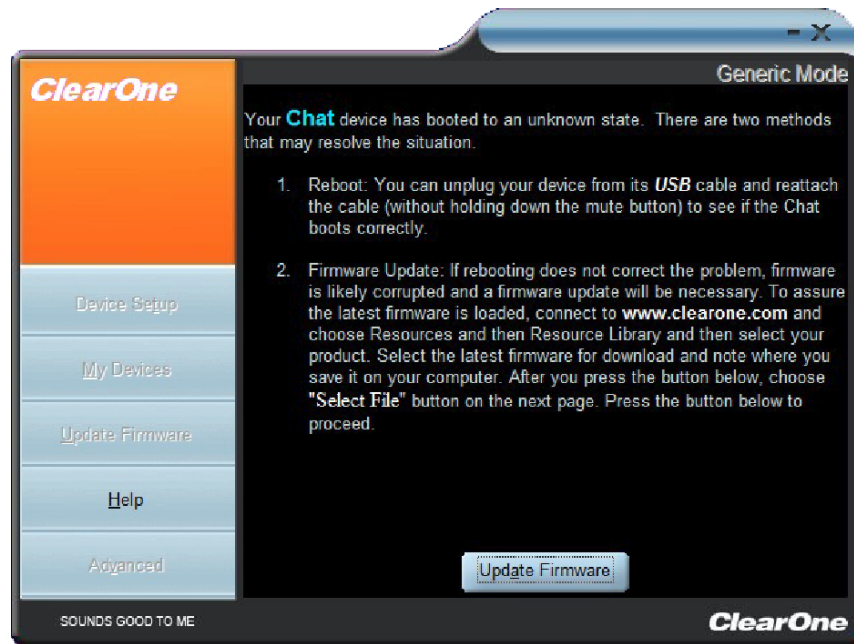
If you are unable to resolve the problem, please refer the support pages on our Website, or contact ClearOne Technical Support:

<b>PHONE:</b>	1.800.283.5936 (USA) or 1.801.974.3760
<b>FAX:</b>	1.800.974.3669 (USA) or 1.801.977.0087
<b>EMAIL:</b>	Tech.Support@ClearOne.com
<b>ON THE WEB:</b>	www.ClearOne.com

## INTERRUPTED FIRMWARE UPDATE RECOVERY

If a firmware update is interrupted by loss of power to the CHAT 60, the USB cable being disconnected, or an unexpected programming error, the CHAT 60 may not function properly. To restore firmware, boot the CHAT 60 in Generic mode using the instructions shown below.

1. Disconnect the USB cable from the CHAT 60
2. Hold down the **MUTE** button while re-connecting the USB cable.
3. The **Update Firmware Recovery** screen appears.
4. Click the **Update Firmware** button and follow instructions that appear on-screen. During the update, the messages "Initializing" and "Recovering" appear above the progress bar.
5. When the firmware file is recovered, the **Update Firmware** utility automatically runs (see the **Update Firmware** section for details).



The firmware is now restored and your CHAT 60 is ready to use.

In rare cases, Generic mode is unable to restore the firmware. If this occurs, the CHAT 60 automatically re-boots in protected (DFU) mode and attempts to restore the firmware. Follow the on-screen instructions then click the **Update Firmware** button, or contact ClearOne's Technical Support for assistance.

# CHAPTER 5: APPENDIX

## SPECIFICATIONS

### System Requirements

Windows XP  
Windows Vista  
Windows 7

### Connections

#### USB:

Version 2.0 Compatible  
Type: Mini-B Female

#### 3.5 mm Line I/O Mini-Plug:

Frequency Response: 20 Hz - 20 kHz +/- 1 dB  
Maximum Input/Output Levels: 0 dBu

Ring - Line Input:  
Input Impedance: 10 k $\Omega$

Tip - Line Output  
Output Impedance: 50  $\Omega$

Sleeve - Ground

### Controls

Volume Up  
Volume Down  
Microphone Mute

### Audio

#### Speaker:

Bandwidth: 220 Hz - 14 kHz  
Max Output Level: 82 dB SPL @ 1 foot (0.30 meter)

#### Microphone:

Bandwidth: 50 Hz - 7.75 kHz

### Processing

Full Duplex  
Acoustic Echo Cancellation (AEC)  
Noise Cancellation (NC)  
Line Echo Cancellation (LEC) - Selectable  
Automatic Level Control (ALC)

### Power

#### USB:

5 VDC @ 500 mA Maximum

#### External:

100 - 240 VAC Input  
7 VDC @ 500 mA Output

Tip: Power  
Ring: Ground

### Environmental

Operating Temperature:  
41 - 104° F (5 - 40° C)

### Mechanical

Dimensions (W x D x H):  
3.8" x 4.1" x 1.8"  
(9.7 cm x 10.4 cm x 4.6 cm)

Weight:  
0.55 lbs. (0.25 kg)

### Compliance

RoHS  
REACH  
FCC Class B Part 15  
ICES-003  
CE Listed  
UL Listed

### Model Numbers

910-159-251 CHAT 60

## EUROPEAN COMPLIANCE

See the ClearOne Website for specific and most up-to-date Compliance-related information at:

**[www.ClearOne.com/resources/EuroDOC.php](http://www.ClearOne.com/resources/EuroDOC.php)**

## FCC PART 15/ICES-003 COMPLIANCE

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules and Industry Canada ICES-003. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced Radio/TV technician for help.

## FCC PART 15.19(A) (3) COMPLIANCE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operation.

## WARRANTY

ClearOne (the Manufacturer) warrants that this product is free of defects in both materials and workmanship. For complete warranty information including length, coverage, and limitations, visit **ClearOne** on the Web @ **[www.ClearOne.com](http://www.ClearOne.com)**.

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