

**ClearOne**

**CHAT 50** Personal Speaker Phone

## USER MANUAL



## TECHNICAL SUPPORT

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### CHAT 50 USER'S MANUAL

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OTHER PATENTS PENDING.

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# CHAPTER 1: INTRODUCTION

## PRODUCT OVERVIEW

Thank you for purchasing the ClearOne Chat 50 personal speaker phone. The Chat 50 is a portable audio peripheral that connects to a wide variety of devices for hands-free communications and audio playback.

You can use the Chat 50 with a variety of devices and applications including:

- Internet telephony applications, such as Skype
- Enterprise telephones, such as Avaya, Cisco, and others
- VoIP softphones, such as Avaya, Cisco, and others
- Cell phones such as Nokia, Samsung, and others
- MP3 players, such as iPod and others
- Web conferencing applications such as IBM/Lotus Sametime, Microsoft NetMeeting, and others
- Instant messaging applications such as AIM, MSN, and others
- Desktop video conferencing hardware such as Polycom, Sony, and others
- Audio playback software such as iTunes, RealPlayer, and others
- VoIP applications such as TeamSpeak, Ventrilo, Roger Wilco, and others

## SERVICE AND SUPPORT

If you need assistance setting up or operating your Chat 50 personal speaker phone, 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](mailto:tech.support@clearone.com)

Web site: [www.clearone.com](http://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](mailto: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.





## IMPORTANT SAFETY INFORMATION

Read the safety instructions before using this product. This personal speaker phone 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.

## Save these instructions.

**WARNING: TO PREVENT FIRE OR ELECTRICAL SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.**

 <p>THE LIGHTNING FLASH AND ARROW HEAD WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF DANGEROUS VOLTAGE INSIDE THE PRODUCT</p>	<p><b>CAUTION</b></p> <p>RISK OF ELECTRIC SHOCK DO NOT OPEN</p> <p>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.</p>	 <p>THE EXCLAMATION POINT WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF IMPORTANT INSTRUCTIONS ACCOMPANYING THE PRODUCT.</p>
SEE MARKING ON BOTTOM / BACK OF PRODUCT		

## PACKAGE CONTENTS

The illustration below shows the parts that ship in the box with each model of the Chat 50. (Figure 1.1). Contact your dealer for replacement parts and accessories.



FIGURE 1.1 Chat 50 Package Contents

- › **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.

To ensure safety and regulatory compliance, use only the power supply provided with your Chat 50. Approved power supplies include: Glob Tek Model: GT- 41052-1507, and Pihong Model: PSA05R-070. If your power supply is lost or damaged, contact ClearOne technical support for an approved replacement.

## REPLACEMENT PARTS & ACCESSORIES

The illustration below shows all parts and accessories available for the Chat 50 (Figure 1.2). Contact your dealer for replacement parts or accessories.



FIGURE 1.2 Chat 50 Parts & Accessories

## CHAPTER 2: GETTING STARTED

### INSTALLING THE CHAT SOFTWARE FOR WINDOWS

- ▶ **Note:** The following instructions show Windows XP screenshots. However, the installation procedure is the same for Windows XP and all versions of Windows Vista.

1. Insert the Chat 50 CD into your computer's CD/DVD drive. Your system should will auto-run the installation software and display the initial menu screen (Figure 2.1).



- ▶ **Note:** If you do not have the CD, you can download the latest version of the software at: <http://www.clearone.com/support/downloads.php?content=main>. Select your device from the "BY PRODUCT" window and click **SEARCH** and the screen will display only those downloads available for your specific device. Select the latest version of the **Chat 50/150 Software** and the system will display a confirmation window for the software to be downloaded to your computer. Unzip the folder and run Setup.exe to begin the installation process.



2. Select **software** from the menu on the left of the screen and the Chat Setup Wizard will display the installation welcome screen (Figure 2.2).

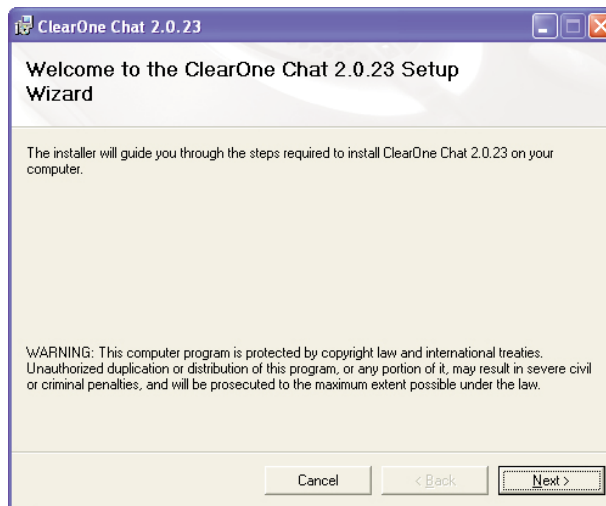


FIGURE 2.2 Chat 50 Installation Wizard Welcome Screen

3. Click **Next>**. The **License Agreement** screen appears (Figure 2.3). Read the license agreement and select the **I Agree** radio button, then click **Next>** to proceed with installation.

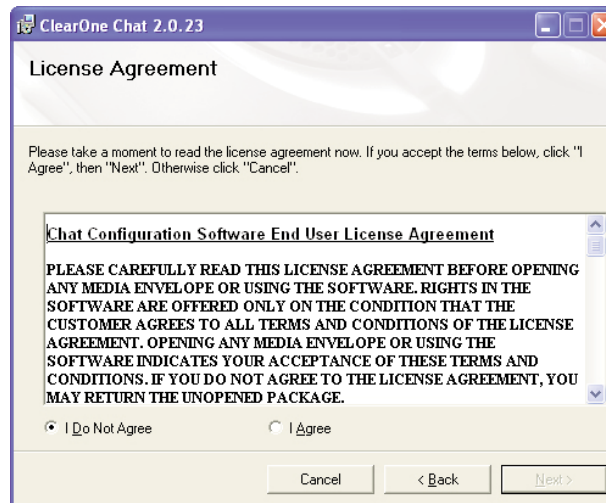


FIGURE 2.3 Chat 50 License Agreement screen

- The **Select Installation Folder** screen appears (Figure 2.4). Use the default directory, or click **Browse** to select an alternate directory. Click **Next>** to continue the installation.

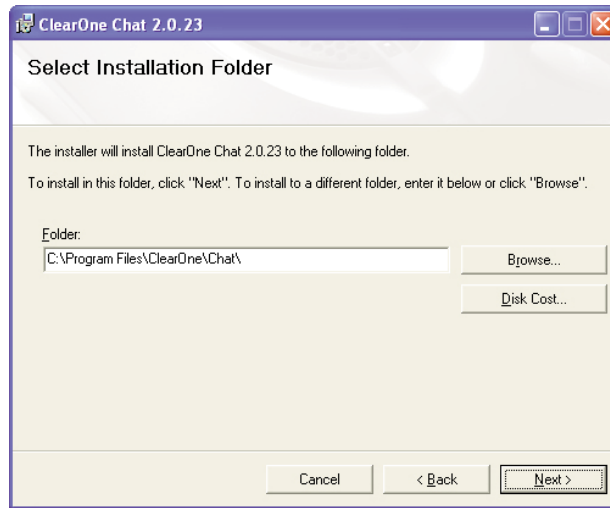


FIGURE 2.4 Chat 50 Select Installation Folder screen

- The **Confirm Installation** screen appears (Figure 2.5). Click **Next>** to continue the installation.

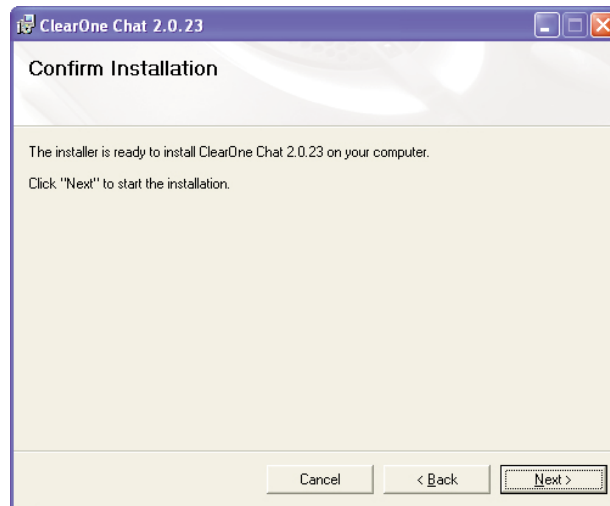


FIGURE 2.5 Chat 50 Confirm Installation screen

6. The **Installing ClearOne Chat** screen appears (Figure 2.6).

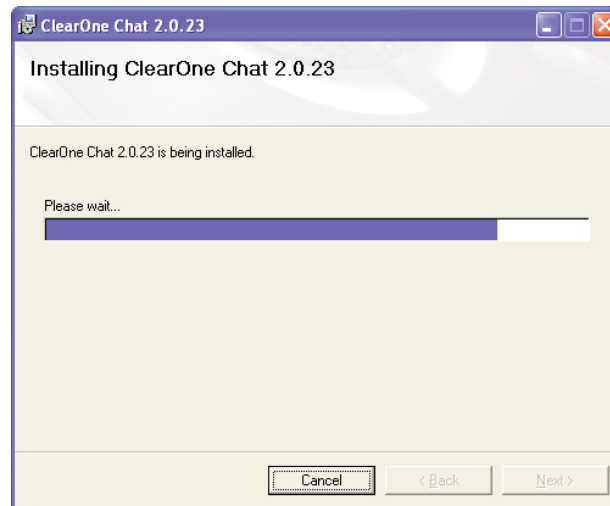


FIGURE 2.6 Installing ClearOne Chat Configuration Software screen

7. The **Device Driver Installation Wizard** screen appears. Click **Next>** to install the Chat software drivers for Windows. (When you first connect the Chat 50 to the USB port on your PC, there is an additional driver installation routine that installs the Chat 50 USB 2.0 drivers for Windows, as explained in the *Connecting and Configuring the Chat 50 (USB)* section.)

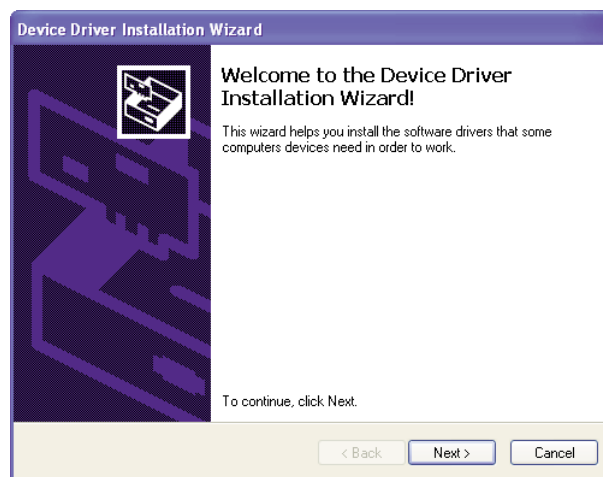


FIGURE 2.7 Chat 50 Device Driver Installation Welcome screen

8. After the Chat software device drivers are successfully installed, the **Driver Name** and **Status** appear in the **Device Driver Installation Wizard** screen (Figure 2.8). Click **Finish** to complete the installation.

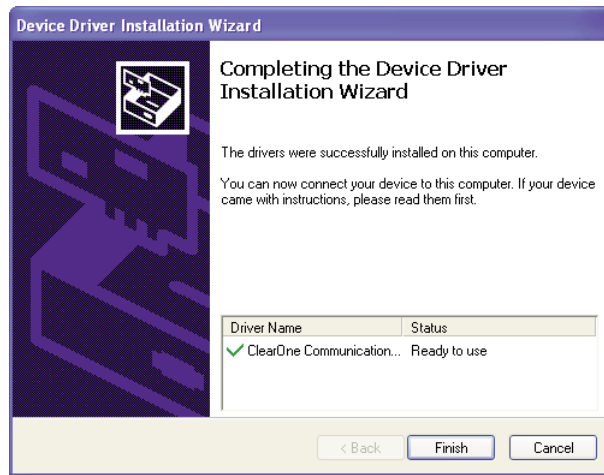


FIGURE 2.8 Chat 50 Completing the Device Driver Installation Wizard screen

9. The **Installation Complete** screen appears (Figure 2.9). Click **Close** to exit the Chat installation program.

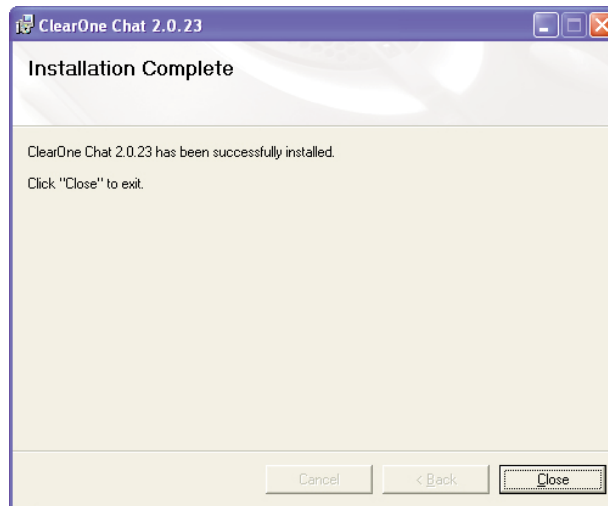



FIGURE 2.9 Chat 50 Installation Complete screen

The Chat software installation is complete. You can start the Chat software by double-clicking on the

**ClearOne Chat** icon  that is now on your Windows desktop, or through the Windows **Start** menu (**Start** > **All Programs** > **ClearOne Communications** > **Chat** > **ClearOne Chat**).



Before using the Chat 50 for the first time, proceed with the audio settings configuration procedure that starts on page 10. This will ensure optimal sound quality for each device and application you plan to use with the Chat 50.

## INSTALLING THE CHAT SOFTWARE FOR APPLE OS X

1. Insert the **Chat 50 Installation & Documentation CD**.
2. Navigate to the **Mac Application** folder on the CD.
3. Double-click on the **Chat1.0.1.dmg** file.
4. The computer creates a virtual drive on the desktop, and places the Chat application on the virtual drive.
5. Drag the **Chat** application to the **Applications** folder (Figure 2.10).

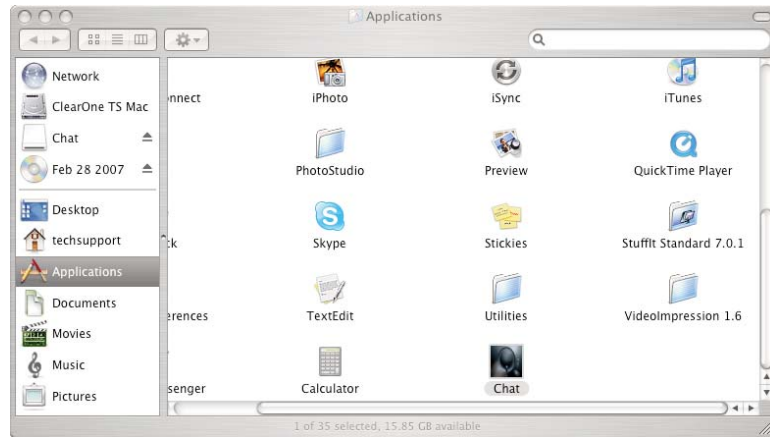


FIGURE 2.10 Mac Applications Folder with Chat software installed

6. The Chat software is now installed for Mac OS X.
7. Start the Chat application by double-clicking the **ClearOne Chat** icon in the **Applications** folder.
8. Connect the Chat 50 to your Mac using the included USB cable (refer to Figure 2.11 in the next section).
9. Proceed to the *Optimizing Sound Quality* section to tune the audio settings for each application and device you will be using.

## CONNECTING AND CONFIGURING YOUR CHAT 50 (USB-WINDOWS)

1. Use the included USB cable to connect the Chat 50 to a USB port on your computer (Figure 2.11).

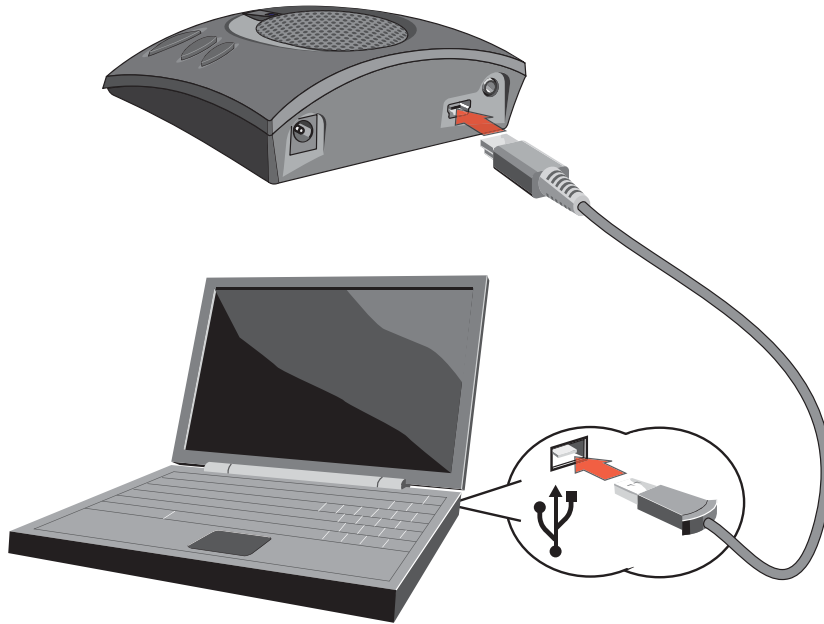


FIGURE 2.11 Connecting Chat 50 to a PC

2. The status LED on the front of the Chat 50 turns blue, then red, then blue again to indicate that Windows recognizes the Chat 50. The **Windows New Hardware Found** dialog appears and Windows installs the USB 2.0 device drivers for Chat on your system. When the installation is complete, click **Close**.
3. Start the Chat application by double-clicking the **ClearOne Chat** icon on your desktop (Figure 2.12).

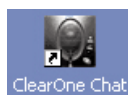


FIGURE 2.12 ClearOne Chat desktop icon

4. The Chat application appears (Figure 2.13).

5. Click the **Device Setup** button in order to select and configure pre-defined audio settings for the devices you will use with your Chat 50 (Figure 2.13).



FIGURE 2.13 Chat 50 Main Screen

6. The **Device Setup** screen appears (Figure 2.14) with a list of devices displayed in the **Select 1st** column. This column displays the general types of devices that you can configure for use with the Chat 50.



FIGURE 2.14 Chat 50 Device Setup: Select 1st column

7. Select the appropriate device from the **Select 1st** list. The Chat software populates the **Select 2nd** column with available devices based on your selection (Figure 2.15).

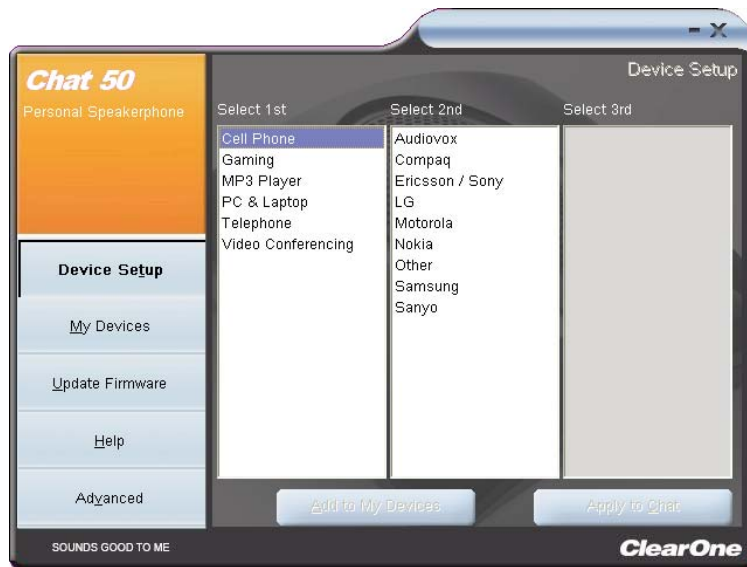


FIGURE 2.15 Chat 50 Device Setup: Select 2nd column

8. Select a manufacturer or device type in the **Select 2nd** column. If your specific device is not listed, select either the **Other** or the **All** option. The Chat software populates the **Select 3rd** column based on your selection (Figure 2.16).



FIGURE 2.16 Chat 50 Device Setup: Select 2nd column

9. Select a model in the **Select 3rd** column. If your specific device or application is not listed, select either the **Other** or the **All** option. After making your selection, the **Add to My Devices** and **Apply to Chat** buttons appear at the bottom of the Device Setup screen.
10. When you are satisfied with your selections in all three columns, click **Add to My Devices**. This saves the audio settings for the device you just created to the device database, and allows you to instantly select them and apply them to the device in the future.
11. Click **Apply to Chat** to apply the audio settings to the Chat 50.



12. If you will be using your Chat 50 with external devices, such as a cell phone, MP3 player, or desktop video conferencing device, connect it using the connection diagrams on pages 13 through 16 (optional).

- ▶ **Note:** When connecting to an analog device, you can leave the Chat 50 connected to your PC. The Chat 50 will continue to receive power through the USB cable, eliminating the need to use the Chat 50's external AC power adapter.

13. Repeat steps 1 through 12 for any additional devices you will be using with your Chat 50.



To ensure optimal sound quality, you need to customize the Chat 50's audio settings for every application and device you will use. Refer to the tuning procedures in the *Optimizing Sound Quality* section below.

If you need assistance, click the **Help** button in the Chat application, refer to *Chapter 3: Using Chat 50 Configuration Software*, or contact ClearOne technical support using the contacts provided on the inside cover of this manual.

## OPTIMIZING SOUND QUALITY

For optimal sound quality, you must adjust the Chat 50's audio settings for each device and application you will be using as described in the procedures below.

- ▶ **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 50 also changes the volume settings in Windows. Conversely, changing the volume settings in Windows also changes the settings in the Chat software.

### Using The Chat Application With Pre-Defined Device Settings

The pre-defined device settings available in the Chat application will provide good sound quality for many of the most popular devices used with the Chat 50. If you used the procedure in the previous section to configure the Chat 50's settings for one of these devices, test the sound quality before performing any additional tuning. If you are satisfied with the sound quality, no further adjustments are necessary.

### Using A Third-Party Application

If you are using the Chat 50 with an application other than Chat—such as Cisco Communicator or Skype—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 audio settings for optimal sound quality as explained in the next section.

### 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. For external hardware devices, connect the device to the Chat 50 using the connection diagrams on pages 13 through 16.
4. Adjust the speaker and volume settings on the external device or in the application to 50% (half volume).
5. 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; use the **Line Audio** section to tune external hardware devices connected to the Chat 50's 3.5mm port.
  - ▶ **Note:** In the **Advanced** screen, adjusting **Microphone Level** under **USB Audio** changes the Chat 50 microphone volume for USB applications, while adjusting the **Output Level** under **Line Audio** changes the microphone volume being sent to the device connected to the Chat 50's line audio jack. Likewise, adjusting **Speaker Level** under **USB Audio** changes the Chat 50 speaker volume, while adjusting the **Input Level** under **Line Audio** changes the speaker volume being received from the connected device.
6. Place a call using the device or application. Land lines provide the best audio for tuning purposes.
7. 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 **Input** slider in the Chat application until the caller's voice can be clearly heard. Repeat as needed to find the optimal speaker volume for the device.

8. 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 **Output** slider until the caller can hear you clearly. Repeat the test count as needed to find the optimal microphone volume for the device.
9. 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.
10. 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 devices and applications, click the **My Devices** button, select the desired device or application, then click the **Apply to Chat** button. The audio settings are instantly applied for the chosen device or application.

## CONNECTING YOUR CHAT 50 TO EXTERNAL DEVICES

The following sections explain how to connect your Chat 50 to devices other than a PC or Mac.

### Connecting Chat 50 to a Telephone

1. Using the included power supply (Chat USB Plus, International, and Global Traveller models only), connect the Chat 50 to a power outlet as shown in Figure 2.17.
2. Using a ClearOne telephone connection cable (available separately), connect the Chat 50 to your telephone's headset jack as shown in Figure 2.17. Contact your dealer to order ClearOne cables and accessories.

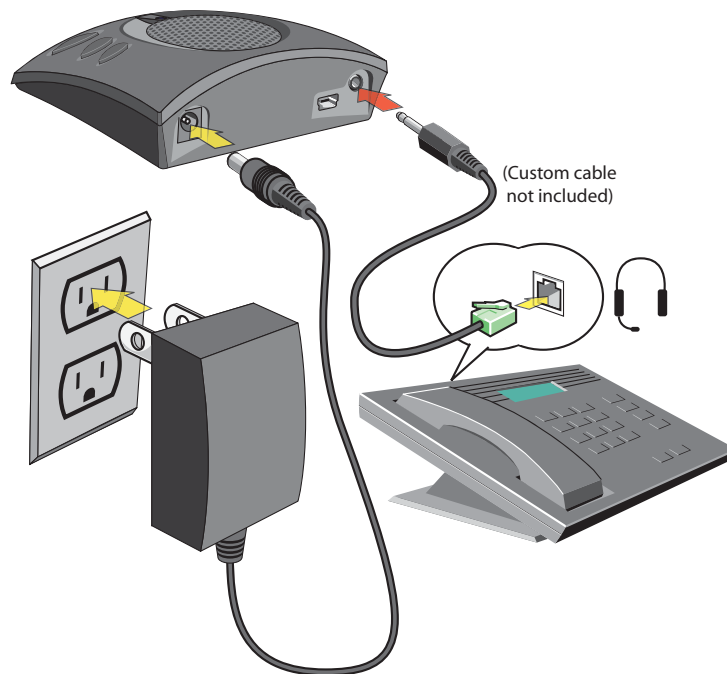


FIGURE 2.17 Connecting Chat 50 to a telephone



**DO NOT** plug the telephone cable from the Chat 50 into a jack on the telephone that is intended for connecting a telephone line. Doing so can cause serious damage to the telephone or the Chat 50.

### Connecting Chat 50 to a Cell Phone

1. Using the included power supply (Chat USB Plus, International, and Global Traveller models only), connect the Chat 50 to a power outlet (Figure 2.18).
2. Using the included 2.5mm to 3.5mm cell phone connector cable, connect the Chat 50's **line audio jack** to the **headset jack** of the cell phone.

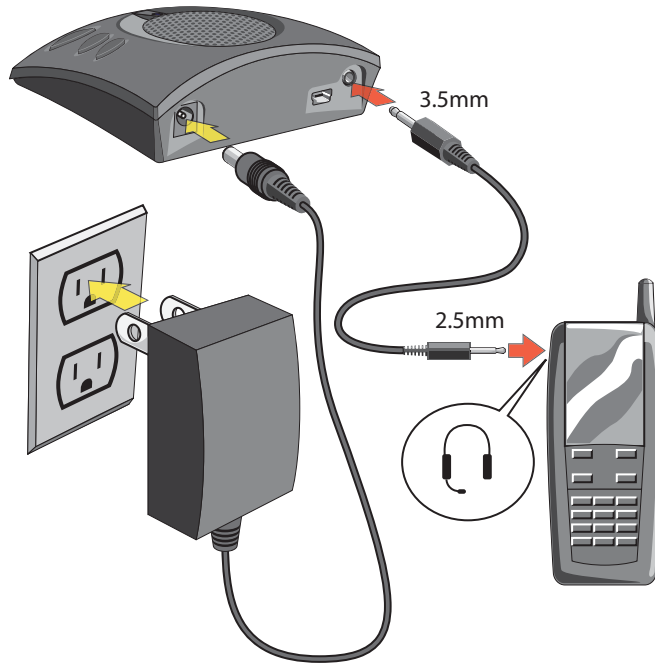


FIGURE 2.18 Connecting Chat 50 to a Cell Phone

### Connecting Chat 50 to an MP3 Player

1. Using the included power supply (Chat USB Plus, International, and Global Traveller models only), connect the Chat 50 to a power outlet (Figure 2.19).
2. Using a ClearOne MP3 accessory cable (available separately, P/N 830-159-005), connect the Chat 50's **line audio** jack to your MP3 player's **headset jack** as shown in Figure 2.19. Contact your dealer to order cables and other accessories.

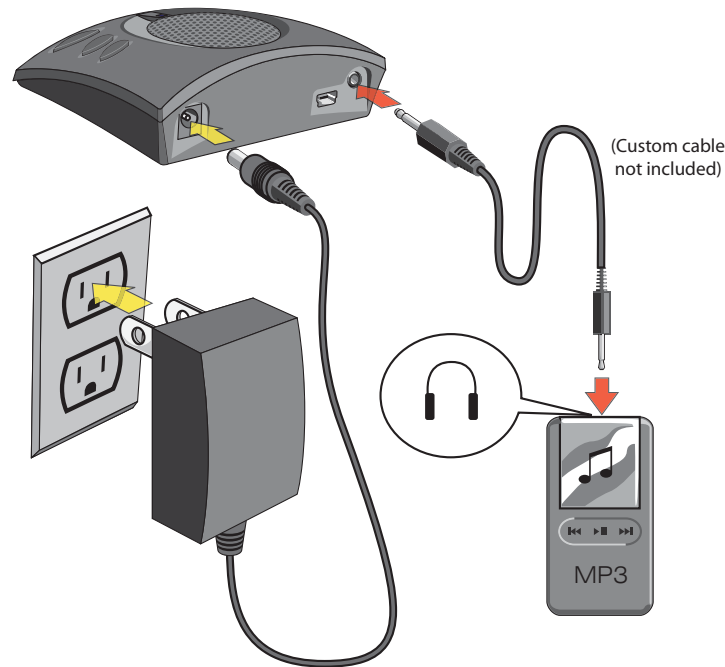
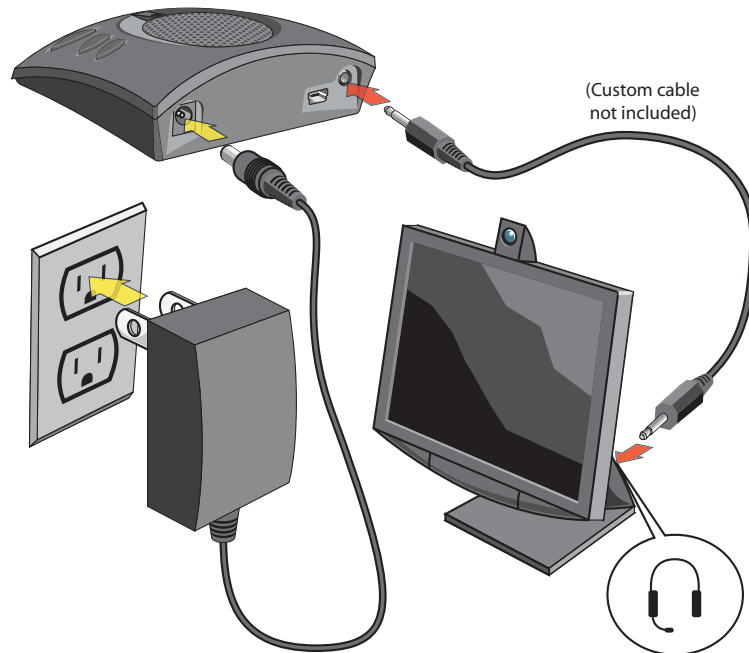


FIGURE 2.19 Connecting Chat 50 to an MP3 player

## Connecting Chat 50 to a Desktop Video Conferencing Device

In addition to using the Chat 50 with PC-based webcams and video conferencing applications via USB, you can also use it with stand-alone video conferencing devices.

1. Using the supplied power supply (USB Plus only), connect the Chat 50 to a power outlet (Figure 2.20).
2. Using a ClearOne accessory cable (available separately), connect the Chat 50's **line audio jack** to the device's **headset jack** (Figure 2.19). ClearOne makes two cables for desktop video conferencing with Chat: 3.5mm plug to dual RCA plug; and 3.5mm plug to 3.5mm plug. Contact your dealer to order cables and other accessories.



**FIGURE 2.20** Connecting Chat 50 to a desktop video conferencing device

## CHAPTER 3: USING THE CHAT APPLICATION

### DEVICE SETUP

**Device Setup** configures the Chat 50 for use with specific devices to ensure optimal sound quality. To configure the Chat 50, use the procedure shown below (refer to Figure 3.1 for all steps).

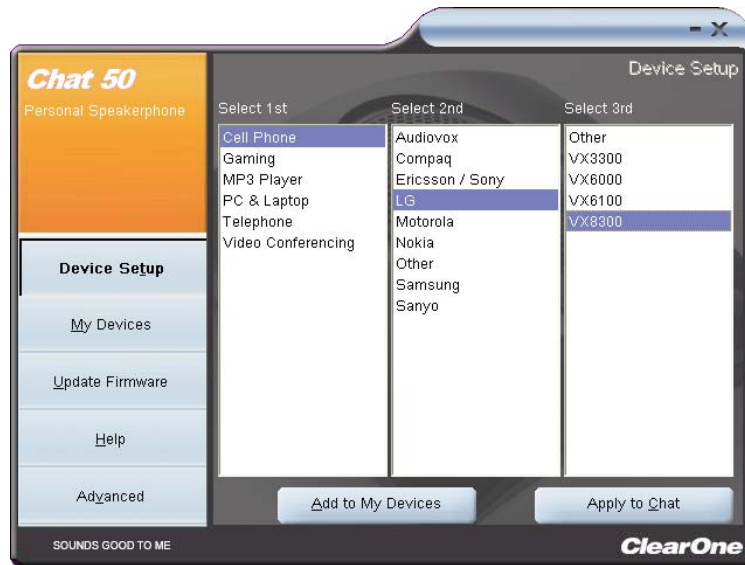


FIGURE 3.1 Device Setup screen

1. Select a device in the **Select 1st** column.
2. Select a manufacturer in the **Select 2nd** column.
3. Select a model in the **Select 3rd** column.
4. Click the **Add to My Devices** button to add this device to your **My Devices** list.
5. Click the **Apply to Chat** button to apply these audio settings to the Chat 50.

If the device, manufacturer, or model is not available, select either the **Other** or the **All** option in the appropriate column. Doing so provides a basic audio configuration for the device, and allows you to change it as needed to achieve optimal sound quality. See the *Tuning with the Chat Application* on page 12 for instructions.

## MY DEVICES

The **My Devices** screen displays the devices you have configured for the Chat 50 (Figure 3.2) .



FIGURE 3.2 My Devices Screen

### Applying Audio Settings to the Chat 50

Select the device you wish to use with the Chat 50, then click the **Apply to Chat** button to apply the custom audio settings.

### Removing Devices from My Devices

To remove a device from the **My Devices** list, select the device you wish to remove and then click the **Remove from My Devices** button, then click **Yes** in the **Delete Confirm** dialog that appears.

## UPDATE FIRMWARE

Clicking the **Update Firmware** button displays the update firmware screen (see Figure 3.5).



FIGURE 3.5 Update Screen

The **Update Firmware** screen displays the current firmware version, unit name, and checks ClearOne's website for available firmware and device database updates. Using **Update Firmware**, you can automatically update the Chat 50 with the most recent firmware and device database, or you can use the **Select File** button to manually load an existing firmware file.

- ▶ **Note:** The computer your Chat 50 is connected to must be connected to the internet in order to use the **Check for updates** option.

### Check for Updates (Automatic 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 (see Figure 3.6).

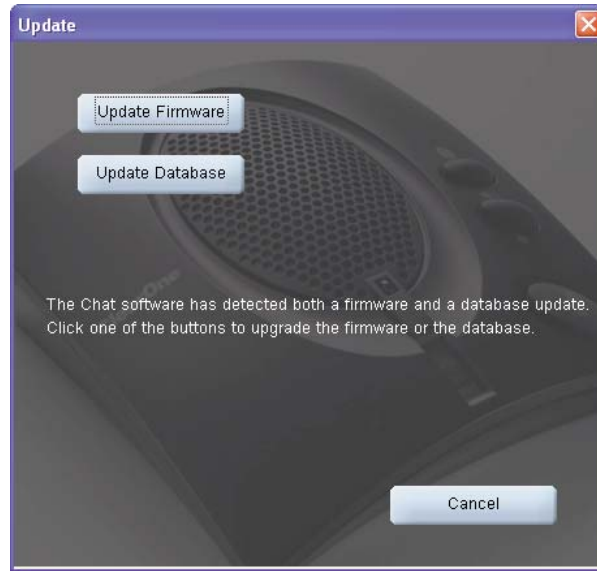


FIGURE 3.6 Update Dialog

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 (see Figure 3.7).



FIGURE 3.7 Update Warning Dialog

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 will prompt you to unplug and then reconnect the Chat 50 to complete the firmware update.
9. When the update is complete the following messages appear below the progress bar:
  - "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.

## Select File (Manual Update)

- › **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 50, use the procedure shown below.



FIGURE 3.8 Update Firmware: Select File

1. Click the **Select File** button. An **Open** dialog appears.
2. A list of the available firmware files on your system appears in a scroll list on the left side of the screen.
3. Select the firmware file you wish to load and click the **OK** button.
4. 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.
  - › **Note:** Windows Vista will prompt you to unplug and then reconnect the Chat 50 to complete the firmware update.

When the update is complete, the following message appears below the progress bar:

"Update Successful! The firmware for Chat has been changed to <new revision level>" where <new revision level> is the new firmware revision number.

## HELP

The **Help** button (see Figure 3.9) provides the following options:

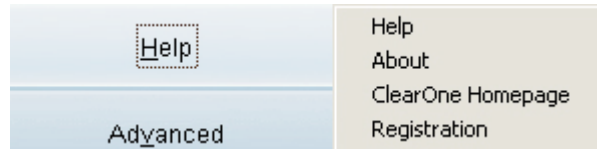


FIGURE 3.9 Help button

- Click **Help** to activate the online help file.
- Click **About** to get information about your Chat 50.
- Click **ClearOne Homepage** to visit the ClearOne website using your default web browser.
- Click **Registration** to register your Chat 50 with ClearOne using your default web browser.

## ADVANCED SETTINGS

Click the **Advanced** button to display the **Advanced Settings** screen (see Figure 3.10).

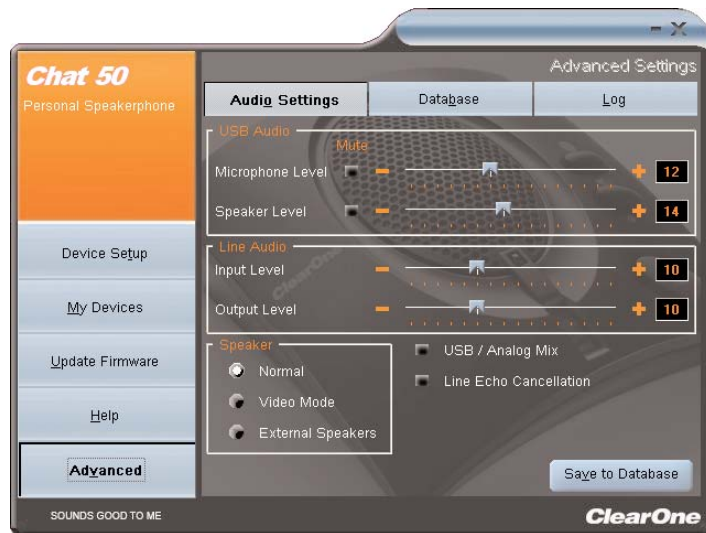


FIGURE 3.10 Advanced Settings screen

The **Advanced** screen displays the current audio settings for your Chat 50. From the **Advanced** screen, you can adjust audio settings for your Chat 50, view and edit the Chat 50 database, and view the Chat 50 log file.

## Advanced Settings: Audio Settings

The **Audio Settings** screen (Figure 3.11) displays the current audio settings and allows you to change them (Figure 3.11). You can also create custom audio settings for a particular device (see the *Advanced Screen: Database* section for more information).

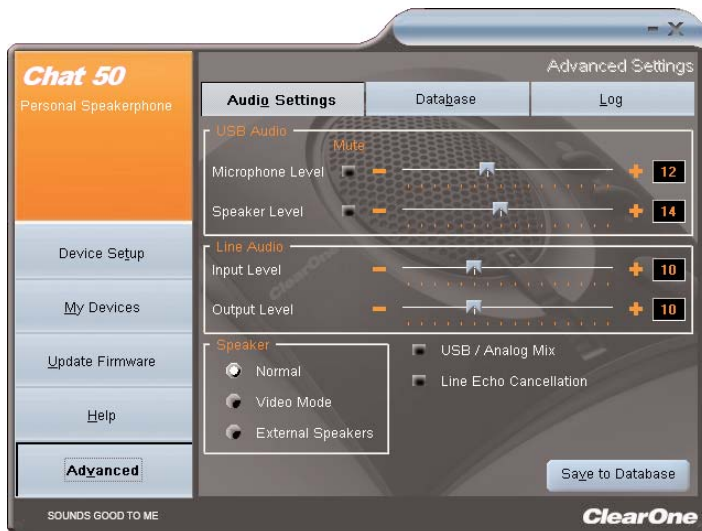


FIGURE 3.11 Advanced Settings: Audio Settings

Available audio settings include:

- **USB Audio:** Controls Chat 50 audio settings when it is connected via USB to your computer. Use the mute buttons to mute the microphone or speaker on the Chat 50. 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.
- **Line Audio:** Controls line-in and line-out audio levels when the Chat 50 is connected to devices through its 3.5mm jack. These controls are grayed out (unavailable) when there are no devices connected to the 3.5mm jack. Use the input slider to adjust the level of the incoming audio to the speaker; use the output slider to adjust the level of the outgoing audio to the far end.
- **Speaker:** Controls speaker settings when the Chat 50 is connected to devices through its 3.5mm port:
  - **Normal:** USB audio and line-in audio from the 3.5mm jack are mixed through the Chat 50 speaker.
  - **Video Mode:** Routes audio from the far end of the conference call to the connected video conferencing device or application instead of the Chat 50 speaker. USB audio is routed through the Chat 50 speaker. Ensure that the Chat 50 is properly connected using the appropriate accessory adapter cable (sold separately). See figure 2.19 for the connection diagram.
  - **External Speakers:** Routes both USB and line-in audio sources to external speaker(s) connected to the Chat 50's 3.5mm jack. In this mode, the Chat 50 functions as a microphone only. This is useful for video conferencing to ensure the audio and video originate from the same point in the room.
- **Line Echo Cancellation:** Enables line echo cancellation, which eliminates echo when the Chat 50 is connected to a telephone. Telephones route audio from the mouthpiece to the earpiece so that you can hear yourself talk, which causes feedback when using a speaker phone.
  - › **Note:** Enabling line echo cancellation may cause audio problems if the Chat 50 is not connected to a telephone.

### Advanced Settings: Database



The **Database** screen allows you to view devices, create devices, and edit devices in the Device Database. (Figure 3.12). The database includes pre-defined devices with optimal audio settings pre-programmed by ClearOne (identified by a  next to the devices); and custom devices you create using this screen or the My Devices screen (indicated by a  next to the devices).



FIGURE 3.12 Advanced Settings: Database

### View Device Audio Settings

To view settings for a device, select the device's row in the Database screen and click **View**. The **View Database Record** dialog appears (Figure 3.13). To view the current settings on the Chat 50, click **Upload from Chat**. Use the sliders, radio buttons, and check boxes to change the audio settings (if needed), then click **Ok** to save the changes.

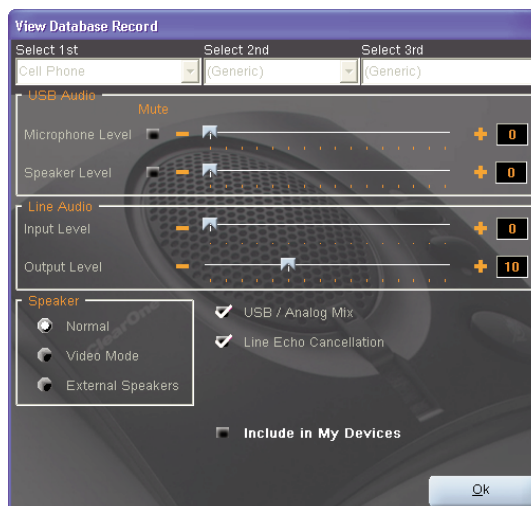


FIGURE 3.13 View Database Record dialog

### Create A New Device

To create a new device with custom audio settings, use the following procedure:

1. Click the **New** button. The **Add Settings to Database** dialog appears (see Figure 3.14).

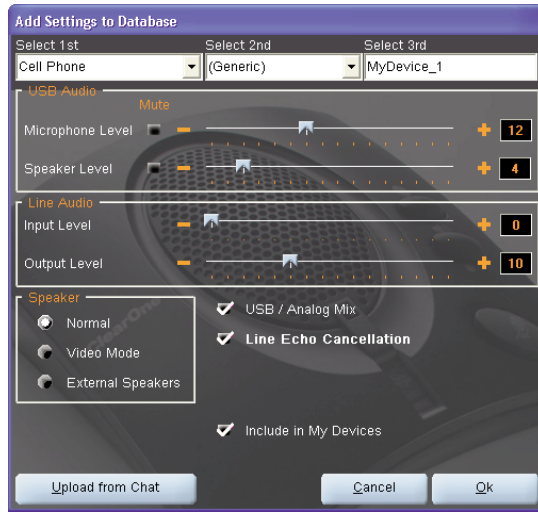


FIGURE 3.14 Add Settings to Database dialog

2. Adjust the audio settings as needed, or click **Upload from Chat** to upload and display the Chat 50's current audio settings.
3. Use the **Select 1st** and **Select 2nd** lists to select a device type and manufacturer for the device; select either the **Other** or the **All** if no appropriate setting is available. Enter a custom name for your device in the **Select 3rd** entry field.
4. The **Include in My Devices** checkbox is selected by default to include this device in **My Devices**. When you are finished, click **OK**.

The device is now available in the **My Devices** and **Device Setup** screens.

### Editing Custom Devices

To edit custom devices, select the device in the Advanced Settings: Database screen, then click the **Edit** button that appears instead the **View** button that is shown for pre-configured ClearOne devices. The **Edit Database Record** appears (Figure 3.15). Change the device name and/or settings as needed, then click **Ok**.

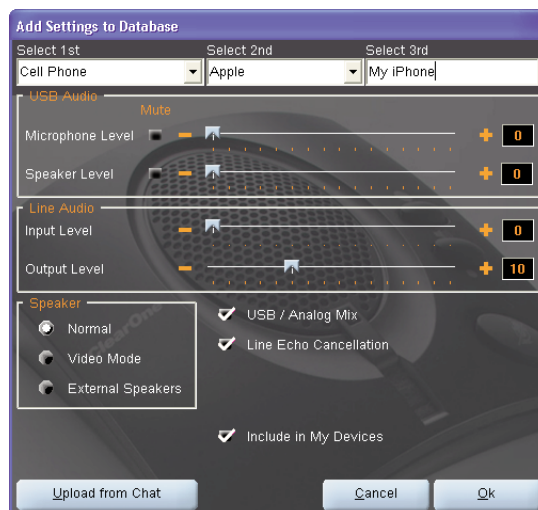


FIGURE 3.15 Edit Database Record dialog

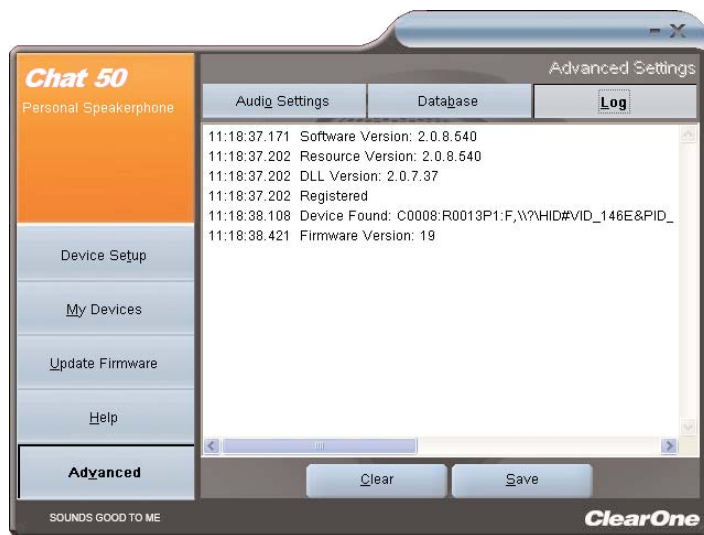
Adjust the audio settings as you wish or click **Upload from Chat** to upload the Chat 50's current audio settings. When you are finished editing the record, click **OK**. If you wish to cancel your edits, click **Cancel**.

### *Deleting Custom Devices*

To delete custom devices from the database, simply click the **Delete** button after selecting the device you wish to delete. You can only delete custom devices; you cannot delete pre-programmed devices (devices with the ClearOne icon next to them).

## **ADVANCED SETTINGS: LOG**

The Chat application keeps a log of device events, firmware upgrades, and software upgrades in a text file. You can view, save, and print the log as needed. To view the log, select the **Advanced** tab, then click the **Log** button. The log is displayed in the center pane (Figure 3.16).



**FIGURE 3.16** Advanced Screen: Log

### *Saving the Log*

To save the log to a text file, click the **Save** button. A standard Windows save dialog appears. Name the file and choose a directory to save the file in. The default directory is the *Chat 50 Log*, which is located in the same directory as the Chat software.

### *Printing a Log File*

Open the log file by double-clicking on its icon, then use the text editor application in Windows or OS X to print the file.

### *Clearing the Log*

Click **Clear** to clear the events listed in the log. This action cannot be undone.



## CHAPTER 4: CHAT 50 CONTROLS

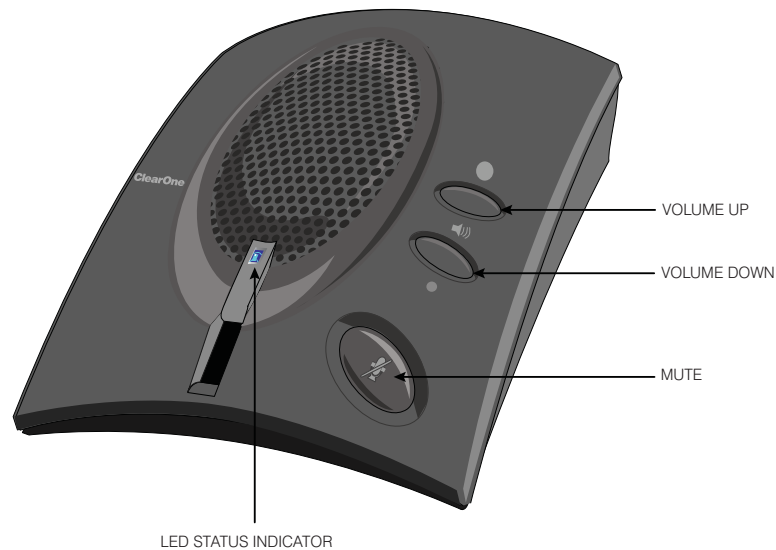


FIGURE 4.1 Chat 50 with control buttons labeled

### POWER LED INDICATOR

The LED status indicator lights blue when the Chat 50 is connected to a PC or Mac via USB, or when the Chat 50 is plugged into AC power. The LED status indicator changes to red when mute is on (Figure 4.1).

### VOLUME UP/DOWN AND MUTE BUTTONS

Use the **Volume Up/Down** buttons to adjust the volume level of the Chat 50. Use the **Mute** button to mute the Chat 50's microphone until the button is pressed again (Figure 4.1).

If you are using the Chat 50 with a PC, you can also use the Chat application or the volume controls in Windows to make these adjustments.

- › **Note:** If your Chat 50 is connected to a PC, any changes you make to volume by pressing the Chat 50 buttons also change the volume settings in Windows.



# CHAPTER 5: MAINTENANCE

## CARING FOR YOUR CHAT 50

- Follow all warnings and instructions marked on your Chat 50.
- Unplug the USB 2.0 cable from the Chat 50 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 50 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 50 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 50. If the issue remains unresolved, the third-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 appropriate connection diagrams in *Chapter 2: Getting Started* of this manual for more information.
- If your Chat 50 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 50, 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 50 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 50), reconnect the Chat 50 to the USB bus *first*, then reconnect the other USB devices. This allows Windows to properly select the Chat 50 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:

**PHONE:** 1.800.283.5936 (USA) or 1.801.974.3760

**FAX:** 1.800.974.3669 (USA) or 1.801.977.0087

**EMAIL:** [tech.support@clearone.com](mailto:tech.support@clearone.com)

**ON THE WEB:** [www.clearone.com](http://www.clearone.com)

## RECOVERING FROM AN INTERRUPTED FIRMWARE UPDATE

If a firmware update is interrupted by loss of power to the Chat 50, the USB cable being disconnected, or an unexpected programming error, the Chat 50 may not function properly. To restore firmware, boot the Chat 50 in Generic mode using the instructions shown below.

1. Disconnect the USB cable from the Chat 50.
2. Hold down the **MUTE** button while re-connecting the USB cable.
3. The **Update Firmware Recovery Screen** appears (Figure 5.1).
4. Click the **Update Firmware** button and follow instructions that appear on-screen.
5. During the update, the messages “Initializing” and “Recovering” appear above the progress bar.
6. When the firmware file is recovered, the **Update Firmware** utility automatically runs (see the *Update Firmware* section for details).



FIGURE 5.1 Update Firmware recovery screen

The firmware is now restored and your Chat 50 is ready to use.

In rare cases, Generic mode is unable to restore the firmware. If this occurs, the Chat 50 automatically reboots in protected (DFU) mode and attempts to restore the firmware. Follow the instructions that appear on screen, or contact ClearOne technical support for assistance.

# CHAPTER 6: APPENDIX

## SPECIFICATIONS

### Connections

#### USB connector

Version 2.0 compatible  
Type: Mini B

#### External audio

Type: 3.5mm (1/8") mini-plug  
Tip: Line output (transmit)  
Ring: Line input (receive)  
Sleeve: Ground

#### DC Power

### Controls

Volume up  
Volume down  
Microphone mute

### Audio

#### Speaker

Bandwidth: 150Hz-15kHz  
Max output level: 80dB SPL @ 1 foot

#### Microphone

Bandwidth: 50Hz-8kHz

#### Line input

Frequency response: 20Hz-20kHz +/- 1dB  
Maximum input level: 0 dBu  
Input impedance: 10K Ohms

#### Line output

Frequency response: 20Hz-20kHz +/- 1dB  
Maximum output level: 0 dBu  
Output impedance: 50 Ohms

### Processing

Acoustic echo cancellation  
Noise cancellation  
Line echo cancellation (selectable)

### Power

USB-powered  
5 VDC @ 500mA maximum

External power supply  
100 - 240 VAC input  
7 VDC @ 500mA output

### Environmental

Operating temperature: 32-122 degrees F

### Mechanical

Dimensions (WxDxH): 3.8" x 4.1" x 1.8" (9.7cm x 10.4cm x 4.8cm)  
Weight: 0.55 lbs. (.25 kg)

### Operating Systems Supported

Microsoft Windows XP (all versions)  
Microsoft Windows Vista (all versions)  
Apple OS X 10.3 or higher (Macintosh)

## COMPLIANCE

The following paragraphs present all of the required compliance and declaration of conformity information.

### EUROPEAN COMPLIANCE

Conformity of the equipment with the guidelines below is attested by the CE mark.



EC Declaration of Conformity

Manufacturer's Name: ClearOne Communications  
Manufacturer's Address: Edgewater Corporate Park South Tower  
5225 Wiley Post Way  
Suite 500  
Salt Lake City, Utah 84116 U.S.A.  
EU Representative Name: ClearOne Communications Ltd.  
Atlantic House  
Imperial Way  
Reading Berkshire  
RG2 0TD  
United Kingdom  
Model: Chat 50

#### Product Standard(s) to which Conformity of the Council Directive(s) is declared:

##### EMC 2004/108/EC "Electromagnetic Compatibility (EMC) Directive":

EN 55022: 2006 (Emissions)	Information technology equipment - Radio disturbance characteristics
EN 61000-3-2: 2004	Part 3: Limits -Section 2: Limits for harmonic current emissions.
EN 61000-3-3: 2002	Section 3: Limitation of voltage fluctuations and flicker in low voltage supply systems for equipment with rated current up to and including 16A.
EN 55024: 1998 (immunity) +A1+A2	Information technology equipment - Immunity characteristics - Limits and methods of measurements.
EN 61000-4-2: 2001	Electrostatic Discharge Immunity
EN 61000-4-3: 2002	Radiated RF Immunity
EN 61000-4-4: 2004	Electrical Fast Transients Immunity
EN 61000-4-5: 2005	Lighting Surge Immunity
EN 61000-4-6: 2004	Conducted RF Immunity
EN 61000-4-8: 1993	Power Frequency Magnetic Field Immunity
EN 61000-4-11: 2004	Voltage Dips and Voltage Interruptions

##### 73/23/EEC "Low Voltage Directive (LVD)":

IEC 60950-1: 2001	Safety of Information Technology Equipment, Including Electrical Business Equipment.
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##### RoHS -2002/95/EC Restriction of the Use of certain Hazardous Substances in Electrical and Electronic Equipment (EEE) & WEEE-2002/96/ED Waste of Electronic Equipment (EEE).

We herein certify that the products listed above are in compliance with the EU directive 2002/95/EC and EU directive 2002/96/EC.

We, the undersigned, hereby declare that the equipment specified above conforms to the above directives and standards. Date of Issue: November 21, 2007.

Legal Representative in Europe  
/s/ Greg A. LeClaire \_\_\_\_\_  
Signature  
Greg A. LeClaire,  
CFO

##### Waste Electrical and Electronic Equipment "WEEE" Directive 2002/95/EC"

ClearOne is compliant with the WEEE directive. For recovery and recycling information, visit:  
[www.clearone.com/support/recycling.php?content=main](http://www.clearone.com/support/recycling.php?content=main)

### **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 Communications, Inc. (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).

ClearOne Communications, Inc.  
Edgewater Corporate Park South Tower  
5225 Wiley Post Way  
Suite 500  
Salt Lake City, Utah 84116 U.S.A.

