

Table of Contents

Welcome to FreeTel™

1. [Introduction](#)
2. [User Registration](#)
3. [Testing Microphone and Speakers](#)
4. [Adjusting Microphone and Speaker Settings](#)

5. [How to Place a Call](#)
6. [How to Talk on FreeTel](#)
7. [Electronic Phone Directory](#)
8. [Advanced Caller ID](#)
9. [Main FreeTel Window](#)
10. [Special Options](#)
11. [File Transfer](#)
12. [Phone Web Links](#)

13. [Full-duplex support for Sound Blaster 16](#)
14. [Troubleshooting Audio](#)
15. [Troubleshooting Network Problems](#)

16. [More about FreeTel Communications, Inc.](#)

This documentation and the associated software is Copyright (C) 1996 by FreeTel Communications, Inc.

General Description

Welcome to FreeTel™

FreeTel lets you talk over the Internet for Free. With FreeTel, you can conduct real-time voice conversations with other FreeTel users across the country, or around the world, without incurring long-distance telephone charges.

Since FreeTel is free to non-commercial users, you can give a copy to a friend or family member, so that they can start talking to you right away. Special features include:

- [Full-Duplex operation](#)
- [Electronic Phone Directory](#)
- [Advanced Caller ID](#)
- [Superior Audio Quality](#)
- [Multiple User Configurations](#)
- [Phone Web Links](#)
- [Keyboard Communicator](#)
- [Manual VOX Override](#)
- [Booster](#)
- [File Transfer](#)
- Caller Log

The pages that follow describe how to use this product.

User Registration

Please fill in the User-Registration dialog. All information that you provide will be maintained in the strictest confidence. It will never be sold or released to third parties. You will not receive any junk e-mail. Some of the information may be compiled for statistical purposes, and released as aggregate statistics without identifying any individual information.

When you start a FreeTel session, and are connected to the Internet, this information will be automatically transmitted to FreeTel Communications, Inc.

The following four entries will be automatically displayed in the Electronic Phone Directory and in the Caller ID window of the person you are trying to call:

- First Name (or first initial)
 - Last Name
 - Comment (optional--anything you want, such as Company, Title, special interest, etc.)
 - E-mail address (optional--in case the other party wants to send you e-mail, or you can just put another comment here.)

The remaining entries will not be displayed.

- City (City of residence)
- State (or province)
- Country (Country of residence)
- Zip code (or Postal Code)
 - Gender
 - Age (if you do not wish to disclose, choose "personal")
 - Interests (such as hobbies, sports, activities)

Testing Microphone and Speakers

Before you make your first FreeTel phone call, it is recommended that you test and adjust the Microphone and Speaker settings. Doing so will ensure that both you and the other party have the best possible sound quality. To do this, click on the "TestMic" button.

If your speakers and microphone are adjusted properly, you should be able to speak into the microphone, and then hear, through your speakers, what you had just said two seconds earlier.

On a full-duplex audio card, you should be able to talk continuously and hear what you are saying with a two-second time lag.

On a half-duplex audio card, you will have to alternate between talking and listening every two seconds. The "Talk" indicator will be displayed when you can talk. The "Don't Talk" indicator will be displayed when the system plays back what you have just said. You cannot talk when the "Don't Talk" indicator is lit.

If you do not hear any sound, or if the sound quality is poor, you will need to make adjustments. You may also need to refer to the Troubleshooting - Sound section. Clicking on the Speaker and/or Microphone grids will reveal adjustment sliders.

Possible adjustments you may need to make include:

- 1 Adjusting the Microphone volume level.
- 2 Adjusting the VOX level. This is especially important if either you or any of the people you intend to call will have a half-duplex audio card.
- 3 Adjusting the Speaker volume level.
- 4 Adjusting the Bass or Treble speaker settings.
- 5 Selecting half-duplex or full-duplex.

Adjusting Microphone and Speaker Settings

With FreeTel, you can adjust the Speaker volume, treble, and bass, and the Microphone volume and VOX on most systems.

The speaker level settings are hidden behind the speaker grid. To expose them, click on the speaker grid. The top-most slider is the speaker volume. Moving the slider to the right increases volume. The two sliders below are the treble and bass settings.

The microphone and VOX settings are hidden behind the microphone grid. To expose them, click on the microphone grid. The upper slider is the VOX level while the lower slider is the microphone volume level.

The VOX level adjusts the minimum threshold above which FreeTel begins transmitting the audio signal. If you increase the VOX level (slide it to the right), you may have to talk louder before the VOX triggers. To find the optimal VOX setting, speak into the microphone normally (when using TestMic), and watch the "Talk" indicator. It should turn yellow when you begin speaking, and black again when you finish talking (after about one second of silence). It should not be triggered (turn yellow) by background noise in the room or by the sound coming from your speakers. It should not drop out (turn black) between words in your sentences or when you quiet down near the end of a sentence. Note that on a half-duplex card, it will switch to "Don't Talk" two seconds after you begin speaking--this is normal.

If the "Talk" indicator is always yellow, you need to increase the VOX level by sliding it right a little. If it is always black, you need to decrease the VOX level (or increase the microphone level). If you adjust the Microphone volume, you may need to re-adjust the VOX level.

Note that on some systems, not all of these sliders are present. If your system does not have the Microsoft Mixer API installed (usually installed by the sound driver package that came with your audio card), you will only see the speaker volume and VOX settings. With some audio cards, one or more of the treble, bass, or microphone settings may be missing or may not work.

If not all FreeTel sliders are present or functioning, you can, in most cases, adjust the settings by using the "mixer" application that came with your audio card.

How to Place a Call

There are several methods you can use to place a FreeTel phone call.

If you know the name of the person you are trying to call:

- 1 Type in his first name or last name (or both) into the little window just below the "Dial" button.
- 2 Push the "Dial" button.
- 3 Select from the list of names presented in the dialog. If he is not currently on-line, he will not appear in the list.
- 4 Press "Dial".

If you know the name, but you dont know the exact spelling:

- 1 Type in the first few characters of his first or last name into the little window just below the "Dial" button.
- 2 Push the "Dial" button.
- 3 Select from the list of names presented. If he is not currently on-line, he will not appear in the list.
- 4 Press "Dial".

If you want to see who is currently on-line, or just call random people:

- 1 Leave the little window just below the "Call" button empty (erase its contents if necessary).
- 2 Push the "Dial" button.
- 3 Select from the list of names presented. Press "Next" or "Previous" to scroll through the Electronic Phone Directory.
- 4 Press "Dial".

To accept an incoming call:

- 1 All you need to do is click on the flashing "Accept" button. When you do so, the microphone and speaker grids will turn green, and you will hear an audible connect sound.

To reject or decline an incoming call:

- 1 Click on the "Reject" button.

To hang-up:

- 1 Just click on the "hang-up" button at any time.

How to Talk on FreeTel

Talking on FreeTel is a little different from talking over the phone. The most noticeable difference is the delay that is introduced by the Internet. This delay is typically a half a second to one second in length. It can be longer under certain circumstances (for example, if you are talking to some distant countries who do not have a modern Internet backbone).

When you speak to someone, it is sometimes useful to complete your train of speech with the word "over" so that the other party knows when to start talking. It is permissible to interrupt; however, the other person will receive this interruption one second after the point in his sentence where you decided to interrupt. This can make conversations a little awkward at times.

It can also be useful to use the keyboard in combination with speech. The keyboard can provide some cues without actually causing an interruption.

When speaking, hold the microphone a few inches away from your mouth. The exact distance varies from microphone to microphone and speaker to speaker, so you will have to experiment.

Full-Duplex

When using full-duplex, it is recommended that you keep the microphone as far away as possible from the speaker, in order to minimize feedback. You can also reduce the volume on the speaker. Some people prefer to use half-duplex to avoid this problem. Others prefer to use an integrated headset.

Half-Duplex

Under half-duplex (also known as simplex), only one party can talk at a time, similar to CB radio. Here, it is important to ensure that you have a good VOX setting, to simplify the process of alternating back and forth. If the other party has their VOX set too low and they are continuously transmitting, you can interrupt them using the manual override (below).

Manual Override

FreeTel lets you manually override the voice activation (VOX) mechanism by pressing the CONTROL key ("CTRL") and holding it down. As soon as you do that, you can begin talking. This is very similar to the button on the microphone of a CB or HAM radio. The big difference is that you can interrupt the other party's speech (assuming they are using VOX activation).

If both parties hold down their CONTROL keys at the same time, neither party will hear the other. If you prefer, you can mouse-click on the "Talk / Don't Talk Button", but you must hold down the mouse button.

Booster Feature

During busy times (particularly in evening hours), the Internet or your Internet Service Provider (ISP) can become overloaded, resulting in "dropouts" or "choppy" sound. This can make conversation difficult.

The Booster feature is designed to alleviate this problem, at the cost of increased delay. When you push the "BOOSTER" button on FreeTel, it turns red. This indicates that the Booster is enabled for both parties. The other party's booster button will also turn red.

When you start talking, your speech will be delayed by two to four seconds, resulting in longer conversation turn-around. However, it will have fewer dropouts and less choppy sound.

The Booster feature is not perfect. If the Internet connection has too many lost packets, the Booster feature may actually make the conversation worse. So it is worthwhile to experiment.

To disable the Booster feature, just click on the Booster button again. Note that the Booster button is displayed only when you are connected to the other party. It is by default turned off.

Electronic Phone Directory

Whenever you start FreeTel, it automatically connects to a server which maintains an Electronic Phone Directory of people who are currently on-line, anywhere in the world.

When you place a call, you are presented with a list of one or more people from this Electronic Phone Directory. You may notice that some of the people in this list have an asterisk ("*") beside their name. The presence of an asterisk indicates that they are currently talking to somebody else (i.e., "busy"). If you try calling one of them, you will probably get a busy signal.

The Electronic Phone Directory permits name duplication. For example, if your name is John Doe, and there is another John Doe who is currently on-line, the Electronic Phone Directory will maintain both entries as separate. To eliminate confusion for users, however, it is recommended that you put some other distinguishing mark in the "comments" section of your User Info. That way, users will know, for example, whether they are calling John Doe of New York, or John Doe of Little Rock High School.

Note that in some cases, the directory may supply information that is outdated by 30 seconds to a minute. For example, the directory may list a user as being "not busy", even though he just phoned someone else 30 seconds ago, and is thus now "busy". In such case, if you try calling him, you will get a "busy" signal. Also, if a user inadvertently loses his Internet connection (without having an opportunity to properly exit FreeTel), his name may continue to be listed in the Electronic Phone Directory for up to 3 minutes before it is automatically purged.

You can also access the directory by clicking on DIR while you are talking to another party. In such case, however, the "Dial" button will be greyed out, since you have to hang up before you can place a new call.

Advanced Caller ID

When you place a call, you will be presented with a list of one or more people to choose from.

Before you actually make the call by double-clicking on the entry or by pressing "Dial", you can type in an "introduction" message. This introduction message will be displayed on the other party's screen, just below the "Caller ID" window, as his FreeTel phone is ringing.

The receiving party may use this introduction message to decide whether or not to answer your call.

You can include information such as why you are calling them, what you would like to talk about, a comment that breaks the ice, good news, bad news, etc.

If you wish to preserve this introduction message between FreeTel calls, click on "Preserve".

Main FreeTel Window

The main window presents the primary interface by which to use FreeTel.

In the upper left corner, the user name indicates who the current user is. You can add additional users (for example, if several people in your household use FreeTel) by clicking on the drop-list, and selecting "(add new user)". You can switch between users simply by selecting from the list of available users. The current name is what is displayed in the "Caller ID" window of the person you are trying to call.

The speaker and microphone grids turn green when you establish a connection, and return to their grey state when either party hangs up or the connection is lost. An audible signal is also generated in either case. If you click on the speaker or microphone grid, you can reveal the sliders and indicators which are hidden behind. See [Microphone and Speaker Adjustments](#).

The big rectangular window at the top displays either status information or sponsorship messages. When you make a FreeTel phone call or someone calls you, the window displays the name of the person you are calling or who is calling you. When no new activity is taking place, graphic sponsorship messages are periodically displayed in the window. If you have Netscape Navigator installed on your system, you can mouse-click on some of the messages and be taken to their home page. Note that the sponsorship messages do not interfere with the operation of FreeTel in any way.

The thin rectangular window below the big window displays either an introduction message from the person calling you, a sponsorship message, or an informational message in green text.

Below that are two large black rectangular windows used for keyboard communications. Sometimes, it is more convenient to use the keyboard than to try to communicate something verbally. This is especially true if there are audio problems. The left rectangle is the outgoing keyboard communicator; the right rectangle is the incoming keyboard communicator. Once you establish a connection, you can start typing into the left window at any time. Whatever you type will be displayed on the other party's window. Conversely, what they type will be displayed in your window (on the right).

The input field just below the "Dial" button contains the name of the person you are trying to call. It also maintains a small history of people you have called which you can quickly select from. See [How to Place a Phone Call](#).

When you establish a connection, one or more red dots appears on the upper right of the screen. The number of red dots indicates the level of audio quality in the connection you have established. Generally speaking, anything below three dots is of poor audio quality. The audio quality depends on the CPU and speeds of the computers involved in the connection, the modem speeds, and the audio cards. For example, if one party is using a 486/33 and a 14,400 modem, and the other party is using a Pentium with a 28,800 modem, normally only 3 dots will be displayed. If both parties are using Pentiums and 14,400 modems, normally 5 dots will be displayed. If, additionally, both parties upgrade to 28,800 modems, 6 dots may be displayed, depending on the performance of the computers involved.

Finally, you can minimize this window if desired. When you receive an incoming FreeTel call or incoming text, it will automatically be restored again.

Options

The "Options" dialog lets you configure FreeTel.

By selecting "automatically answer incoming calls", you can configure FreeTel to accept calls without having to press the "Accept" button. They will be answered on the first ring, after which point either party can start talking.

With this version of FreeTel, you cannot "disable advertising". You may purchase an improved version of FreeTel which allows you to disable advertising by visiting our home page <http://www.freetel.com> or by contacting us.

By selecting "use PC built-in speaker for ring indication", you can configure FreeTel to ring its internal speaker.

By selecting "Automatically Reject File Transfer Requests", you can configure FreeTel to automatically cancel all file transfer requests by the other party.

Modem Speeds

These settings are used to identify what modem speed you are using.

If you are using a 14,400 baud modem, select the "14,400 baud modem connection" option.

If you are using a 28,800 baud modem and your Internet Service Provider (ISP) is also using 28,800 modems, you can select the "28,800 baud or better modem connection". This will enable improved sound quality when the other party is also using a 28,800 modem. Note that if you erroneously select this option when you are in fact using a 14,400 modem, you may experience significant dropouts and poor sound quality.

FreeTel will automatically adjust its compression based on the modem speeds of the parties involved. For example, if one party is using a 14,400 modem, and the other a 28,800 modem, FreeTel will automatically use compression appropriate for a 14,400 modem, since that is the slowest link in the link.

Web Browser

If you have Netscape Navigator installed on your hard drive, you can enter its directory here. This will enable you to go to a sponsor's home page by clicking on the advertisement.

Sound Blaster 16 Audio.

If you are using a Sound Blaster 16, Sound Blaster 32, or 100% compatible audio card, you can achieve full-duplex (two-way) operation under either Windows 3.x or Windows 95 by clicking the "Use Sound Blaster Full-Duplex driver" option. FreeTel will automatically detect whether or not you actually have such a card, and will disable this option if you do not.

Under Windows 3.x, this driver will seamlessly coexist with the half-duplex driver that is already installed in your system.

Under Windows 95, however, selecting this option will disable the other sound driver and will thus disable sound for other software packages. You can disable this option at any time to restore your

system or to switch back and forth. See our Web page for additional information.

Audio

If you are using multiple audio cards, you can select which audio card acts as input (talk) and which one is used for output (listen).

Selecting "Use Full-Duplex if available" causes FreeTel to attempt to use the audio card(s) in full duplex mode. In most cases, FreeTel can automatically determine whether or not your card is full-duplex. However, under certain conditions it may fail, and you will have to set it to half-duplex by unselecting this option manually.

File Transfer

FreeTel offers you the ability to transmit a file to the other party during a conversation. The file transmission will not interfere with your conversation and will take place in the background.

Only the sending party can initiate a file transfer. To send a file, click on the "Send" button. A dialog will appear that lets you choose which file to send. When you have chosen the particular file, click on "Send" within the dialog to begin the transfer process.

As soon as you do the above, the other party will see a dialog appear on their screen that let's them choose where they would like to save the file. When they hit "Ok", the file transfer process will begin. Alternatively, they can hit "Cancel" if they do not want the file transfer to occur.

During the course of the file transfer, the "XFER" indicator will appear in red, with moving yellow indicating that the data is actually being transmitted. You will notice that when the sending party begins speaking, the yellow stops moving; and when he stops speaking, the yellow resumes its movement. This is because the data is transmitted during the "gaps" between sentences in a conversation. The more the sending party talks, the longer it will take for the file to transfer. The receiving party can talk without slowing down the transfer process.

Once the file transfer is completed, a message to that effect will be displayed, and the "XFER" indicator will be removed. Either party can stop the transfer process at any time by terminating the connection (i.e., hitting "Hang Up"). The sending party can alternatively stop the process by hitting "Stop" within the Send dialog.

Security

FreeTel does not permit a file to be transferred without the other party's knowledge and consent. You cannot receive a file without the other party explicitly sending it to you and your clicking on the "OK" button in the "Save As" dialog. You cannot send a file without the other party agreeing to receive it. There is no mechanism within FreeTel for the other party to gain access to your hard drive.

When somebody sends you an executable file (e.g., EXE, DLL, or DRV extension), and you are unsure of its source, it is good practice to scan it for viruses using one of the commercially available virus scanning packages, after you receive the file, but before you execute it.

Also, you can click on the "Automatically Reject File Transfer Requests" check box in the Options dialog. This will cause all attempts by the other party to send a file, to be automatically rejected, without causing any dialogs to appear on your screen.

Phone Web Links

If you have a Web page, you can add FreeTel Phone Web Links that enable people who have both Netscape and FreeTel running to place a FreeTel phone call by simply clicking on your Web Link!

The link is of the form:

```
<a href="FreeTel:John Doe">Call John Doe</a>
```

When the user clicks on "Call John Doe", his copy of FreeTel will place a call to "John Doe" automatically. Note that his copy of FreeTel must be running for this to work.

For additional information and further developments in this area, check out our Web page <http://www.freetel.com>

Full-Duplex Sound Blaster Support

FreeTel provides full-duplex support for the Sound Blaster 16, Sound Blaster AWE32, and 100% compatible sound boards. It contains a special internal driver to accomplish this.

The behavior of this internal driver is different under Windows 3.x versus Windows 95.

Under Windows 3.x, the internal full-duplex driver seamlessly integrates with the regular audio wave support. You can switch back and forth between FreeTel and other audio software at will.

Under Windows 95, however, the internal full-duplex driver disables the standard Wave audio support, and thus disables all sound under Windows 95 (other than FreeTel). Hence, under Windows 95, you have 2 alternatives to choose from:

- 1 You may use the built-in full-duplex driver, with all other audio support disabled, or
- 2 You may use the regular (half-duplex) wave driver, and keep all other audio support active.

You have the option of switching back and forth between these two options as needed simply by clicking on the "Use Sound Blaster 16 fullduplex driver" switch in the Options dialog. Windows will be automatically restarted each time you switch.

We realize that neither of these two alternatives is ideal, and we are working toward solving this problem. You may wish to periodically look at our Web site to see if an improved version is available yet.

Troubleshooting Audio

Here are some possible problems and their solutions. It is recommended that you use [TestMic](#) to test and adjust the sound before you initiate any calls.

A. Sound quality is poor using TestMic

- 1 Try adjusting the [Treble or Bass](#) settings.
- 2 Try adjusting the knobs on your speakers. Some speakers exhibit excessive bass by design.
- 3 Make sure the cables attached to the sound card are secure.

B. No sound whatsoever is heard when using TestMic

- 1 Make sure the microphone is turned on (via the physical switch located on most microphones).
- 2 Make sure the microphone and speakers are plugged in securely.
- 3 Some speakers require battery power before they will operate properly. If that is the case, make sure the speakers have batteries and are turned on.
- 4 Try turning off the full-duplex setting in the [Options](#) dialog.
- 5 Make sure the Microphone and Speaker volume settings are adequate.
- 6 From the "mixer" application that came with the audio card, make sure that the "microphone" is turned on. However, some audio cards permit you to directly connect the microphone to the speakers, so that you can get a PA effect. That settings should be disabled, however.

C. Sound Frequently drops out when somebody is talking.

- 1 Make sure the other party has their VOX set properly. It may be too high. You can use the keyboard to communicate this fact to them.
- 2 Make sure your modem settings are correct.
- 3 Try calling at a different time of day. If the problem goes away, it may be that your Internet Service Provider is overloaded.
- 4 Try using the "Booster" feature.

D. The "Dont Talk" indicator is continuously displayed.

- 1 The other party may have their VOX set too low.
- 2 Try holding down the "Ctrl" key when you talk. This will override the other party's VOX setting.

E. You can't hear the other party.

- 1 The other party has not adjusted their microphone and speaker settings with TestMic.
- 2 They have their VOX setting too high or their Microphone volume setting too low.
- 3 They do not have a sound card. In this case, the "NO SOUND" indicator should be displayed.

Troubleshooting Network Problems

Troubleshooting network problems can be difficult. If you can't identify the problem, you should consult the manual that came with your networking or dialer software, or check with your Internet Service Provider. If FreeTel cannot connect via the Internet to a server within 30 seconds, it will display a message to that effect. Here are some suggestions:

- 1 Make sure that you are connected directly to the Internet, and are not going through a firewall. Most Internet Service Providers give you a direct connection. Most corporate LANs, however, are connected through a firewall. FreeTel cannot work through a firewall unless your system administrator makes some changes. See our Web page <http://www.freetel.com> for details.
- 2 Make sure the serial connection between your computer and modem is set to 19,200bps for a 14,400 modem, and 38,400bps for a 28,800 modem.
- 3 Make sure the network connection to the ISP is working (try using Netscape or Ping to test this.) Sometimes, ISPs temporarily lose their connectivity.
- 4 Try re-dialing. Sometimes a bad phone connection or faulty modem with the ISP causes problems.
- 5 Try re-booting the computer. Sometimes faulty WINSOCK software gets into a bad state.
- 6 If you have more than one WINSOCK.DLL, make sure the correct one is being loaded.
- 7 Make sure your dialer is properly connected, including IP address (if it is not automatically assigned) and MTU (552 or larger).

More about the Company

FreeTel Communications, Inc. is committed to providing you with the best quality product and service. We believe that the Internet is revolutionizing the way people can interact with one another. You may wish to periodically visit our Web site to download new versions of FreeTel, or to see what new products become available:

<http://www.freetel.com>

For technical support, you should visit our Web Site, above. To report bugs, please send email to ftbugs@freetelco.com. Please use the included problem report form: PROBLEM.TXT

If you would like to contact FreeTel regarding our sponsorship plans or corporate products, you may contact us at:

Mail: FreeTel Communications, Inc.
540 N. Santa Cruz Avenue, Suite 290
Los Gatos, CA 95030

Fax: (408) 358-6385

E-mail: freetel@freetelco.com

