# Computer Interface Quick Start Guide

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# Introduction

Dear Model Railroading Friends,

Welcome to the new world of computer configurable railroad sound systems. Now you can extensively customize your system with a little help from your PC. Previously, changes of this nature involved jumper wires or changing memory chips. Some of your requests even involved custom sound chips. Now most of the things you asked for you can do yourself, and hear the results of changes as they are made.

It has been a long journey (longer than we ever imagined) to get this far, and yet the rails still stretch far over the horizon. Thanks for climbing on board. We are driven by your comments and feedback. We love the praise (of course), but it's your suggestions and criticism that move us forward and drives our improvement.

This CD version contains sound file versions R9 or later. We have added more features and some new sounds.

Also included on this CD are PDF documents that include the latest versions of our sound board manuals.

Happy Listening.

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# Quick Start

The following steps will get you started if you're familiar with both computers and trains. If you are upgrading from a prior version of Phoenix Sound please go to the Software Upgrade section. If you are using a USB Serial Adapter see page 9

1. Insert the Phoenix CD in your drive. The installation program should begin automatically. If it does not, run the program *phoenix_setup.exe* located on the CD. You may to choose to install the drivers for the Phoenix USB interface automatically at this time if you so wish.

2. For the Phoenix USB Interface, connect the USB cable to you computer and the Phoenix USB Interface box. If this is the first time connecting the PC to the hardware please wait a moment while the PC configures the news hardware with the drivers you chose to install. You may see tray balloons informing you that new hardware (FT232UART USB Serial Converter) has been found and is being configured, followed by another new hardware notice (USB Serial Port). Once these initial configurations have been automatically finished proceed by plugging the 2.5mm mini connector into the access jack of the sound board. Make sure you have fully inserted the mini-connector into the access jack; you will feel two slight clicks upon insertion and none of the silver post should be visible on the mini-connector.

3.  Run the Phoenix Sound.exe program that was installed in the "Phoenix Sound" folder. You may start the program through shortcuts on the desktop or the start menu (if you chose those options during the installation). The bottom line of the screen that comes up should indicate that no sound board is connected.

4.  Power up your sound system by applying at least 7V (12V for P5 or P8) to the main power inputs of the board. These are terminals 1 & 2 on a BigSound™ 2K2, PB9 or PB11 or the green wires of connector C1 on a BigSound™ P5 or P8.

5.  The Phoenix Sound program will connect to the sound system, read information about the file loaded in the sound board and fill in the screen with icons (small pictures).

6.  Click away. A lot of the choices will be obvious. The menus control general functions like loading and saving sound files. The icons are for editing the sounds that are loaded in the board. If you get stuck, you might want to read the rest of the manual or contact us.

7.  Before you load a new sound into your board or begin experimenting, you may want to save your current configuration

8.  Happy Railroading!!!

# Exploring Menus (Basic)

### File

**Load** - copies a complete sound file (*<filename>.rom*) to the sound board.

**Save** - saves the sound file that's in your sound board to a file on your PC.

A COMPLETE LOAD OR SAVE TAKES SEVERAL MINUTES.

### Port

Sets the COM port used by the Phoenix software, either a serial port or a Virtual COM port in the case of our USB interface or a USB to Serial adapter. Use this menu to select other available ports on your computer.

### Level

We have sorted the program functions into 3 groups so that you can match the choices displayed with the level of what you are doing. The *basic* level includes volume adjustments only; *intermediate* adds trigger assignments and *advanced* gives access to all the user configurable parameters.

### Info

**About...** gives the version of *Phoenix Sound.exe* that is running

**Board Info...** tells you the serial number and the version of the sound file that is loaded into the board you are connected to.

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# Exploring Icons

Most of the Icons (small pictures) connect you with a sound that you can alter - change the volume, turn on/off, set when the sound plays etc.

Three Icons control the overall setup of the sound system.

### The "Board" Icon

Sets the volume, the starting voltage and other general parameters.

### The "Terminals" Icon

Connects sounds or effects with the terminal (trigger) inputs: 9 to 5 on the 2K2; 7 to10 on the PB9; 7 to 11 on the PB11; Triggers 1 & 2 on the P5; Triggers 1 to 5 on the P8; any P5T expansion triggers.

### The "DCC" Icon

Assigns sounds and effects to DCC functions and sets up the DCC control variables like the address and the throttle setting where the train starts to move.

# Systems Details

### Software Version

This is helpful information if you need to contact Phoenix Sound. The version of CD package is printed on your installation CD and you can get the application version from the **Info –> About** menu.

The version of firmware that is loaded into your sound board is displayed (when connected to the sound board) in the **Info –> Board** Info menu.

### Files created by installation

All the files used by *Phoenix Sound.exe* are contained in two Phoenix Sound folders, one in "Program Files" and the other in your default "Documents" folder. If any system libraries (.dll) are missing they will also be installed.

### System Requirements

The *Phoenix Sound.exe* program has modest requirements. It runs on any PC with Microsoft Windows 95 or later and uses about 8 MB of RAM. You should have a minimum of 20 MB RAM for Windows 95. The sound libraries are large, 3 MB of disk space each.  There are over 70 available sounds. This totals up to over 210 MB if you install the entire sound library.

If you select the minimum installation (no ROM files or help files), you can download individual sound files from our website or re-run the installation program and install the ROM files and or help files.

# Software Upgrades

If you have an existing version of the Computer Interface software installed we recommend uninstalling the existing version and then do a normal installation as outlined in Quick Start. Please be sure to copy any custom files you may have created to a secure location before performing the uninstallation.

### Compatibility with older versions

New software works in all previous versions of our 2K2, PB9, PB11, P5 and P8 sound boards. It is not recommended to load older software in new boards. If you have settings that you like from prior adjustments save them in a config file. Some settings from earlier versions (prior to -R1) will not translate directly due to changes in file allocations to add new features and support for the newer BigSound™ systems.

# Helpful Tips

### Saving Configurations

As you make adjustments to your sound board, the new values overwrite the old values in real time, there is no undo. If you have a configuration that you like and might want to go back to it you should save it. To save your current configuration, choose **Save** from the **File** menu, select **Configuration Only**, name your file, push the Open button.

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## USB  Serial Port Adapters

For those of you who may have purchased the Serial version of the Interface, which preceded our release of a USB interface, if you do not have an available serial port you can use a USB to serial adapter. USB to serial adapters are available from several manufacturers. We have tested the several adapters ourselves and find they perform well. We have found that the Belkin F5U109, F5U409 and F5U409V1 do not work, while the Belkin F5U103 works fine. The Targus PA090 USB Port replicator has been reported to be problematic as well. We have a further list of USB to serial adapter compatibility on our website's knowledgebase, http://kb.phoenixsound.com

> PLEASE MAKE SURE TO INSTALL THE ADAPTER AND DRIVERS BEFORE INSTALLING THE PHOENIX SOFTWARE. PLEASE BE SURE THAT YOU USE A USB TO RS-232 SERIAL ADPATER, NOT A USB SERIAL PDA ADAPTER. MAKE SURE THE ADAPTER IS CONNECTED WHEN INSTALLING OUR SOFTWARE.

## Powering the sound system

In order to communicate, the sound board must be powered. This sometimes presents a problem for straight DC users, as the train may want to move when the sound board is on. A motor cut off switch is useful for lengthy sessions. For short sessions you can keep the 2K2, PB9 or PB11 boards alive with a small track voltage and run off the battery. This will work for approximately 15 minutes with a fully charged battery. If you installed in a tender or boxcar, you can simply set it on the track.

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### Communications Errors

Check these common causes first:

- Check that your cables are connected.

- The power supply may be inadequate (starter set power supplies generally are) - your power supply should provide at the minimum 30V/A.

- Your PC's FIFO buffers may need to be increased - to do this in Windows right-click on *My Computer* and select *Properties*, then select *Device Manager*.  Highlight your COM port in the list and click *Properties*.  Click the *Port Settings* tab then the *Advanced* button.  Use FIFO Buffers should be checked and both sliders should be all the way to the right (maximum).

- Latency Timer may need to be adjusted (Phoenix USB interface). To do this right-click on *My Computer*, select *Properties*, then select *Device Manager* then *Ports*. Highlight your USB Serial COM port in the list and click *Properties*. Click the *Port Settings* tab then the *Advanced* button. Adjust the *Latency Timer* downwards, 4 is a value.

### Serial Cable Length

We do not recommend using extensions on the 2.5mm Mini Plug end of the Serial Interface Cable. You can add RS232 (serial)  or USB cable extensions between the computer and the Interface cable. Extensions should be no more than 25 feet.

# Remote Control Configuration Tips

## Locolinc®

When connecting to a Locolinc® system, the trigger inputs need to be switched from active low to active high. This is done through the check boxes accessed by the terminals icon. You will only need to change the input settings for the triggers you connect to the Locolinc® unit, typically the whistle and bell are chosen. We also suggest that you run the system in real time mode rather than programmed responses for the whistle and bell with Locolinc®.

## LGB MTS

LGB's Multi-Train System and the BigSound™ work well together, however for button assignments that are consistent with LGB's, a few of the functions should be reassigned. Please make sure that you remove a feature from a function before adding one to it. Our recommended MTS function assignments for steam are:

| | |
|---|---|
| F1  Whistle | F5  Coupler Clank |
| F2  Brake | F6  Water Fill |
| F3  Bell | F7  Coal Load |
| F4  Coal Shoveling | F8  Shutdown |

# Manual Configuration Tips

The latest version of the Phoenix software allows the programmed and the manual whistle to be available simultaneously on different triggers. To configure the system for complete manual operation do the following:

First, turn off the programmed horn/whistle and turn on the manual horn/whistle. To do this click on the horn/whistle icon and find the crossing whistle/horn trigger. Change this from "auto and terminal *X*" to "Off". Go to the manual whistle/horn trigger and change this from "Off" to "terminal *X*".

IF YOU ALSO WANT TO ELIMINATE THE AUTOMATIC FORWARD, REVERSE AND STOP SIGNALS, SET THEIR RESPECTIVE VOLUMES TO ONE.

Next, modify the Bell settings. The "Bell Trigger Mode" should be set from programmed to manual. The "Bell Trigger" should be set from "auto and terminal *X*" to "terminal *X*". If you wish, you may also set the starting and stopping bell volumes to zero as well.

If you wish, the coal loading and water filling effects on steam engines may also be set for manual rather than programmed operation. Simply click on the appropriate icon and perform the same adjustments as with the whistle and bell.

Now your BigSound™ system is completely under your control.

PLEASE NOTE THAT IN THE ABOVE EXAMPLE X IS THE DEFAULT TERMINAL THAT VARIES BY BOARD TYPE – CHECK THE RESPECTIVE BOARD MANUAL FOR THE DEFAULT VALUE.

# Warranty

The Computer Interface software and USB Interface are conservatively designed and manufactured; each interface unit is tested prior to shipping. We are dedicated to producing the world's finest sound systems and components that last for years of railroading enjoyment.

The materials and operation of the Computer Interface are guaranteed to perform correctly for one year, when properly installed. In the unlikely event that your system fails, please call or e-mail us so that we may evaluate the situation and save any unnecessary shipping; frequently there is a simple explanation for any perceived problem you may be experiencing. Repairs and or replacements covered by this warranty are at no cost. However return shipping may be charged. A service fee may be assessed if it is determined that the failure was not due to any Phoenix supplied components.

Phoenix Sound Systems, Inc. cannot be liable for damage to the system during shipping to our facilities due to mishandling, inadequate packaging or similar circumstances beyond our control.

Please read the handbook prior to installation and operation of your Computer Interface system. Contact us if you have questions or are unsure about any aspect of installation or operation.

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