# quick-start guide

# Link.USB

## 24-BIT USB AUDIO INTERFACE

# TAPCO®

## TOTAL AUDIO PRODUCTION

# IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Only use attachments/accessories specified by the manufacturer.
10. Unplug this apparatus during lightning storms or when unused for long periods of time.
11. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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**FCC Information**

**NOTE:** *This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.*

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**Product Serial #:**

**Purchased at:**

**Date of purchase:**

Part No. SW0235  Rev. B1  11/05
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**Please write your Tracktion 2.0 License Number here (packaged with the Link.USB CD):**

_____ - _____ - _____ - _____ - _____

**Enter your my.mackie.com Login information here:**

**Login email address _____**

**Password _____**

**Don't forget to visit our website at www.tapcogear.com for more information about this and other TAPCO products.**

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# CONTENTS

# INTRODUCTION

Thank you for purchasing the TAPCO Link.USB Audio Interface for digital recording systems. This is a complete, compact solution for computer-based music production on either a Macintosh or a PC.

The Link.USB is a 2x2 USB interface that is powered directly off the USB connection, and also includes Tracktion 2, our powerful audio and MIDI sequencing software for digital recording. This hardware and software combination provides all you need to record and create wonderful music using your laptop or desktop computer.

## The Link.USB Interface

The Link.USB interface provides two analog audio inputs that can accept microphone level, line level, or direct instrument input signals. The analog audio signals are routed to high-quality ADCs (Analog-to-Digital Converters) operating at 44.1, 48, 88.2, or 96 kHz with 24-bits. The digital signal is then routed to the USB port for connection to your computer.

The analog inputs are "combo" jacks that accept either a balanced XLR connector or a balanced or unbalanced 1/4" TRS or TS connector.

When a microphone is plugged into an XLR input, that channel automatically adjusts to become a mic input. When a 1/4" TRS or TS connector is plugged in, that channel adjusts to become a line-level input (or an instrument-level input if the INSTRUMENT button is pressed in).

Master mixes can also be transferred from your host computer back to the Link.USB for monitoring during tracking or overdubbing. A front panel MIX knob is provided to add low-latency direct monitoring (from the analog inputs) to playback monitoring (from the USB input). Monitoring is provided by the headphone jack on the front, and by balanced outputs on the back, each with their own level controls.

## Bundled Software

The Link.USB comes with some incredibly powerful software to get you started with your own desktop multitrack audio recording music production studio.

**Tracktion 2** is an easy-to-use multitrack audio recording and MIDI sequencing software application, capable of unlimited track count, VST support, automation, and much more. It comes with a plethora of plug-ins to give you a wide variety of EQ, compressor, and effects processors to use in creating exactly the sound you want.

# GETTING STARTED

Use this section to get your Link.USB set up quickly. Refer to the Link. USB Owner's Manual (PDF file) for more detailed information about the operation of the Link.USB.

## Installing the Software

- The Link.USB CD contains an installer that will install the Tracktion 2 software application, plug-ins, and drivers.

- Visit http://my.tapcogear.com to register your Link.USB.
  If you haven't already done so, set up an account by entering your email address and clicking, "No, I want to create an account." Then click "Continue."
  Enter the information to set up your profile. Then click "Create My Account."
  Then proceed to register your Link.USB by clicking "TAPCO Product Registration."

- Your computer **must** meet the following minimum system requirements:

  ### *PC Requirements*
  - Windows XP (SP2)
  - Pentium III or better processor
  - 256 MB RAM (512 MB recommended)
  - 30 MB hard disk space

  ### *Macintosh Requirements*
  - OS X (10.3 or later)
  - Power Mac G3 (600 MHz or faster), G4, or G5 processor
  - 256 MB RAM (512 MB recommended)
  - 35 MB hard disk space

**To install the software on a PC running Windows XP (SP2):**

1. Turn off any (non-essential) applications.
2. Insert the Link.USB CD-ROM into your PC's CD-ROM drive.
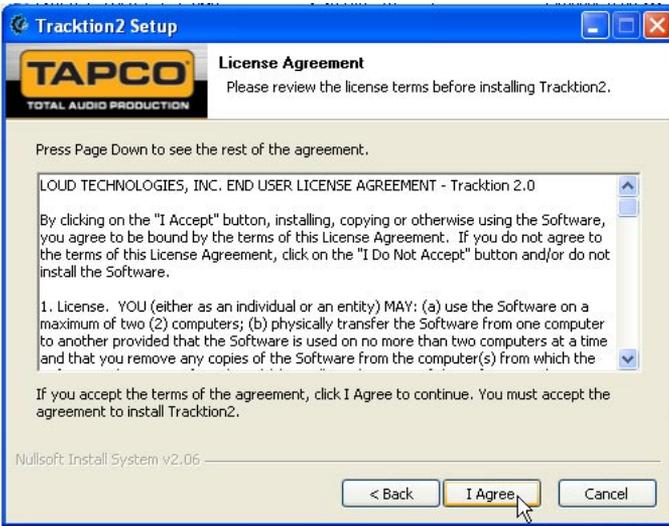3. The CD should begin automatically, bringing up the Link.USB installer.



If not, click Start in the task bar, then click Run and click Browse. Browse to your CD drive and double-click SETUP.EXE. Then click OK to start the installation.
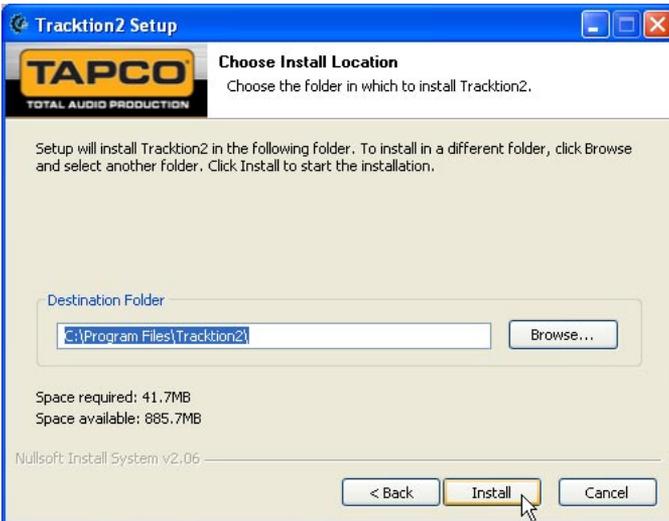
4. The Tracktion 2 Setup Wizard opens. Click "Next."

5. Next you will see the Tracktion License Agreement. Read through the text and click "I Agree."



6. The next window lets you choose the Destination folder for installing the software files. We recommend you use the default location used by the installer, but you can choose a different location if you want by clicking the Browse button. Then click "Install."

7. When the installer has completed copying the files into the destination folder, the All Installed dialog box opens. Click OK to continue.



8. A window opens asking if you want to install QuickTime. Click "Yes" if you want to install it, or "No" to continue.
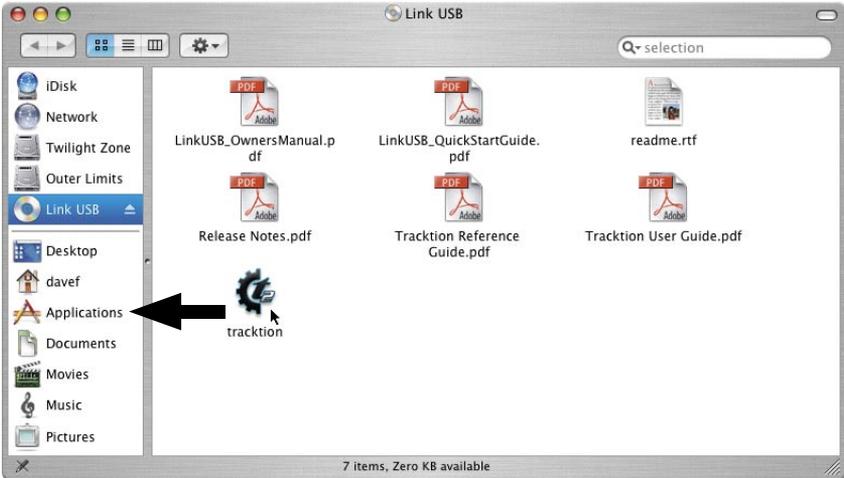


9. The Tracktion 2 Setup window opens to inform you that everything is installed. Click OK to finish the installation.

**To install the software on a Macintosh running OS X (version 10.3 or later):**

1.  Turn off any (non-essential) applications.
2.  Insert the Link.USB CD-ROM into the CD-ROM drive.
3.  Double-click the Link USB CD icon on the desktop.



4.  To install Tracktion 2, simply drag the Tracktion application file into your Applications directory.
5.  Go ahead and drag the documentation PDFs to your Applications directory (or anywhere you want to keep them on your hard drive). These include:

    LinkUSB_Owner's Manual.pdf
    LinkUSB_QuickStartGuide.pdf
    Release Notes.pdf
    Tracktion User Guide.pdf
    Tracktion Reference Guide.pdf

6.  Double-click the Tracktion file in the Applications folder to open Tracktion 2.

## Authorizing Tracktion 2

There is an authorization code on the sleeve of the CD-ROM that came with your Link.USB. You can authorize the software from within Tracktion or by going to http://my.tapcogear.com.
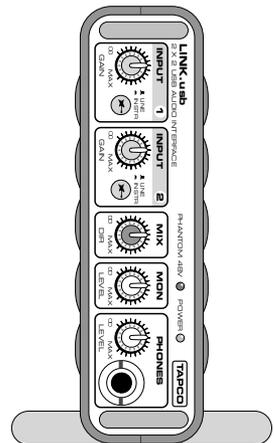
### *From Tracktion 2:*
1. Open Tracktion 2.
2. Tracktion detects that the software is unregistered and notifies you that it is running in Demo Mode. You can choose to continue or click the "Unlock" button to authorize the software.
3. Follow the instructions for unlocking Tracktion.

### *From my.tapcogear.com:*
1. Go to http://my.tapcogear.com.
2. If you haven't already done so, set up an account by entering your email address and clicking, "No, I want to create an account." Then click "Continue."
3. Enter the information to set up your profile. Then click "Create My Account."
4. Then proceed to register Tracktion by clicking "Mackie Product Registration."
5. Select "Software" and "Tracktion v2 Music Production Software."
6. Click "Click here to register Tracktion v2 online."
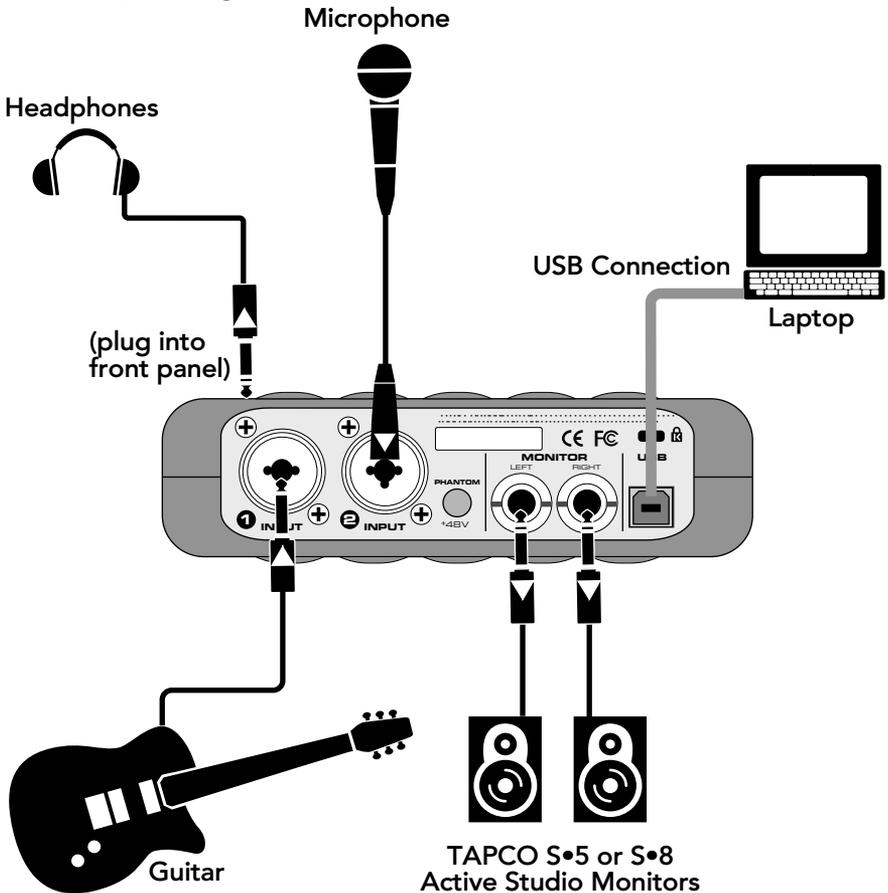7. Enter the authorization code from the sleeve on your CD-ROM in the License Number box. Then click "Authorize."

# Connecting the Link.USB

- To stand the Link.USB upright, pull the stabilizer bar downward and twist it out 90° from the body, as shown here.
- Turn down all the Link.USB knobs to prevent any loud surprises.
- Connect microphones using the XLR/TRS combo input connectors on the back of the Link.USB. Press the 48V button if your microphone needs phantom power (mostly used for condenser mics).

- Connect guitars or other instruments using the XLR/TRS connectors on the back of the Link.USB. Press the front panel LINE/INSTR button (guitar icon) if you are connecting your guitar or instrument directly to the Link.USB without using a preamplifier or direct box.
- Connect a pair of powered monitor speakers, or an amplifier connected to speakers, to the Link.USB MONITOR jacks on the rear panel. You can also plug in headphones to the front panel PHONES jack.
- Connect the USB connector to a USB port on your computer with the USB cable provided.
- Launch Tracktion 2 or the DAW software application of your choice and select Link.USB as the audio device for the audio inputs and outputs.

## Hookup Diagram



Microphone

Headphones

USB Connection

Laptop

(plug into front panel)

PHANTOM
+48V
MONITOR
LEFT   RIGHT
USB
1 INPUT   2 INPUT

Guitar

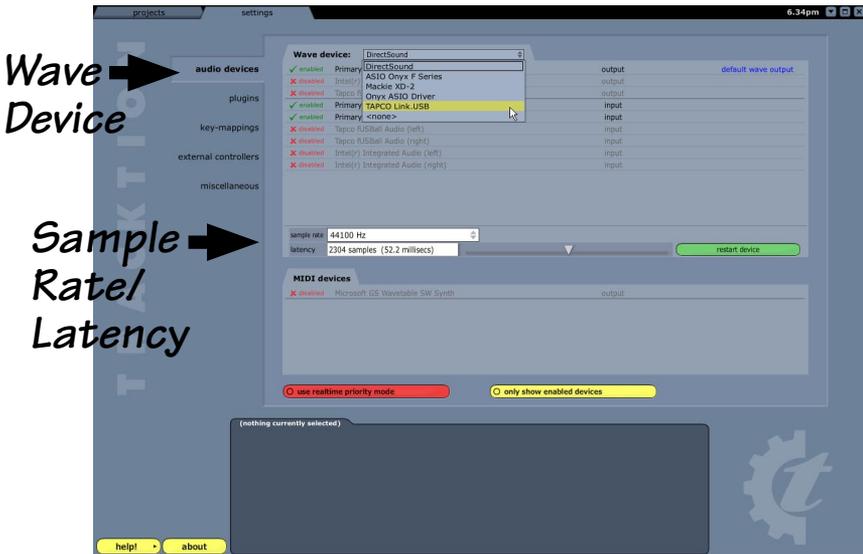TAPCO S•5 or S•8
Active Studio Monitors

# Making a Recording

The following example of a recording session uses a guitar plugged directly into the Link.USB channel 1 input, and a microphone plugged into the channel 2 input, to record audio tracks in the Tracktion 2 software.

Before starting, make sure you have correctly installed the Tracktion 2 software.

1. Connect your equipment using the diagram on the previous page as a guide.

2. On the Link.USB front panel, set the INPUT GAIN, MON, and PHONES knobs to minimum, and the MIX knob to maximum. Press the 48V button on the rear panel if your microphone needs phantom power. Press the LINE/INSTR button on Channel 1 if you are not using a guitar preamp or direct box.

3. On your computer, open Tracktion 2. Make sure you have the Link. USB selected as the audio input/output device (under the Settings tab > Audio Devices > Wave Device).
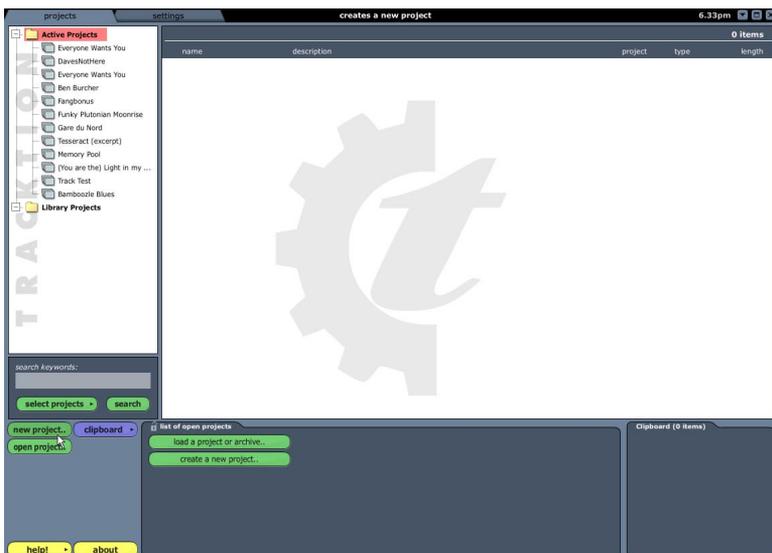


You can select the sample rate and the latency in the Settings tab. For more details about Tracktion 2, press the Help! button in the lower left-hand corner.
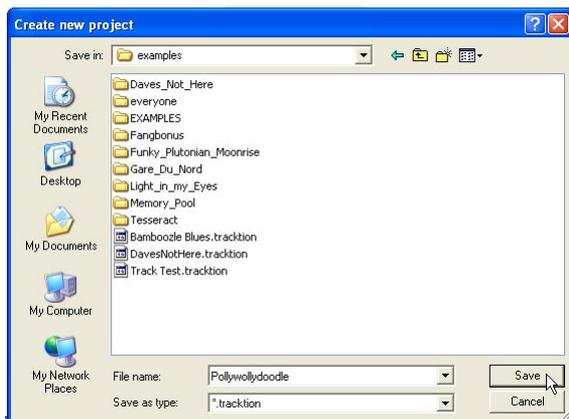
**LOOK CLOSER** Latency describes the amount of time it takes for audio to get in and out of your software application. The lower the latency setting, the faster audio can get into and out of the software application. However, a low latency setting requires more resources from your computer, so you need to find a happy balance between finding the lowest latency setting you can attain before the computer begins to have trouble routing and recording audio (e.g., dropouts, pops, distorted audio). See "What is Latency" on page 31 of the Link.USB Owner's Manual (PDF) for more info.

4.  Click the New Project button under the Projects tab.



Enter a name for your new project and click "Save."

5. "New edit #1" appears at the top of the item list. An edit is Tracktion's way of keeping a version of your song. You can rename the song by clicking on the edit and entering the new name in the properties panel at the bottom of the screen.

6. Double-click on "new edit #1" to open up the Edit screen. A new project starts with eight horizontal tracks, stacked vertically. You can add or remove tracks once you get going. Tracks can also be renamed by selecting them and typing the new name in the Properties panel.



7. The two audio icons represent the Link.USB's two inputs. If these two icons do not appear, make sure Link.USB is selected as the audio devices under the "Settings" tab.

8. Click on the Input 1 icon, and drag it to track 1. As it gets close, an arrow pops out and connects the icon to the track. This indicates that the track is armed for recording. To disconnect an icon (and disarm the track), drag it to the left and the arrow will disappear.



M=Mute
S=Solo
Channel Meter
Pan and volume
Play
Record
RTZ

9. Play the guitar and slowly turn up the front panel INPUT 1 GAIN knob about halfway. You should see the input meters in Tracktion indicating that a signal is present. Make sure the overload indicator doesn't light. If it does, turn down the GAIN knob until the musical peaks no longer light the overload indicator. If the meter is barely indicating a signal, turn up the GAIN knob.

10. We will begin by recording the guitar. Click on the Input 1 icon to highlight it. The input meters (in the Properties panel) will show the signal level being recorded.

11. With the MIX knob turned fully clockwise to MAX, put on the headphones and slowly turn up the PHONES knob to a comfortable listening level while playing the guitar. Now you can monitor what you are playing.

12. To record, click the Record button in the Transport area (or press the "R" key on the keyboard). Tracktion records any armed tracks. Play your guitar as the vertical cursor line moves to the right.

13. To stop recording, click the Record button again (or the "R" key). A squiggly line (amplitude vs. time waveform) of your recording is displayed.

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14. To play back your guitar recording, click the RTZ (Return to Zero) button in the Transport area and click the Play button. If you are happy with the recording, drag the Input 1 icon to the left to disarm the track.

15. To record some vocals, drag the Input 2 icon to track 2. This arms the track for recording the microphone connected to Input 2 on the Link.USB. Adjust the Input 2 GAIN knob so your vocals do not light the overload indicator in Tracktion. Use the MIX knob to adjust the balance in your headphones and monitors between the guitar recording and the direct input from the microphone.

16. Click the Record button to record your vocals while listening to the guitar track.

17. You can record more instruments on more tracks and build a multitrack masterpiece by continuing in a similar fashion. As you record and play other tracks, you can mute any tracks you don't want to hear by clicking the "M" button at the far right side of the track.

18. Tracktion has a number of plug-ins that you can use to enhance each track. Refer to the Tracktion User's Guide or Reference Guide for more information on using plug-ins and creating a stereo mix for burning to CD or creating an MP3 file.

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