TRIPATH

T1O

U s e r   G u i d e

Home Stereo Inside Your PC

- Brings Audiophile Sound to PC Entertainment

- Ample Power to Drive Stereo Speakers of Your Choice

- Easy to Install - No External Power Supply or Software Required

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Notes on Using TIO

Welcome!

TIO is a complete two-channel Class-T (Tripath^{TM}) Digital Audio Power Amplifier Card that is ready to install in any PC with an open slot. This card has a TA1101B Digital Power Amplifier on-board that uses Tripath's proprietary Digital Power Processing^{TM} technology. TIO delivers audiophile sound in a 3" X 3 3/4" PC card and comes with all necessary cables.

Before you begin installing TIO, please check that you have everything you need:

1. A Personal Computer with a functioning sound card.
2. Passive, stereo loudspeakers. **TIO is NOT for use with powered PC speakers**. TIO will not improve the sound of PC speakers, because they already have an amplifier inside. TIO is a high performance audio amplifier card that is powered by your PC. TIO allows you to hook up high-quality speakers to your PC. TIO turns your PC into a stereo system. We recommend you use high-quality bookshelf loudspeakers for maximum audio enjoyment.
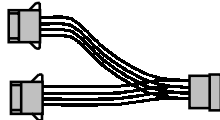
Installing TIO requires opening your PC. If you are uncomfortable doing this, ask your local PC shop. Installing TIO takes about ten minutes.
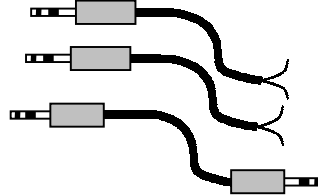
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Installing TIO

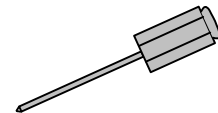**All items needed for installation are included (except a screwdriver)**
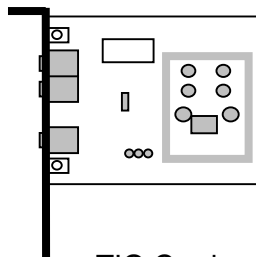
| TIO Card (Included) | Y-Power Cable (Included) | 3.5mm Cables (Included) | Screwdriver (Not included) |

Making the Internal Connections (See Diagram A)

Step 1. Check to see that your sound card is working properly by playing music from any source. Set the volume to a low level before shutting down the PC. Shut down your operating system in the correct manner.

Step 2. **Turn off the PC and disconnect the power cable.** Disconnect the monitor and other devices connected to the PC.

Step 3. Remove the PC cover and locate an open slot on the rear of the chassis. Pick a location near the sound card if possible.

Step 4. Remove the slot cover from the slot and save the screw. Mount the TIO to the chassis backplane. At the bottom of the chassis backplane there should be a slot that accepts the bottom of the bracket. This slot keeps TIO from moving when you attach the TIO cables. Screw the TIO bracket firmly to the PC chassis backplane.
IMPORTANT: make sure the TIO card does not touch any other cards.

Step 5. Connect TIO to the PC power supply using the Y-cable (included).
If your power supply has a free connector, you can connect TIO directly to one of these, and the Y-cable is not needed.
If there are no free connectors unplug the power supply cable from either your CD-ROM or your hard drive and plug it into the Y-cable. You will now have two connectors free – replace the one you unplugged and connect the other one to TIO.

Step 6. Re-install the PC cover and reconnect the monitor and other devices which you disconnected earlier. Reconnect the power cable to your PC.

Step 7. Place speakers as far apart as possible for best stereo separation and to minimize magnetic interference with your PC monitor (speakers may not be magnetically shielded).

Making the External Connections (See Diagram B)

Connecting the Speakers

Connect your speakers via the 3.5mm cables with tinned leads (included). Make sure you connect the red wire to the red terminal on each speaker, and the other wire to the black terminal. If you get one pair reversed, your speakers will be out of phase and will result in poor bass response.

Now that the cables are connected to your speakers, plug them into the TIO output jacks marked **"Left"** and **"Right".**
Do not use powered PC speakers with TIO. Use only home stereo un-powered (passive) speakers with TIO.

Connecting the Soundcard

TIO works with any standard sound card. TIO will improve the power capability and audio quality of your multi-media system whether your sound card is a low cost version or a high-end multi-feature card. Use the 3.5mm-3.5mm cable (included) to connect the "**Line Out**" from your soundcard to the input jack marked "**Input"** on the TIO. ("Speaker Out" from the soundcard can be used but "Line Out" is preferred for best performance.)

Checking Your Work

Power up your PC and start Windows. Play some music using internet radio or a CD and adjust the volume as needed. If the CD doesn't play automatically, go to the start menu and click on RUN. Type "cdplayer" and hit enter. Make sure the volume level for the CD output is adjusted correctly.

POWER CONNECTOR

Left

Right

Input

LEFT SPEAKER OUTPUT

RIGHT SPEAKER OUTPUT

INPUT (from sound card)

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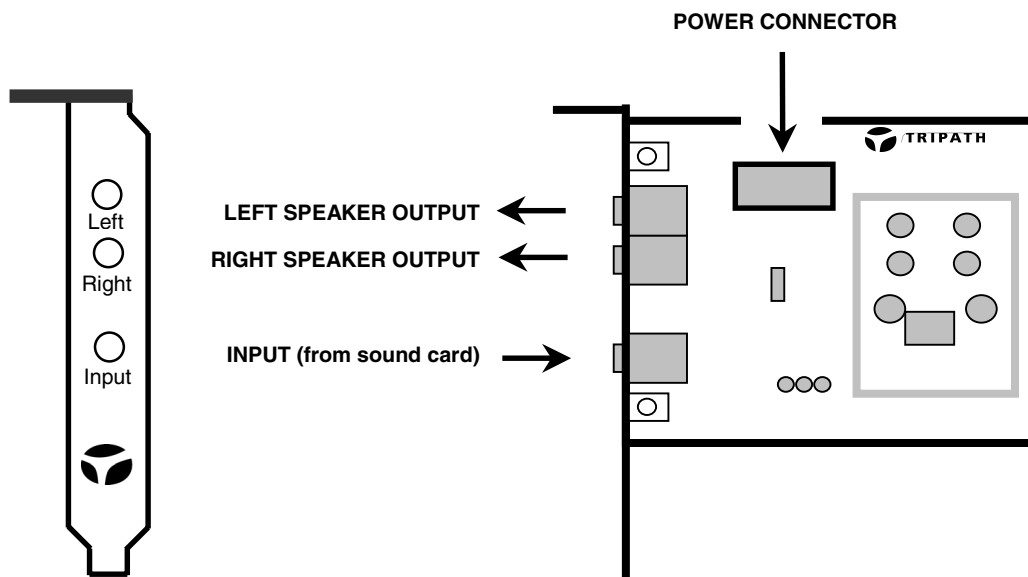
Diagram A

Internal Connections

PC Power Supply

CD-ROM or
Hard Drive

TIO Card

Y-power cable
(Included)

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<u>Diagram B</u>

External Connections

3.5mm speaker cables
(Included)

3.5mm to 3.5mm cable
(Included)

TIO card

Input   Right   Left

Sound Card

"Line Out" or "Speaker Out"

Red

Red

− +

− +

Left Speaker

Right Speaker
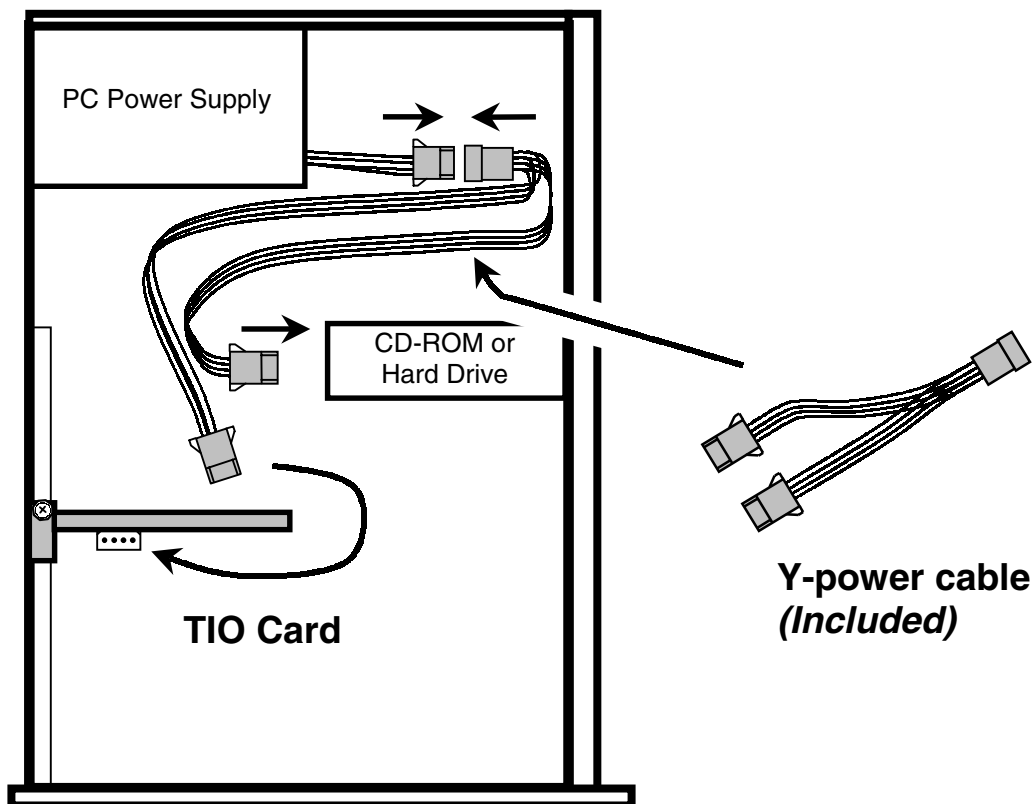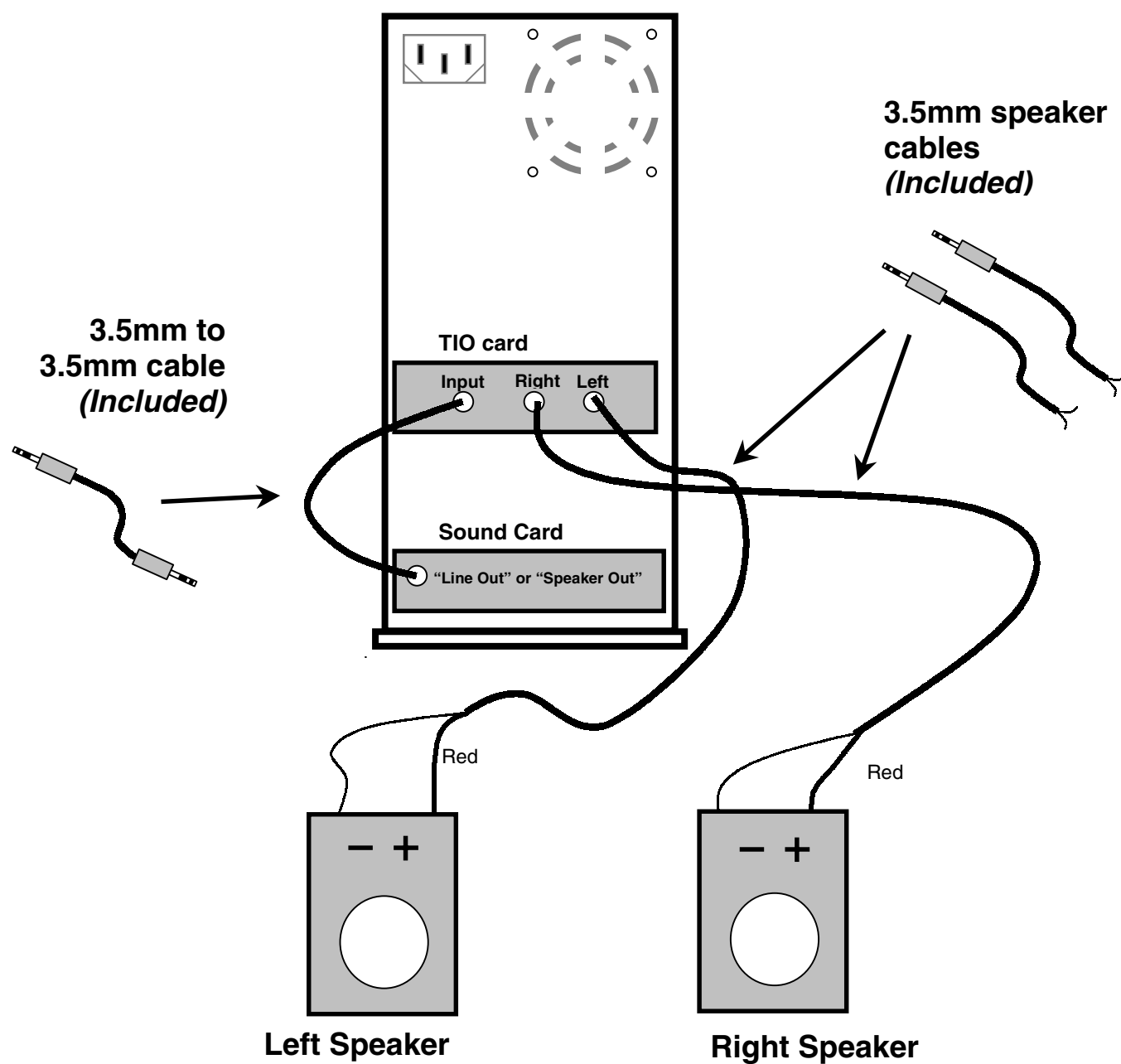
Operating TIO

If you are using MS Windows, there are multimedia mixer settings which you can adjust for maximum performance of your TIO card. In the lower right hand corner of your screen there should be a speaker icon. Left clicking on it once should produce a volume control - this is what you will use to adjust the volume on your TIO card. Double click on this speaker to reveal your multimedia settings - there will be many sliders to adjust the volume of CD, Wave, MIDI, and other sources. Adjust the mixer settings as necessary and then use the Main Volume for adjusting the sound to a comfortable listening level.

Congratulations! You are now ready to enjoy your new TIO card. Listen to internet radio, MP3s, CDs, or DVDs and experience the difference.

Frequently Asked Questions

1. How do I open my PC?
   See your PC Manual or contact your PC manufacturer.

2. Where is the best place to mount TIO inside my PC?
   The best place is along the back of the chassis in a location near the sound card. TIO uses a bracket similar to PCI cards, so mounting TIO over an unused PCI slot is a good idea. TIO can be mounted over an unused ISA slot or other PC blank with no associated PC slot, but be very careful that TIO does not touch other PC cards.

3. Can I drive a subwoofer with TIO?
   Yes, TIO can be used to drive a subwoofer by using the configuration shown on page 10 of this manual.

4. I have some background noise. Where is it from?
   Sometimes, inexpensive sound cards are a bit noisy. The best way to lower the noise is to upgrade your sound card.

Troubleshooting Guide

1. I hooked everything up and followed the directions, but TIO still won' t play.
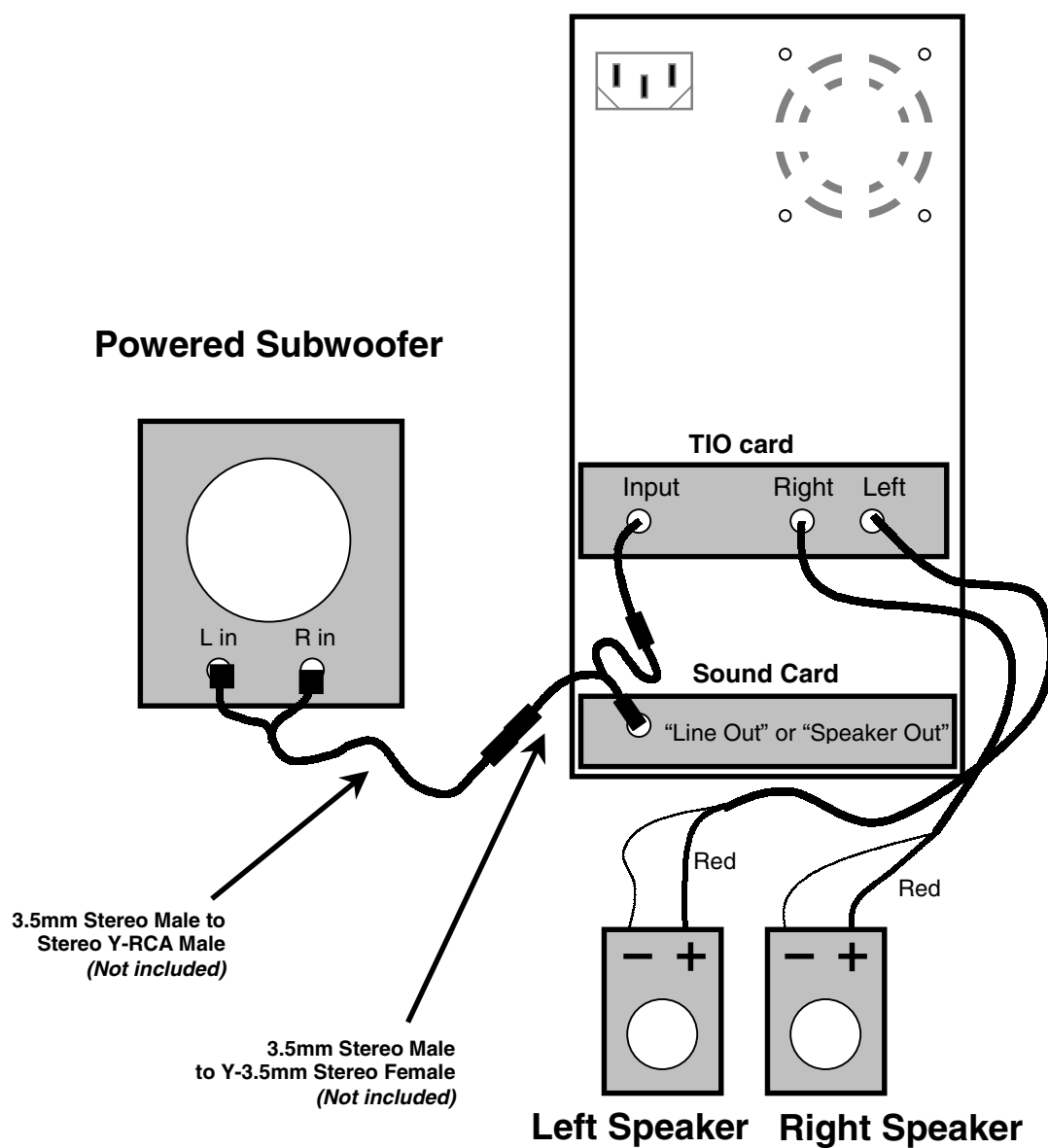
   - Make sure your sound card is functioning. Plug headphones or powered speakers into the "speaker out" of the sound card.

   - With your PC turned off and unplugged, make sure TIO is plugged firmly into the PC power supply.

   - Check the speaker connections, and make sure both the Left and Right speaker wires are correctly attached to the speakers. Check your speaker manual if you do not understand how to connect the speaker wires.

   - Make sure both the Left and Right speaker cables are firmly plugged into the TIO's "Left" and "Right" jacks.

   - Check the cable connecting your soundcard to TIO. Make sure that one end is connected to the soundcard's "Line Out" output jack and the other end is plugged into the TIO's "Input" jack.

   - Once you have verified that all of these conditions are met, exit Windows and turn off the power to your PC. Restart your PC.

   - Is the music / sound source really playing? Check the volume control in your application. Use the appropriate volume slider controls to adjust the sound output.

Further Support

For further assistance contact the Tio Support Group via one of the following:

   - phone: 408-565-6838
   - email: tio@tripath.com

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Connection for Driving Home Theater Subwoofer with TIO

Powered Subwoofer

TIO card

Input   Right   Left

L in   R in

Sound Card

"Line Out" or "Speaker Out"

Red

Red

**3.5mm Stereo Male to
Stereo Y-RCA Male**
(Not included)

**3.5mm Stereo Male
to Y-3.5mm Stereo Female**
(Not included)

Left Speaker   Right Speaker

Powered Subwoofer without Outputs

Subwoofer Connections (cont.)

**Powered Subwoofer
with Line Level Outputs**

TIO card

Input   Right   Left

**3.5mm Stereo Male to
Stereo Y-RCA Male**
(Not included)

L   R
OUT

L in   R in

Sound Card

"Line Out" or "Speaker Out"

Red

Red

− +   − +

Left Speaker   Right Speaker
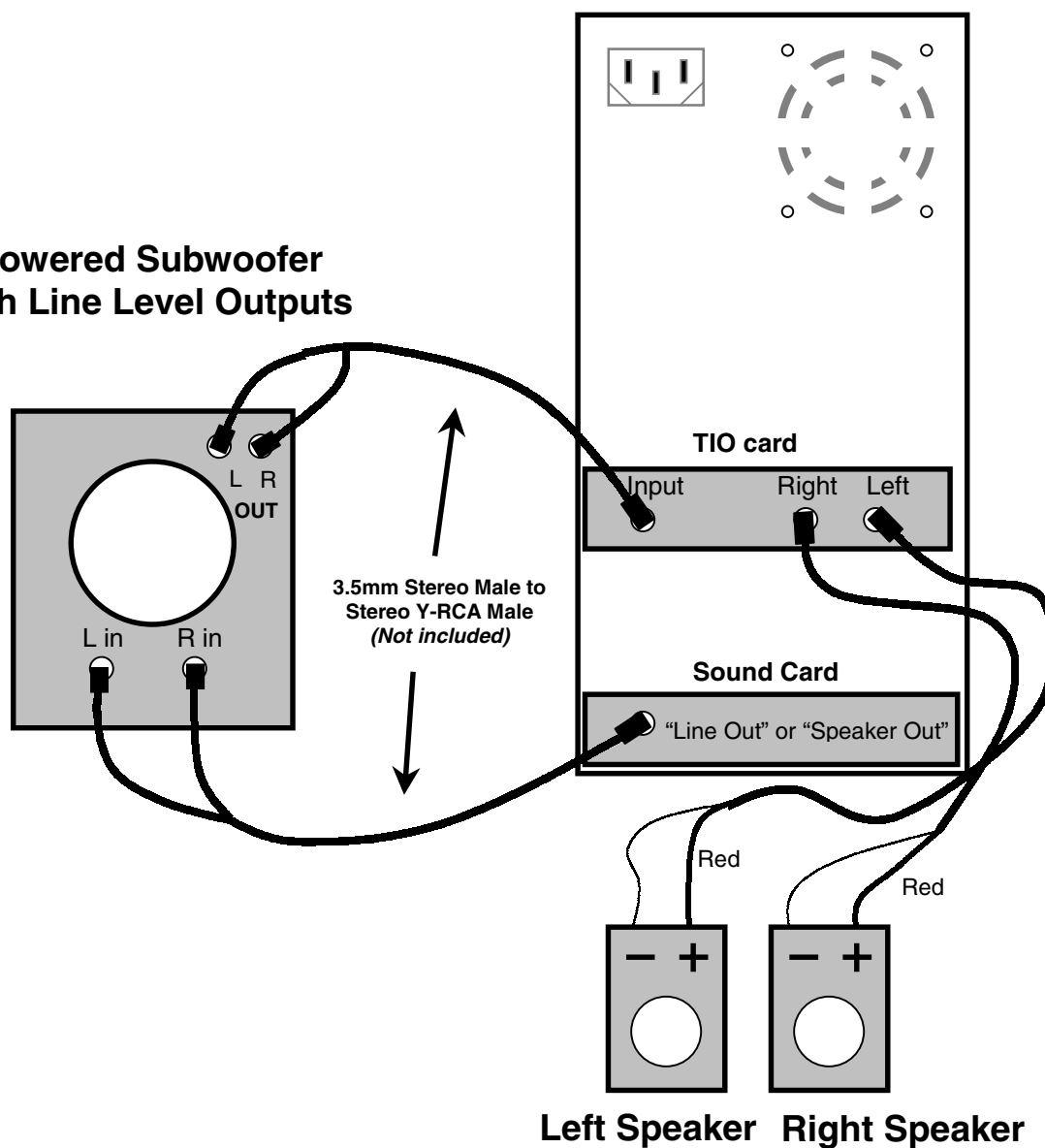
Powered Subwoofer with Outputs

COMPLIANCE INFORMATION STATEMENT

Product Name: **TIO**
Product Model Number: **TIO-TA1101B**

FC

> **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 undesired operation.**

RESPONSIBLE PARTY

Responsible Party's Name: Alan Soucy

Signature:

Responsible Party's Phone Number: 408-567-3000

Company Name: **Tripath Technology, Inc.**
Street Address: **3900 Freedom Circle, Suite 200**
City, State & ZIP   **Santa Clara, CA 95054**

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Declaration of Conformity

$C\mathcal{E}$

Application of Council Directive(s):   **89/366/EEC**
Standard(s) to which Conformity is Declared: **EN 50081-1:1992**
                                              EN 50082-1:1997

CE Mark Test Report: **TRI 6590**

Manufacturer's Name: **Tripath Technology**
Manufacturer's Address: **3400 Freedom Circle, Suite 200**
                              Santa Clara, CA 95054

Product Name: **TIO**
Model Number: **TIO-TA1101B**

*I, the undersigned, hereby declare that the equipment specified above
Conforms to the above Directive(s) and Standard(s).*

Signature: _Alan Soucy_

Full Name: Alan Soucy

Position: VP of Applications

Company Name: **Tripath Technology**
Company Address: **3900 Freedom Circle, Suite 200**
                  Santa Clara, CA 95054

Notes

Notes

Limited Warranty

Tripath warrants this product against defects in materials and workmanship for a period of 90 days from the date of original retail purchase. It is your responsibility to establish the warranty period by verifying the original purchase date with your receipt.

If you discover a defect and notify a Tripath customer service representative during the warranty period, Tripath will, at its option, repair, replace or refund the purchase price of the product to you at no charge provided you return it during the warranty period with transportation charges prepaid to Tripath.

THIS WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE. TRIPATH DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. TRIPATH IS NOT RESPONSIBLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING FROM ANY BREACH OF WARRANTY OR UNDER ANY OTHER LEGAL THEORY. Because some jurisdictions do not permit the exclusion of limitation set forth above, they may not apply in all cases.

For each product returned for warranty service, please attach your name, address, telephone number and a copy of the bill of sale along with a detailed description of the problem for which service is requested. Prior to returning the product, you must obtain an RMA# (Return Material Authorization) number from Tripath. You are responsible for packaging the product to be returned and should take care that the product is packed in its original packaging. If the repairs are covered by the limited warranty and if the product was properly shipped to Tripath, we will pay the return shipping charges.