3D AUDIO COMPONENT
ULTRAQ™

Installation and Operation Guide

QSOUND

Welcome!

Congratulations on your purchase of the UltraQ 3D Audio Component! UltraQ delivers remarkable 3D sound immediately from virtually any source, using any regular stereo playback system such as powered multimedia speakers and compact or full-size home stereos. The information inside this guide will help you get connected in minutes.

UltraQ uses QSound's patented technology—simply the most effective and best-sounding 3D sound imaging enhancement available. This process was developed directly from QSound Labs' ground-breaking 3D audio technology for professional recording applications.

UltraQ will make all your audio—whether from your PC, game console, CD or tape player, laser disk, TV or VCR—sound bigger, better and more realistic than you've ever heard it before. Thanks to UltraQ's outstanding Mono-to-3D capabilities, even your favorite old mono games or mono movies will take on a fresh perspective.

For best results, refer to the Optimal Listening Setup guidelines (right) for information on arranging your speakers.

A Word About Mono, Stereo and UltraQ Modes

To make the best use of your UltraQ processor, it's helpful to understand a bit about monophonic and stereophonic audio signals.
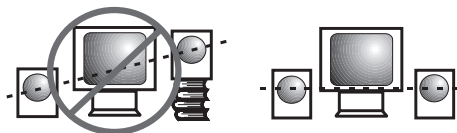
Real stereo signals consist of two channels (left and right) which *differ from each other* to a degree that is completely dependent on the recording and production methods used. The differences between the channels create conventional stereo imaging, which gives us the impression of various individual sounds coming from different locations between the speakers.

Monophonic means "single-channel". Very few sound systems today are mono, but mono sounds are often still delivered through two speakers. In this case, the same signal goes to both left and right speakers, resulting in the impression that the sound is coming from a point midway between them. In QMono mode, your UltraQ unit will create a 3D stereo image for you.
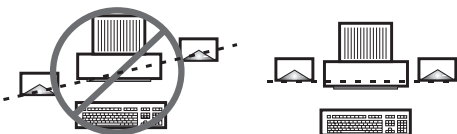
In QStereo mode, UltraQ will expand the inherent imaging in true stereo signals while maintaining the relative position of various individual sounds. Although QMono mode will work with stereo signals, QStereo mode uses this inherent imaging for superior effects.
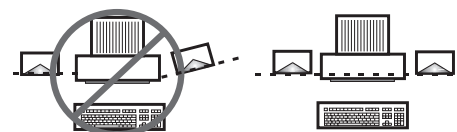
QSound Optimal Listening Setup

For best experience of QSound (or even regular stereo!) imaging, the best advice is to try to set up your speakers symmetrically, that is, so that you are positioned in the center and each speaker operates under similar conditions. The following diagrams illustrate this concept.
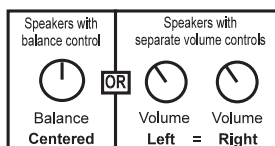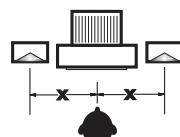
1. Speakers should be at the same height.

2. Speakers should be in the same plane.

3. Speakers should be at the same angle.

4. Equal L/R Volumes

Speakers with balance control — Balance Centered — OR — Speakers with separate volume controls — Volume Left = Volume Right

5. Listen centered

SERVICE INFORMATION

If you feel your UltraQ needs service, first contact us to make certain that the problem is a defective product. **You must obtain a Returned Merchandise Authorization (RMA) number and shipping instructions relevant to your geographical region from QSound Technical Support before shipping the product!**

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1. Connecting UltraQ

UltraQ is designed to be inserted between the *sound source* (computer, CD player, etc.) and a pair of amplified ("powered") speakers or a suitable stereo amplifier / speaker combination. It is a *line level* device, meaning that is intended to work with the intermediate signal levels common in audio systems. UltraQ is not intended to drive unpowered speakers directly.
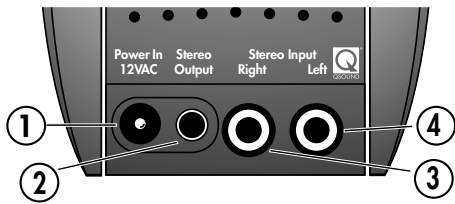
⚠ **Caution:** **UltraQ should not be connected to the output of a power amplifier. Serious damage may result!**

Sound Source	➡	UltraQ	➡	Amplifier / Speakers

The most common connectors used for audio are the 3.5mm *mini plug* and the *phono plug*. The mini plug is usually stereo, that is, one connector carries both left and right signals. The phono plug is only capable of connecting a single signal, so in stereo audio systems phono plugs are always used in pairs. They are often are colour-coded, e.g. black for left and red for right. The *barrel plug* is never used for audio connections but is almost exclusively used for AC power adaptors.

3.5mm mini plug (stereo) **phono plug** **barrel plug**

UltraQ uses phono-style jacks (panel connectors) for input and a 3.5mm mini jack for output. It is supplied with an audio connection cable (5) having a 3.5mm mini plug at one end, and two phono plugs at the other. In most cases this combination will allow you to connect to all common audio systems. Certain situations may require additional cables or adaptors.

Power In 12VAC **Stereo Output** **Stereo Input Right   Left**

① ② ③ ④

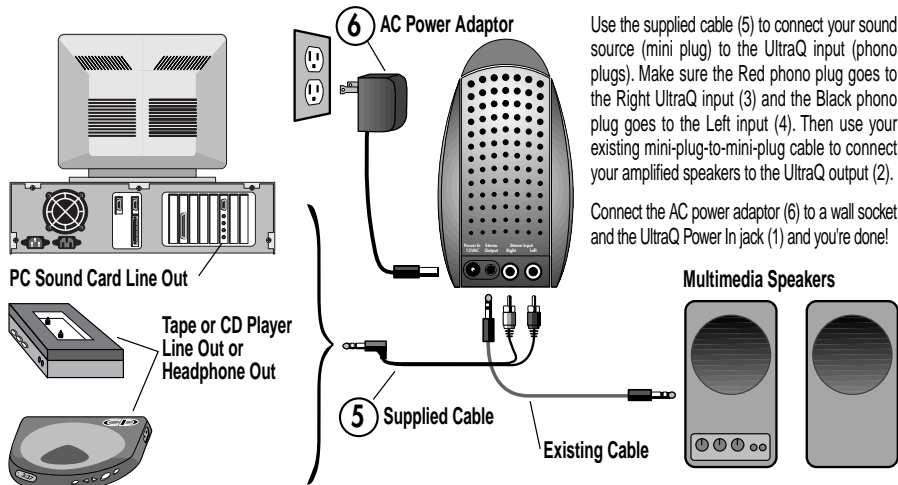The diagram at left shows the UltraQ connection panel.

The UltraQ AC power adaptor (6) connects at (1).

⚠ **Caution:**

The UltraQ power adaptor produces 12VAC. Use of any other AC adaptor may cause malfunction or damage to the unit!

Output to your amplifier or amplified speakers is available from the 3.5mm mini jack at (2), while the right and left input signals from your sound source connect at the phono jacks (3) and (4) respectively.

1a. Connecting to a Mini Plug System

⑥ AC Power Adaptor

PC Sound Card Line Out

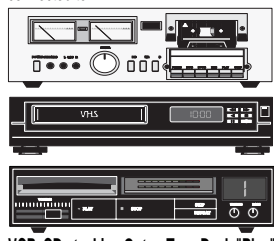**Tape or CD Player Line Out or Headphone Out**

Use the supplied cable (5) to connect your sound source (mini plug) to the UltraQ input (phono plugs). Make sure the Red phono plug goes to the Right UltraQ input (3) and the Black phono plug goes to the Left input (4). Then use your existing mini-plug-to-mini-plug cable to connect your amplified speakers to the UltraQ output (2).

Connect the AC power adaptor (6) to a wall socket and the UltraQ Power In jack (1) and you're done!

Multimedia Speakers

⑤ Supplied Cable

Existing Cable

1b. Connecting to a Phono Plug System

First use your existing phono-to-phono cable to connect your sound source output to the UltraQ input, matching left and right. Then use the supplied cable (5) to connect the UltraQ output (mini plug) to your receiver or amplifier (phono plugs - Red for Right, Black for Left). Use the same input on your amplifier that your tape deck, VCR, CD player, game console, etc. was previously connected to.
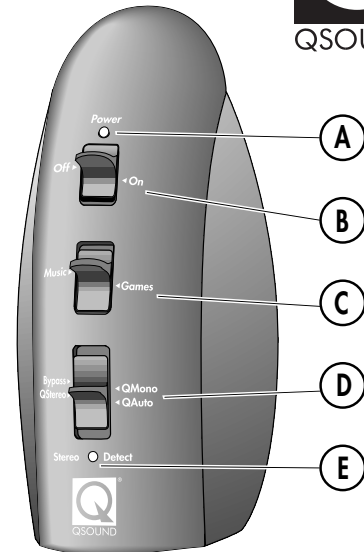
⑥ AC Power Adaptor

Connect the AC power adaptor (6) to a wall socket and the UltraQ Power In jack (1) and you're done!

If your receiver or amplifier has an unused set of tape deck connectors (usually marked "Play" and "Rec") you can use these to connect UltraQ so that it will work with *all* the sound sources you have available. See section 1c.

VCR, CD etc. Line Out or Tape Deck "Play" (Note: will not work with Turntable. See 1c.)

⑤ Supplied Cable

Existing Phono Cable

Amp or receiver & speakers

2. Using UltraQ

®
Q QSOUND

Power
Off   •On
Music   •Games
Bypass• QStereo   •QMono   •QAuto
Stereo ◯ •Detect

Ⓐ
Ⓑ
Ⓒ
Ⓓ
Ⓔ

Q QSOUND

1. Turn on the UltraQ unit, using the **Power Switch (B)**. The **Power Indicator (A)** should light. If not, check your power adaptor.

2. Turn on the rest of your equipment.

3. Adjust the playback volume to a suitable level and start playback from your sound source.

4. Adjust the UltraQ settings according to the following guidelines.

Expansion Mode Switch (C)

This switch provides two effect settings. The Music setting is recommended for listening to CD audio, while the Game setting provides more extreme expansion suitable for sound effects.

The Translation Mode Switch (D)

Bypass defeats the QSound effect and passes the input signal directly to the output. (Power must still be present.)

QMono provides a Mono-to-3D function that synthesizes a QSound 3D stereo signal from mono or stereo input. (In this mode, any stereo signals are combined to mono before being processed.)

QStereo provides a Stereo-to-3D mode, in which true stereo signals will be translated to a wide QSound 3D image while the respective positions of various component sounds is retained. (Mono signals will be essentially unaffected in this mode.)

QAuto automatically chooses QMono or QStereo mode according to the nature of the input signal. The **Stereo Detector (E)** indicates that the input signal is stereo. This shows which mode will be selected by the automatic feature, and may also be used as a guide for manual mode selection. Note that a stereo signal *naturally has brief periods of mono*; it is normal for the Stereo Detector to turn on and off when monitoring stereo content. If automatic switching occurs frequently, you may wish to select QStereo mode.

1c. The "Tape Loop" Connection Method

If your receiver or amplifier has a spare set of tape deck jacks, connect the Output or "Rec" left and right tape jacks to the UltraQ left and right input jacks using a dual phono-to-phono cable. Then connect the amp Input or "Play" left and right tape jacks (phono) to the UltraQ output (mini) using the supplied cable (5).

Now select "Tape Monitor" mode for the tape deck connectors you have used on your amp or receiver. (See your amp manual.) Now all sources including radio and turntable can be selected as you normally do and UltraQ will enhance every signal in your system!