

**HINT:** Every component has an "IN" and an "OUT"  
These are referred to as inputs and outputs.  
When you trace the logical path, audio will make sense.

**SOURCE:** What are you trying to hear?

This can be a microphone, CD player, i-pod, tape deck, or even a TV.

IN, or INPUT: Your voice, or a CD, or itune or.....

OUT or OUTPUT: A cable or wire will go from the source, or output, into the Mixer's input.

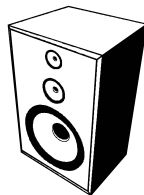
**MIXER:** The operator decides what the audience gets to hear. A Mixer "mixes it up". Essentially the signals coming from the various sources are entering into the mixer INPUTS. Using the mixer controls the operator selects which music or voice will get sent OUT for necessary amplification. It is only necessary to amplify what you wish to be heard right now -  
When a DJ makes small talk while your favorite song is playing he is simultaneously selecting more than one source to be output. In the situation where you will not ever need to hear a second source, such as voice only for an auctioneer, or a dance recital CD with no DJ you may not need the mixer. Ask a Big Ten Rentals audio professional to help you configure what you need.

**POWER AMPLIFIER:** Just like it sounds. Take the wires from the mixer output and run them into the Amplifier input. If your party is large you may need to rent more than one amp, otherwise the guests will complain they can't hear. Now that you've given the power to the sound, all you need to do is hear it! So, run the amplifier outputs to the Speakers.

**MORE STUFF TO KNOW:** Usually you need the mixer, even if you only have one source to be mixed. The mixer has another purpose, acting as a preamp which essentially conditions the output of the source so the amp can receive & understand a uniform signal.

**KLIPSCH SPEAKERS:**

Input comes from the AMP.  
We usually rent two speakers per amp.  
The Output is to your ears!



**MACKIE SPEAKERS:**

These speakers each have their own built in amp. This eliminates the "amp step" and associated wiring. The Mackie's also have an adjustment eliminating the preamp requirement, so if you only desire to hear one source, you may eliminate the mixer too. Before eliminating the mixer you should learn more about this, because there are drawbacks related to volume control.

