

Whereas electronic _____ is typically taught with *visual* reinforcement—staring at an oscilloscope, meters, or a computer screen—we will work by *ear*, as befits the development of sonic circuitry. A *monitor amplifier* thus becomes your _____ tool. Whereas it would be nice to listen to our boops and beeps through a 250 watt Bryston amplifier and a pair of Altec 604E loudspeakers, I _____ the use of a small, battery-powered amplifier (see figure 1.1). It is cheaper, but more importantly it is *safer*: many of our experiments entail touching _____ circuitry with damp fingers, and those fingers should be kept far, far away from the 120 (or 240) volts streaming into any device with a power cord.

We need a fair amount of *gain* at the input to our amplifier, especially at the beginning of this book, where we start out making a variety of _____ with pretty low output levels. Therefore a typical pair of battery-power speakers intended for amplifying a _____ CD player, MP3 player, computer or other *line level device* _____. Better to use one of those wee bitty guitar amps by Fender, Marshall, Dan Electro, etc.—they look like little lunchboxes, or the guitarist's equivalent of a shrunk head. The cheapest one I've found is from Radio Shack (#277-1008, \$12.99). It also has a very useful jack for an external _____, which comes in handy in chapter 8. The more expensive ones pitched at guitarists, on the other hand, _____ the advantages of a bigger speaker, a tone control, overdrive/distortion, and a more robust and useful 1/4 inch input jack (the Radio Shack amp uses 1/8 inch inputs).

If you are feeling slightly adventurous, the cheapest (and most flexible) solution is to buy a low power (< 1 watt) amplifier kit from any of a number of online retailers (see figure 1.2). These kits _____ all components, a tidy little printed circuit board, and instructions

have - portable -microphones - will not do - primary - include – engineering – electronic – speaker – advocate -

Whereas electronic _____ is typically taught with *visual* reinforcement—staring at an oscilloscope, meters, or a computer screen—we will work by *ear*, as befits the development of sonic circuitry. A *monitor amplifier* thus becomes your _____ tool. Whereas it would be nice to listen to our boops and beeps through a 250 watt Bryston amplifier and a pair of Altec 604E loudspeakers, I _____ the use of a small, battery-powered amplifier (see figure 1.1). It is cheaper, but more importantly it is *safer*: many of our experiments entail touching _____ circuitry with damp fingers, and those fingers should be kept far, far away from the 120 (or 240) volts streaming into any device with a power cord.

We need a fair amount of *gain* at the input to our amplifier, especially at the beginning of this book, where we start out making a variety of _____ with pretty low output levels. Therefore a typical pair of battery-power speakers intended for amplifying a _____ CD player, MP3 player, computer or other *line level device* _____. Better to use one of those wee bitty guitar amps by Fender, Marshall, Dan Electro, etc.—they look like little lunchboxes, or the guitarist's equivalent of a shrunk head. The cheapest one I've found is from Radio Shack (#277-1008, \$12.99). It also has a very useful jack for an external _____, which comes in handy in chapter 8. The more expensive ones pitched at guitarists, on the other hand, _____ the advantages of a bigger speaker, a tone control, overdrive/distortion, and a more robust and useful 1/4 inch input jack (the Radio Shack amp uses 1/8 inch inputs).

If you are feeling slightly adventurous, the cheapest (and most flexible) solution is to buy a low power (< 1 watt) amplifier kit from any of a number of online retailers (see figure 1.2). These kits _____ all components, a tidy little printed circuit board, and instructions

have - portable -microphones - will not do - primary - include – engineering – electronic – speaker – advocate -