

# A BUYER'S GUIDE FOR TACTILE SOUND TRANSDUCERS

Placing high-fidelity, tactile sound transducers in your home theater adds a new level of enjoyment to your movie-watching experience, taking you far beyond the experience you find in regular movie theaters. Using time-proven technology, transducers allow you to “hear” audio through your body, helping you feel more connected to the movie you are watching. However, since there are many products offered today that promise tactile sound, buyers need to be clear about some of the key differences within the industry. So, what should you look for when shopping for tactile sound products? Following are a few suggestions for how to assess home theater, tactile sound products:

## *Frequency Response*

The Home Theater marketplace has been flooded with devices designed to vibrate your home theater furniture. These products, often referred to as shakers or kickers, do a great job if your goal is to merely “shake” your furniture. Operating much like oversized versions of the doorbells commonly found in older homes, these devices typically vibrate somewhere between 40 to 80 Hz. The problem with using these devices is that different audio segments found in movies (car crashes, trains rumbling, drums playing) all deliver the same tactile experience (vibration). More sophisticated products, such as full-frequency transducers, can deliver a full range of audio, from 20 Hz up to at least 17 kHz. A transducer with this kind of frequency response can deliver the subtle, fundamental tones and overtones necessary for you to distinguish between a cymbal crash and a car crash.

## *Power*

A tactile sound transducer must be able to set a large mass in motion. When mounted in your home theater furniture, the transducer must transmit tactile sound through the furniture in order to reach your body. Getting enough tactile energy to your body requires a great deal of power. There are several inexpensive transducers that work at around 30 Watts. However, it may take 4, 6, or even 8 of these transducers to deliver the same experience as a single 100 to 150 Watt transducer. In the long run, it is much less expensive to select the transducer with the right amount of power delivery for your application.

## *Mounting Hardware*

It is unfortunate when manufacturers cut important corners to increase their profits, but a few transducers on the market suffer from this problem. One example of this dilemma is the increasing number of transducers that come with plastic mounts. Given the high degree of stress these mounts can receive during installation and operation, it is important to choose a transducer that comes with metal mounting hardware. This type of mounting hardware will help reduce breakage resulting from continued use or inadvertent bumps to the side of the transducer.





### ***In-Wall Transducers***

Some companies are trying to convince consumers that their walls can be turned into high-quality speakers with the use of transducers. Although drywall can be made to radiate sound, drywall is not conducive to sound reproduction and usually fails to reproduce high-quality, full-frequency sound. If you want high-quality sound coming from your walls, the best alternative is to place high-fidelity speakers on or in the walls. The use of transducers for this purpose is often found to be very difficult and unnecessarily expensive.

### ***Technical Support***

Selecting and installing transducers can be a bit tricky, depending on your home theater application. Therefore, you want to insure that the company you are purchasing transducers from has an accessible and well-trained technical support staff. Quite often discount companies or auction web sites will sell transducers at very low prices, but they will be completely unable to help you with issues such as transducer spacing, amplification requirements, and installation techniques. Thus, it is worth taking a little extra time to insure the company you buy from can adequately support your technical needs.

### ***Warranty Coverage***

Let's face it, everything eventually breaks down, including transducers. In the transducer business, many companies have come and gone. Therefore, it is important to find a recognized brand and then buy products manufactured by that company. Some questions you might want to ask include, "How long has your company been in business?," "What is your return policy?," and "If there is a manufacturing defect, will the company ship me a free replacement?" The answers to these questions will help you make a sound choice.