



**SX1000**  
**Midrange Contour and Attenuation Adapter**

## SX1000 "Presence Zone Adapter" for Midrange Contour and Attenuation

"Are you experiencing hard mids? The honk and blare that may be bothering you can be removed. Usually the most convenient mounting in a vehicle will be compromised in audio quality.

A speaker system optimized for use in an ideal flat panel can experience dramatic changes in sound quality and balance when actually installed in a vehicle in areas like the kick panel area or any cave-like location. The deeper into the kick panel area the greater the midrange emphasis that can be the result. The solution for obscure mounting locations is the 'zone adapter'.

The SX1000 is an optimum solution to brightness problems in autosound installations because it focuses the cure at the cause selectively.

Hardness, brightness and "wolf" notes are all the result of too much sound energy or output in the midrange which could fall in typically from 300Hz to 3kHz. Inexperienced users may think these sounds

are tweeter related but in fact the frequencies involved are surprisingly lower. This means controlling the mid-bass driver is almost always the solution to this very common problem.

### Why should this happen at all if the speaker systems are designed correctly?

The answer lies in the modification of the acoustic load by the mounting position of the speakers and in a loss of absorption of midrange frequencies on a selective basis. Leatherette seat covers versus suede can strongly enhance midrange especially in the vicinity of the front of the car near the driver. The same area can lead to mounting positions that maximize midrange energy to the front again to the driver and passenger. Usually the midrange driver is just too close to the ear and is not directional enough not to "bother" the closer listener. The result is almost always the same - a local problem with "blare" right in the most critical position.

Equalizers are not much of a solution since they affect the offensive sound everywhere in the car resulting in hot and cold spots for midrange. What the SX1000 does is equalize the single speaker responsible for over-energizing the local volume around it and leaving the rest of the vehicle which does not display the problem unchanged. This gives the benefit of a high end full custom "designed in place" installation without searching out and designing in full-custom parts.

The SX1000 has provision to act in small steps on the whole of the midrange for bigger problems and adds two extra settings focussed on the lower treble for higher frequency effects normally associated with the tweeter. By a proper choice of many possible combinations of these settings problem cars become winning cars. The SX1000 is a silver bullet for too much presence usually experienced in some smaller sportier cars but which could occur in any vehicle under the right circumstances.

In a few installations with sealed boxes when adding the SX1000 we recommend increasing the minimum recommended size of the box dimensions slightly as a small extra resistance will appear in-line with the speaker. About 20% in each dimension is plenty. Many times with straight panel mounting mid-bass balance will actually improve.

Happy Listening

CDT Audio Engineering.

