

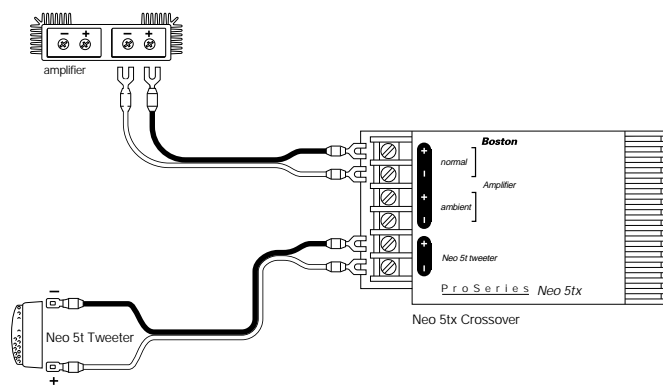
Boston

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Technical Information

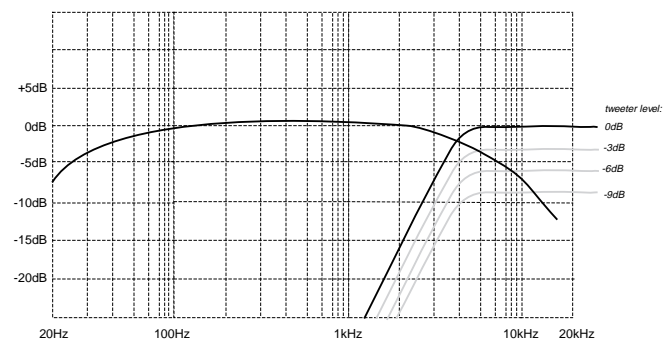
Neo 5t Tweeter System

The Boston Acoustics Neo 5t Tweeter System consists of two highly acclaimed ProSeries Neo 5t Tweeters, tweeter mounting hardware, and a pair of Neo 5tx Crossovers. The crossovers are specifically calibrated to allow the tweeters to be added on to custom car audio systems in one of two ways. "Normal" and "Ambient" inputs are provided on the crossover.



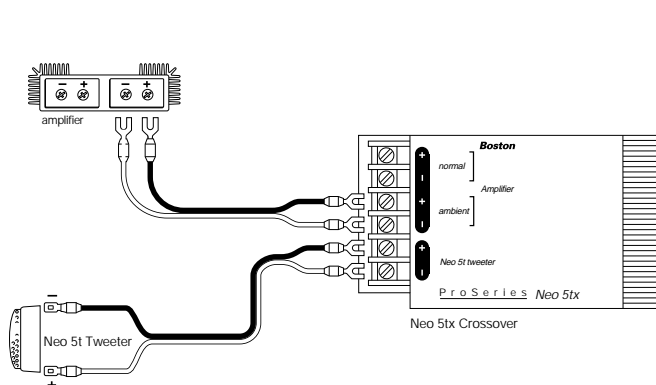
Normal Mode

Traditionally, the Neo 5t System is used to augment the high frequencies in an existing system where additional high-end response is desired. In a typical application, the Neo 5t System is installed along with a full-range speaker with the Neo 5t Tweeter reproducing frequencies above 3,500Hz.



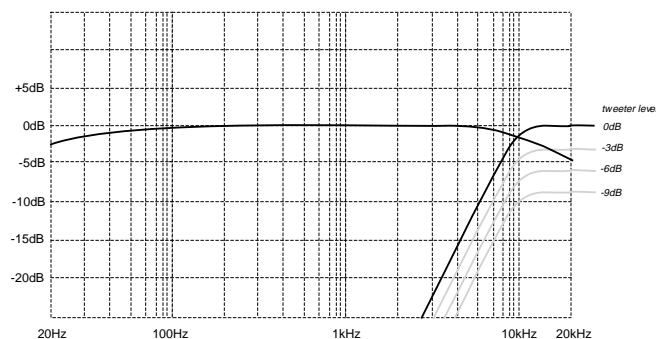
System Response—Normal Mode

This application can be extremely useful in systems where the primary speaker's high-frequency response is limited due to design or location (Speakers mounted at extreme off-axis locations often exhibit poor high-end response from the listening position).



Ambient Mode

An additional feature of the Neo 5tx Crossover is the ability to cross the tweeter over at a much higher frequency in the "ambient" mode. This is often used in very high-performance systems where the main speakers are mounted low relative to the listener. In this mode, the system can "lift" the soundstage closer to ear level.



System Response—Ambient Mode

In ambient mode, the Neo 5t Tweeter is added to the system only above 8,000Hz. This way, the tweeter only augments the system at the highest frequencies and does not interfere with the fundamental tones of the instruments or vocals.

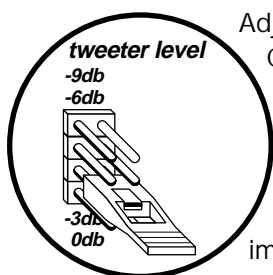
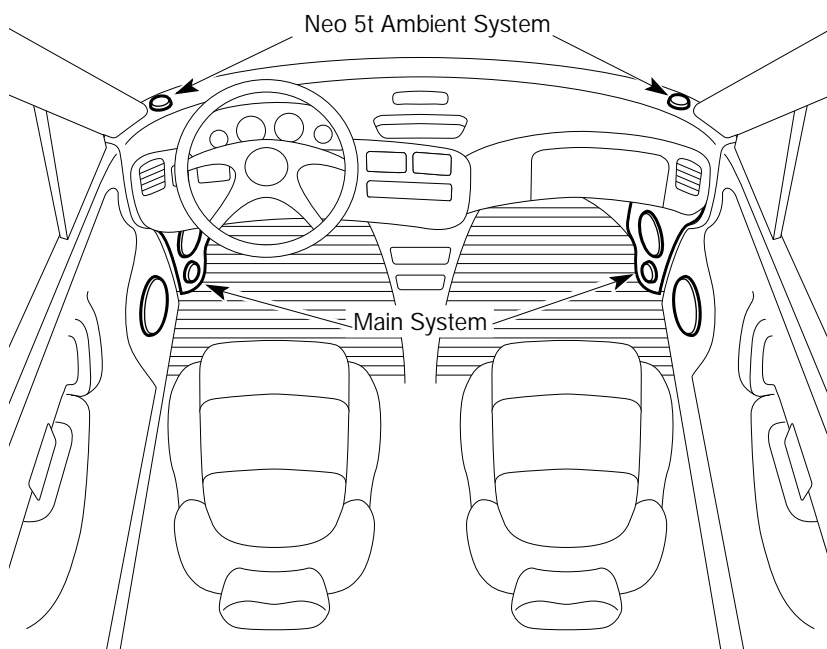
Neo 5t System—Ambient Mode Applications

A common application for the Neo 5t System in ambient mode is in a high-end installation where the main speakers are mounted low in the kick panels. Locating a mid/tweeter combination in the kick panels can give very realistic left to right imaging in a system due to the point source configuration of the drivers, as well as the equalization of the left and right path lengths relative to one another. However, this application forces the speakers much lower vertically than the listener's ears. One of the fundamental challenges in a kick panel installation is trying to keep the soundstage from sounding like it is at foot level.

Installing the Neo 5t tweeters higher than the main component speakers can give the illusion that the soundstage is much higher in the car. Using the ambient mode, the Neo 5t tweeters reproduce only the highest frequencies, not the fundamental tones of the instruments or vocalists. This maintains the left to right image integrity while adding just enough signal at a higher location to raise the soundstage from floor level to dashboard level.

A typical location for the ambient tweeters is in the dashboard or windshield pillars in front of the listener. It is usually better to install the tweeters directly above the primary tweeters. This minimizes their impact on the left/right imaging of the system, allowing the primary soundstage to be very stable—with precisely localized instrument and vocal placement.

For best results, experiment with exact placement before finalizing the location of the Neo 5t Tweeters. If the main speaker system is already installed, wire the Neo 5tx Crossovers up to the tweeters and place the tweeters with double-stick tape or velcro. Moving the speakers to new locations and comparing the sound with various locations will ensure the best placement for the tweeter before any holes are drilled or wiring is finalized.



Adjusting the tweeter level is also critical. Four different signal levels are available on the Neo 5tx Crossover by means of a jumper (0dB, -3dB, -6dB, -9dB). It usually only takes a little bit of signal to lift the sound stage. Turning the ambient tweeters up too loud can distract the listener and focus the attention on the tweeters instead of the music.

Used correctly, the Neo 5t Tweeter System can not only add high-frequency content to systems that are otherwise lacking these frequencies, but can also augment and fine tune the imaging and soundstage characteristics of very high-end systems.

Specifications

	Neo 5t System
TWEETER SIZE	1-inch (25mm)
MOUNTING DIAMETER	1 ⁵ / ₈ -inch (42mm)
NOMINAL IMPEDANCE	8 ohms
RECOMMENDED AMPLIFIER POWER	20–100 watts
FREQUENCY RESPONSE (±3dB, in-car)	3,800–22,000Hz

System Contents

two Neo 5t Tweeters
two Flush-mount kits
two Angle-mount kits
two Surface-mount kits
two Neo 5tx Crossovers

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