

AUTOMATED HORN SYSTEM

Sound Comparison: Train Horn vs. AHS™

Locomotive engineers are required by law and the railroad's code of operating rules and regulations to sound the train's horn 1/4 mile in advance of the crossing. They are also required to continue to sound the horn until the train arrives at the crossing.

If the train horn is to be an effective warning device for the motorist, it must provide a sound level capable of initiating a response from the driver when the train is approaching the crossing. Unfortunately the sound level required to achieve that response and the location of the train relative to the crossing creates a significant noise impact on the community.

The two noise footprints below depict the area impacted by the sound of the train horn and AHS™ respectively. The comparison of the train horn and AHS™ shows a dramatic difference between the areas that are impacted at specific decibel levels. By examining the 80 decibel contour on the two footprints it can be seen that the area impacted by the AHS™ is a fraction of the size of the 80 decibel contour produced by the train horn.

AHS™ is an innovative railroad signaling device that significantly improves safety for motorists and pedestrians and dramatically reduces the amount of noise pollution created by train horns along rail corridors in populated areas. The AHS™ is mounted at the crossing, rather than on the locomotive, to deliver a longer, louder, more consistent audible warning to motorists and pedestrians while **eliminating noise pollution in neighborhoods for more than 1/2 mile** along the rail corridor.

AHS™ sounds like a train horn because the tone modules in the AHS™ horns were digitally recorded from an actual locomotive horn. After receiving the signal from the railroad's track circuit warning system, AHS™ mimics the train horn warning by cycling through the standard railroad whistle pattern until the train reaches the crossing.

Once the train has entered the crossing AHS™ stops sounding its horn. A confirmation signal notifies the locomotive engineer that the AHS™ is functioning properly.

When the locomotive engineer sees that the confirmation signal is flashing, he will not be required to sound his horn unless he detects an unsafe condition at the grade crossing.

Coordination with the railroad operating company is essential since the AHS™ is directly connected to the railroad's crossing signal-warning system. The railroad operating company must issue instructions to their train crews regarding the sounding or non-sounding of the train's horn.

