

28JUL24 ETN 240016-A

Technical Note:

Taxonomy of Audio Signatures of Automotive Malfunctions

Percussive

Events repeat at regular interval

ENGINE

Harmonic

Narrow Band (<200Hz tall)

Center Hz >1kHz

BELT

500Hz > Center Hz > 100Hz

DRIVELINE BEARING

Percussive

Events repeat at random interval

High & Low Frequency

INTERIOR

Only Low (<1kHz) Frequency

SUSPENSION LOOSE

Harmonic

Wide Band (>1kHz tall)

Continuous

BRAKE WEAR

Interrupted at regular intervals
>5Hz

BOUND BALL JOINT