
Frequently Asked Questions: Audio Analysis Service

1. How good does the recording need to be?

Not very good. Most mobile devices made in the past 15 years can make a recording of much better quality than the minimum needed for this process to work.

2. Is it OK if there's background noise?

Yes. Voices, other machines, highways, winds, and other everyday noises do not affect this process. If the background noise happens to sound like an engine problem, please note that in the descriptive data submitted. As long as we know about it we can filter it out and disregard.

3. Does this process work on diesel engines, since they always knock anyway?

Yes. We have found this service particularly valuable for diesel engines, since their normal noise makes it difficult to distinguish mechanical knocks and ticks by ear alone.

4. How far away should the recording device be?

3-6 feet away is the recommended distance. Anything within 15 feet is usually usable. On engines installed in vehicles, holding the device while standing beside the open hood works well. Please remember to keep a safe distance from moving parts and WATCH OUT FOR THE FAN!

5. Is it OK to get the recording from inside the cab or passenger compartment?

If that's the only way you can get a recording in time, then send us a recording from inside the cab, and we'll do our best with it. However, try to get a recording from outside if possible.

6. What file formats are acceptable?

Audio- MP3, WAV, FLAC, M4A, AAC, AIF, and AIFF. **Video-** AVI, MPEG, MPG, MPE, MP4, MKV, WebM, MOV, OGV, VOB, M4V, 3GP, DivX, XVID, MXF, M1V, FLV, M2TS

7. How long should the recording be?

5 seconds is sufficient. Please try to avoid sending files over 15 MB since they may get stuck in the file upload system.

8. How should the engine be run?

Low idle is best, if the engine must be run under load or at high speed to duplicate the problem, please note that in the descriptive data.

8. Why would I need this service if it can't tell me *exactly* what the problem is with 100% certainty?

When traditional diagnostic processes are costly or time consuming, and you're not sure where to start, audio analysis can give you a good idea where to look for the problem and a reasonable estimate of how complicated and expensive it might be to repair.

9. Can audio analysis be used for *predictive maintenance*, before a problem occurs?

Audio analysis and vibration analysis have long been used as predictive maintenance techniques in industrial environments. However, it doesn't work as well in transportation environments, where baselines are harder to define. We think this is a solvable problem and are working to adapt the technology to transportation machinery- if you'd like to learn more, call 732.693.8312.