

INTRODUCING: TUNE DEM

The philosophy at Linn is very simple — if it sounds better, it is better.

That's why we always recommend you listen and compare music systems before choosing the right one for your home. It's really easy using our Tune Dem know-how.

When carrying out an A/B demonstration, it is sometimes possible to be confused by extraneous factors such as loudness and tone. The Tune Dem is a way to compare the two products and decide on how easy it is to follow the tune and appreciate the musical piece as a whole on each one — this allows you to hear quite clearly which product sounds better. The method involves silent repetition of the sound from the loudspeakers, silently singing along with the sound from the speaker. The easier this is to do, the more accurate the system performance.

The Tune

Our favourite method of evaluating the musical performance, and thus the performance of the hi-fi, is simply listening to the tune.

Many people immediately dismiss this as being the obviously too simplistic to provide meaningful results. But, in actual practice, this is an all-encompassing technique that more clearly brings out the differences in hi-fi systems than any other method of evaluation that we have ever used.

The music on a record consists of a signal that, at any instant, can be described with two parameters, frequency and amplitude (or pitch and loudness).

Any type of distortion will change frequency, amplitude or both. And it rarely does this in a linear manner, meaning that some frequencies or amplitudes are changed more than others are. These changes in frequency and amplitude alter the tune by changing the pitch relations in the music. For example — since the perceived pitch of a note consists of the sum of its fundamental plus its harmonics, a distortion that adds extra harmonics will shift the pitch of that note up slightly. Likewise, a distortion that results in the rolling-off of higher frequencies (thus reducing the amplitude of some harmonics) can lower the perceived pitch.

Our musical scale is composed of a series of fixed, predictable steps and our brain has an uncanny ability to follow those steps, determining when errors have been made. It is much like climbing a set of stairs. As long as all the steps are the same you can comfortably walk up the steps, come down the steps, run up, run down, take two steps at a time, even do it in the dark. However, change the size of just one step and you are likely to fall on your face.

Following the tune is much the same. If you try to follow along with the tune you will find that, on a good hi-fi system, the tune will seem to make more sense. The steps will be more regular. The notes that one instrument is playing will have some relationship to the notes that another instrument produces. You will even frequently know what note is coming next.

In the end, the better the system the less damage it does to the pitch relationships and the easier it is to follow the tune. And, since any type of distortion, regardless of its source, must alter the tune. The Tune Dem method is a comprehensive test of a hi-fi system's musical performance.

Tune Dem method

The approach we suggest when doing an A/B comparison is to listen to component A, then listen to B. If one sounds better, buy it. We have always said, "If it sounds better, then it is better."

You will find it easier to compare components in an A/B situation if you play only a brief passage of music (as little as ten seconds and certainly no more than thirty seconds) on one component. Repeat this brief passage a few times on the first product then switch to the second component and play the same passage.

By keeping the passages short, you will keep the "tune" fresh in your mind and therefore be more able to judge the relative difficulties in following the tune on each component.

If you have any problems in detecting differences in regard to the ease of following the tune, don't panic. Just sit back, relax and try again. Ask yourself a few simple questions:

- Can you hear all the musicians playing all of the instruments all of the time?
- Can you always follow the tune played by every instrument?
- How easy is it to sing-along/follow with the melody?

The remarkable thing is that once you do hear the difference you'll find that it's much more apparent than you originally thought. And the more you listen the easier this method will become. With a little practice, you'll find that you have a listening test that is consistent, repeatable, and best of all, a very reliable indicator of the performance of any hi-fi component.