Example of Video Transcriptions from Course 110: Transformer Dist. Ldspk Sys.

Transformers Outline and Lesson Text

1. Introduction

2. The Turns Ratio

3. Mechanical Analogies

4. Reflected Impedance

5. Matching Transformers

6. Transformers vs. Power Amps

7. Autoformers

8. Isolation

9. Identifying a Transformer

10. Transformer Saturation

110_05 Transformers – Clip 1

1. Introduction - 00:08

The heart and soul of the transformer distributed loudspeaker system is of course the transformer. Transformers have labels to provide the necessary information for their intended use. Even so, it's useful to understand what's going on inside. This will allow you to reason your way through problems, and handle some of the special cases that arise. This overview will provide you with the information you need to work with loudspeaker distribution transformers. The principles apply the transformers of all types, such as those used for power supplies, audio I/O, and utility power. The discussion can go a lot deeper for many transformer types. I'll stick to the basics here.

2. The Turns Ratio - 01:00

Internally, a transformer is two coils of wire in close proximity. Schematics of transformers usually depict these two coils. The electricity flowing through one coil is coupled into the other by the electrical property of induction. This can allow the audio signal to flow between two devices without a direct physical connection. Transformers are passive and require no external power source to function.

In terms of signal flow, the source connects to the primary coil. The secondary coil connects to the load. The terms primary and secondary are fundamental to transformer discussions. Of the multiple specifications that describe transformers, the most important is the turns ratio. This is the number of turns of wire on the primary, compared to the number of turns of wire on the …