

# An open letter to FM Receiver Manufacturers, Engineers, and Service Groups from Sound Technology

Gentlemen:

Because of our position as suppliers of quality test instruments to you in the FM receiver industry, we have become aware of a common misconception regarding receiver distortion.

We hope you will find this letter to be an aid in clarifying this misconception and thus a contribution to the industry.

## ABOUT DISTORTION

In the usual "minimum distortion" type alignment, the illusion often occurs that the receiver distortion is much lower than it really is. This illusion arises from the fact that the measuring equipment *reads much below the receiver's actual distortion.*

Such a false indication occurs because the equipment is measuring not just one distortion. *It is measuring the receiver distortion combined with the alignment generator distortion.* The alignment process actually adjusts receiver distortion to be as nearly as possible equal and opposite to that of the generator. These two distortions then tend to cancel one another in the measurement.

Therefore, *the alignment process causes receiver distortion to be at least as large as*

*that of the generator* — although of opposite phase.

*These effects can easily cause a receiver capable of 0.1% distortion to end up with more than 1% even though the measuring equipment may read less than 0.1%.*

That's why it's important that alignment generator distortion be low. It's why we have taken great care to keep distortion in the Sound Technology Model 1000A Alignment Generator below 0.1%. It's one reason why the Model 1000A is used by some 30 factories as well as scores of servicing dealers.

And it's why the Model 1000A is the only generator that permits proper alignment of today's quality receivers.

Sincerely,

**S** SOUND TECHNOLOGY  
**T**

*Robert A. Andersen*

Robert A. Andersen, president

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Lawrence A. Maguire, vice-president

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- Please send me more information about
- Your low-distortion alignment generator.
  - Your FM receiver-demonstrating system.
  - Your 50-to-300 ohm Matching Transformer with special 1:1 voltage ratio. 50-216 MHz. \$38.00.

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