



Engineering News



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TECHNICAL LETTER NO. 202

MODIFICATION OF ALTEC 1591A COMPRESSION AMPLIFIER FOR USE AS A LINE AMPLIFIER IN ACOUSTA-VOICING® WORK

Many of you have experienced great difficulty with excessive noise levels when using the ALTEC 1591A Compression Amplifier as a line amplifier following passive loss devices.

The ALTEC Engineering Department closely examined this problem and found the following solution:

When the 1591A is used as designed — as a compressor — it has an additional gain of 14 dB built in to allow the compression. Switching off the compression and using it as a line amplifier results in the 1591A acting as a FULL GAIN unit because it lacks a master gain control. The compression circuit, when activated, behaves essentially as an automatic master gain control. This means the noise level produced by the 1591A when the compressor is deactivated is 14 dB greater than that produced by a 1589A or 1592A with its master gain control in its normal position.

When used as a line amplifier, the gain and apparent noise level of the 1591A must therefore be reduced by 14 dB. To do this, shunt the R21 resistor with a 56-ohm resistor or replace it with a 47-ohm resistor (see 1591A Operating Instructions 42-02-041315-04 attached with this letter).

Your 1591A will now be 14 dB quieter and, in almost every line-amplifier application, it should reduce the noise from the loudspeaker to inaudibility at normal usage levels.

Don Davis

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