Engineering News

ALTEC LANSING

ALTEC DIVISION OF [illegible] LING ALTEC, INC.

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TECHNICAL LETTER NO. 206

1588B GAIN AND OVERLOAD CHARACTERISTICS

The gain and subsequent overload characteristics of the ALTEC 1588B Microphone Preamplifier may be externally controlled by an external resistor. The range of gain obtainable and the resultant overload characteristics are shown in Figures 1 and 2. The difference between these figures is the operating voltage, which has an affect on the overload characteristics. Figure 1 is for a supply voltage of 15V, and Figure 2 is for a supply voltage of 20V. To use the graphs for determination of the external resistance value, either the desired gain may be selected from the left side of the graph or the overload point (in dBm) may be selected from the right side of the graph. A horizontal line is drawn from the selected point to the intersection with the curve. A vertical line from this intersection to the base of the graph gives the resistance value for operation at the selected conditions.

The following example is typical. Assume an input overload level of -6 dBm on the right side of the graph and draw a horizontal line to the intersection of the curve. A line from this point to the base line shows a resistance value of 18K ohms is required. For this value a gain of 20.5 dB is obtained from the 1588B.

The external resistor is connected between pins 2 and 6 of the octal mounting socket. The resistor may be mounted directly on the socket; however, if it is desired to include a switch on the control panel, it is recommended the resistor be placed on the switch and then connected from the switch to the socket by either a twisted pair or a shielded pair. On some ALTEC products, such as the 352B, 1592A, etc., the speech/music switch may be used for this purpose, if speech/music selection is not required.

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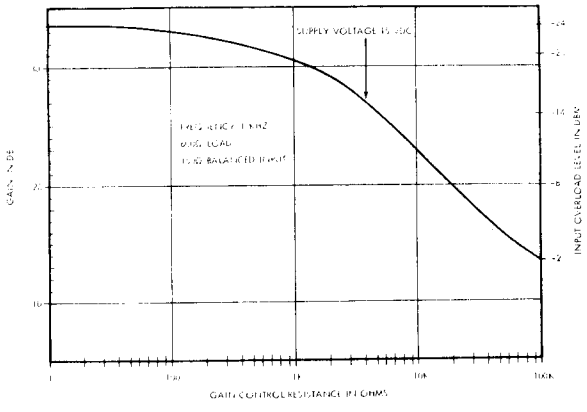

Figure 1. 1588B Input Overload and Gain versus Gain Control Resistance with 15V dc Supply Voltage

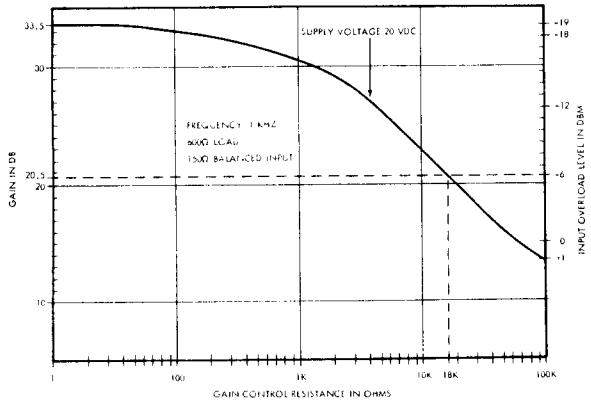

Figure 2. 1588B Input Overload and Gain versus Gain Control Resistance with 20V dc Supply Voltage