
Subject: Re: Cassette Tape Alignment

Posted by [Wayne Parham](#) on Fri, 12 Jul 2019 20:55:33 GMT

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Next is the bias adjustment. There are separate bias adjustments for right (RV221) and left (RV121) channels. Set each so that amplitude is the same at 315Hz and at 10kHz. There are also record level adjustments RV112 for left and RV212 for right which have a slight effect on the bias. They should be set so the output level is 50mV for each channel while simultaneously providing the proper bias. There is some slight interaction between the two, so I find it best to set bias, then record amplitude and then re-examine bias and reset as necessary.

Note that this adjustment optimizes for a particular tape. If you could sample all tapes, you would find some that need bias adjusted far to one side and others that needed bias adjusted far to the other. The goal is to be able to set the internal potentiometers for the center of this range, so that the external bias control knob can be set to provide balanced response with any tape.

The service manual suggests using a tone generator to create a 315Hz and a 10kHz sine for setting the bias. The deck is set to record with the external bias adjustment knob is set to its middle setting and the playback head is monitored. Switch the input signal between 315Hz and 10kHz and adjust the potentiometers on the circuit board to set the amplitude of the output signal matching the levels of the 315Hz sine with the 10kHz sine.

File Attachments

- 1) [Left_Tape_315Hz.png](#), downloaded 621 times
 - 2) [Right_Tape_315Hz.png](#), downloaded 573 times
 - 3) [Left_Tape_10kHz.png](#), downloaded 638 times
 - 4) [Right_Tape_10kHz.png](#), downloaded 614 times
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