

## Technical Bulletin

### No: 714 – Limiter Adjustment Procedure

**Model:** TR-20

**No:** 714

**Subject:** Limiter Adjustment Procedure

**Date:** 03/11/1996

#### **Procedure:**

1. Connect the RF output of the TR-20 to a 50 ohm dummy load.
2. Connect a 1 kHz audio signal generator to the TR-20's audio input.
3. Connect an oscilloscope to the RF dummy load to monitor the RF output waveform.
4. Set the limiter key, on the exciter board, to the limiter in position, turn the limiter bias adjustment (R17) fully clockwise and the limiter output level (R45) fully counter clockwise.
5. Turn the TR-20 on and adjust the power set (R25) for full power output.
6. Set the audio output level of the signal generator to its lowest level and set the TR-20's Audio Level Adjust (R7) to its most sensitive position.
7. Increase the output level of the signal generator until the peak LED just comes on.
8. Adjust the limiter bias (R17) for 100% modulation.
9. Increase the output level of the signal generator while adjusting the limiter output level (R45) to maintain 100% modulation until the RF envelope starts to clip.
10. Decrease the signal generator output level until the peak LED goes off and repeat steps 7, 8, and 9 until RF output is 95-100% modulated when the peak LED lights and is not over modulated or over limited at any input level.



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