

**TL MICROWAVE RADIO
TRANSMITTER TESTS
DEVIATION**

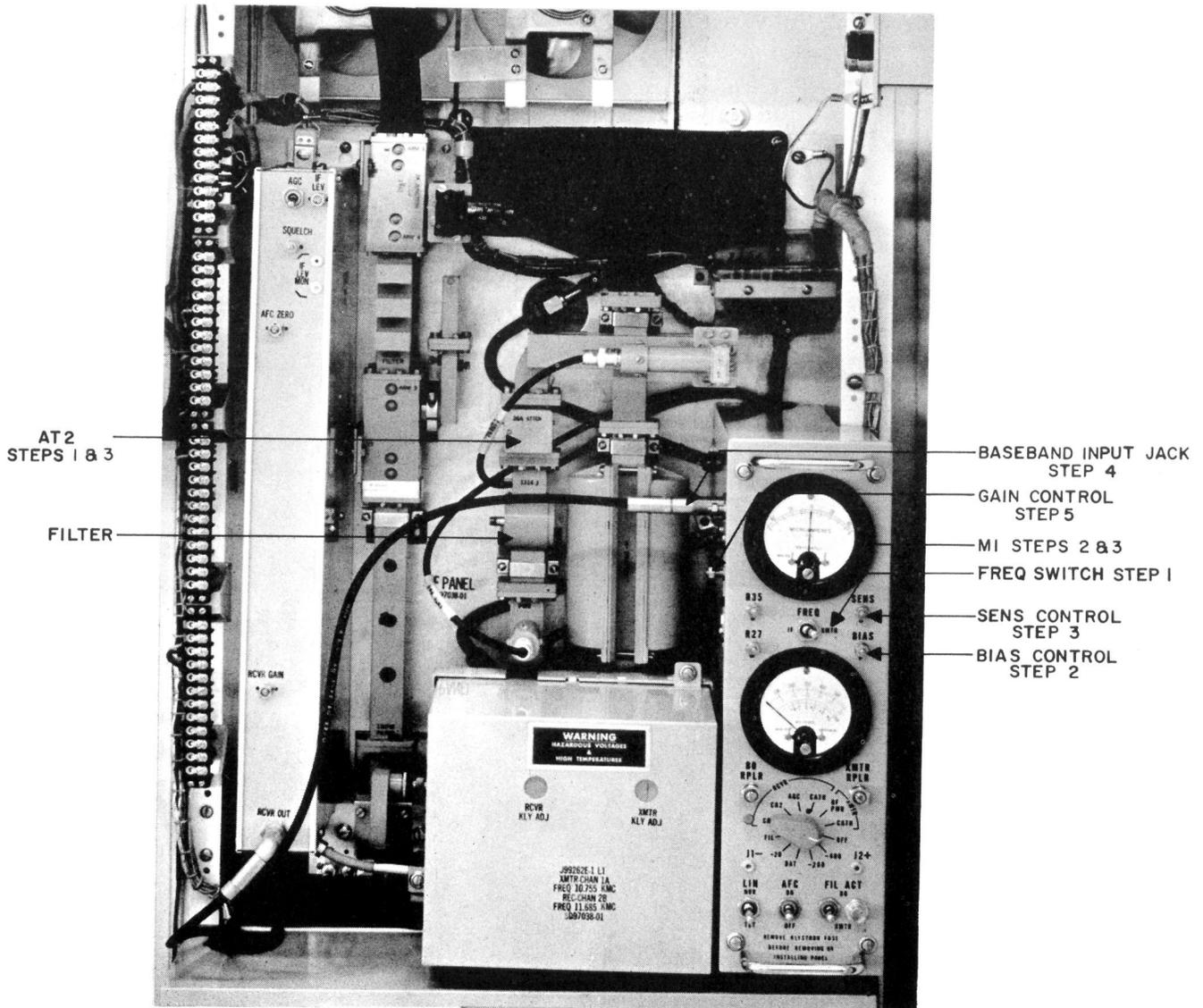
This section describes the method of adjusting transmitter deviation by sending a baseband test signal at an appropriate level into the transmitter baseband amplifier and adjusting the gain for a peak-to-peak transmitter deviation of ± 4.0 mc. The amount of deviation is measured by observing the drop in RF power relative to the unmodulated power when the transmitter output signal is sampled through a narrow bandpass filter. A precalibrated attenuator, which can be switched into the measuring path, is used to provide a reference change in the power indication.

Photograph A illustrates the physical location of the controls and apparatus covered in the following tests.

APPARATUS:

J99262AA TL Portable Test Set

STEP	PROCEDURE
	For this test the transmitter carrier must be unmodulated and its <i>frequency accurately adjusted</i> per Section 409-304-501. Refer to Fig. 1 of Section 409-304-500 for instructions regarding the removal of diversity and nondiversity systems from service.
1	With the FREQ switch on the meter and control panel set to XMTR, push the arm of the 26A waveguide attenuator AT2 down firmly against its stop and hold.
2	Adjust the BIAS control on the front of the meter and control panel for a zero center reading on the upper meter M1.
3	Release the arm of the 26A attenuator and adjust the SENS control for maximum on-scale sensitivity (not more than 50 microamperes).
4	Send -14.0 dbm at 100 kc from the portable test set into the IN jack J101 of the transmitter baseband amplifier.
5	Adjust the transmitter baseband amplifier GAIN control R105 for a zero center reading on the upper meter.
6	Remove the 100-kc input to the transmitter baseband amplifier, and repeat Step 1 to ensure that the upper meter still reads zero.
7	Release the 26A attenuator, repeat Step 4, and check that the upper meter again reads on zero center. The transmitter is now adjusted for a peak-to-peak frequency deviation of ± 4 mc for a sine-wave input of -14.0 dbm or ± 6 mc for a sine-wave input of -10.5 dbm.



Transmitter-Receiver Panel