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## Ranger RCI-2950 Documentation Project

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## **RX Alignment**

**RX Alignment Locations** 

SETTINGS	CONNECTION	ADJUST	ADJUST FOR
AM/FM RF & IF SENSITIVITY: Put mode selector on FM, RF gain fully clockwise, Clarifier at 12 o'clock, frequency at 28.0300 MHz.	Connect an FM signal generator to the antenna connector. Set modulation for ±3 kHz, output level at 0.5uV. Connect a SINAD meter to the external speaker jack, volume control at about 10 o'clock. Connect an oscilloscope with a X10 probe to the Cathode of D12. Set sweep selector for 1uS per division and vertical input selector for 10mV per division.	L8	Adjust for best SINAD reading and least distorted waveform on scope. Do not try tuning this coil for maximum, as this will result in degraded receiver performance.
		L9, L11 L12, L13 L14, L4 L3, L5 and L6	Adjust for maximum on scope. Reduce generator level if necessary, so as not to exceed vertical height on scope.
		L5 L6	Adjust for best SINAD
FM DETECTOR: Mode FM. Set FM RF Generator to 26.965 MHz 0.5uV deviated 3 KHz with 1KHz audio tone. Reduce VOLUME as required.		L7	Adjust for maximum audio output.
SSB IF SENSITIVITY: Put mode selector on LSB.	Signal generator to 28.0290 MHz, modulation off, output level at .5uV. Adjust Clarifier for best SINAD reading. Connect oscilloscope same as above.	L15 L16	Adjust for maximum on scope.
SSB S-METER: Set mode to USB. Increase RF Generator output to 26.966 MHz100uV (-67 dBm) unmodulated. Set Squelch fully counterclockwise.	RF Generator to ANT Jack	VR2	Adjust for "S-9" meter reading.
AM/FM S-METER: Set mode to AM. RF Generator output to 100uV unmodulated. Set Squelch fully counterclockwise.	Same as above	VR1	Adjust for "S-9" meter reading.
AM/FM SQUELCH RANGE: Increase RF Generator output to 10mV.	Same as above	VR3	Adjust to the squelch just closes.

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Set Squelch Co clockwise.	ntrol fully			
SSB SQUELCH Set mode to US	AND THE RESIDENCE OF THE PARTY	Same as above	VR4	Adjust to the squelch just closes.
NOISE BLANK Set radio to 26.9 Set mode to AM Set RF generate 26.965MHz at 1 unmodulated. Set NOISE BLA to "ON".	975MHz I. or output to 000uV	Connect DC Voltmeter to TP1 (Cathode of D2)	L1, L2	Adjust for maximum DC voltage.

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Disclaimer: Although the greatest care has been taken while compiling these documents, we cannot guarantee that the instructions will work on every radio presented.