RECEIVER CIRCUITS

Sensitivity Alignment:

1. Channel selectors to Channel 19 (27.185MHz), AM mode, Squelch Minimum.
2. Set Sig. Gen. at 27.185MHz; 1KHz, 30% modulation - insert signal at antenna connector. (Note: 3mV signal, do not overdrive the radio AGC circuits - just enough for accurate alignment)
3. Adj.: L-204, L-101, L-102, L-103, L-104, L-105, L-106, and L-107 for maximum audio output across an 8 ohm dummy load resistor. (If you don't have one-use radio's speaker in a pinch!)
4. Set Sig. Gen. for 27.185MHz; 1KHz with 1.7KHz deviation (Note: Step 2), Unit to FM mode.
5. Adjust L-501, T-501 for maximum audio output across 8 ohm dummy load.

Squelch Alignment:

1. Sig. Gen. to 27.185MHz; 1KHz 30% modulation - 54db output.
2. Squelch control fully clockwise, radio back to AM mode.
3. Temporarily adjust RV-101 for max audio out, note the level! Re-adjust RV-101 for level decrease of 6DB..

S-Meter adjust:

1. Reset Sig. Gen. for 40db output signal, make no other changes.
2. Adjust RV-103 for meter indication of "s-9".

END OF ALIGNMENT...

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uPD861 PLL - AM CHASSIS (UPDATE)

O.K.; questions are popping up all the time on this one; regarding Freq. going up instead of down. Here it is - 2 different chassis: 2-Crystal with Pins 7 and 8 at Logic-0; 3-Crystal with Pins 7 and 8 at Logic-1.

I only know of two 3-crystal chassis myself, both Realistics: Mdls. TRC-424/431 (if anyone knows of more-pass on info.). These units go UP in frequency when modified 155KHz, DOWN to 25.045MHz. But keeping the power up across more than 1.2MHz bandwidth is another story.

The 2-crystal chassis doesn't go down; but UP -(way up)- 29.5MHz; (That figure is theory-wise!). Haven't worked on any, but VCO circuitry is less cluttered up and should have a wider bandwidth also.

One identical feature in both chassis is: Semi-potted VCO module, and that is where the VCO Varactor is! By removing it and replacing with a "Super Diode" should widen bandwidth - but is not an easy job. Don't recommend doing this unless you just have to have those extra Fo's..

ERRORS - NOT IN SCB!

1. SAMS #189, Page 85; Down Oscillator F_o Output of Q-805 is marked: (11.965MHz) above CT801. Wrong, change to 11.596MHz.

2. PLL DATA BOOK (Pub. by CB City) Pg. 26 - Re: '858' PLL drawing
   Correct Pin 22 to P9, not Vss.
   Pg. 27 - Re: '861' PLL specs.
   'Internal Code Converter' delete ROM.