

Alignment Procedure

Cobra Electronics Corporation
Fixed Mount Marine Transceiver
MR F80

This transceiver is completely aligned at the factory and does not require any adjustments for installation. However it is considered as good practice to verify that none of the adjustments are changed.

Do not adjust any circuitry in this radiotelephone unless you understand the circuit operation and have experience in adjusting radiotelephone. Tampering with the radiotelephone may upset the alignment and lower its performance.

Test Equipment Required:

- Regulated DC power supply, 10 -16V adjustable, 7A
- Audio signal generator, 10Hz~3kHz
- Digital multimeter
- Deviation meter {linear detector}
- Frequency counter, 0~500MHz high impedance
- Oscilloscope
- RF power meter, $\geq 30W$
- High frequency standard generator, >500MHz
- Tracking generator, >500MHz
- Distortion analyzer
- Audio level meter
- T-coupler
- Sinad meter
- Alignment drivers, etc.
- Or a radio communication test set 2955 (MARCONI INSTRUMENTS)

Step	Item	Adjustment	Procedure
1	TX Frequency	VC1	Adjust VC1 to obtain demanded TX frequency. $\pm 200\text{Hz}$
2	TX Power Hi	VR2	Adjust VR2 to obtain demanded TX power $22 \pm 1\text{W}$.
3	TX. Deviation	VR3	<ol style="list-style-type: none"> 1. Inject an audio frequency (AF) -20dBm. 2. Adjust VR3 to obtain maximum TX deviation $\leq 5\text{kHz}$. 3. Check MIC modulation sensitivity, which should be $7 \sim 13\text{ mV}$
4	RX		<ol style="list-style-type: none"> 1. Check RX sensitivity if it is normal. 2. Check RX S/N and Distortion 3. Repeat step 1 to 2 at CH28 and CH3
5	RX	VR1	Adjust VR1 to obtain Best Squelch response.
6	DSC test		Check Modulation index for DSC. Modulation index for DSC. Frequency error (demodulated DSC signal)
7	WX test		Check WX channel have 1050Hz and NOAA alert alarm.
8	PA test		Check PA function
9	Recorder test		Check mic recorder ,Rx recorder and recorded Tx