

Alignment Procedure

Cobra Electronics Corporation
Handheld Marine Transceiver
MR HH325

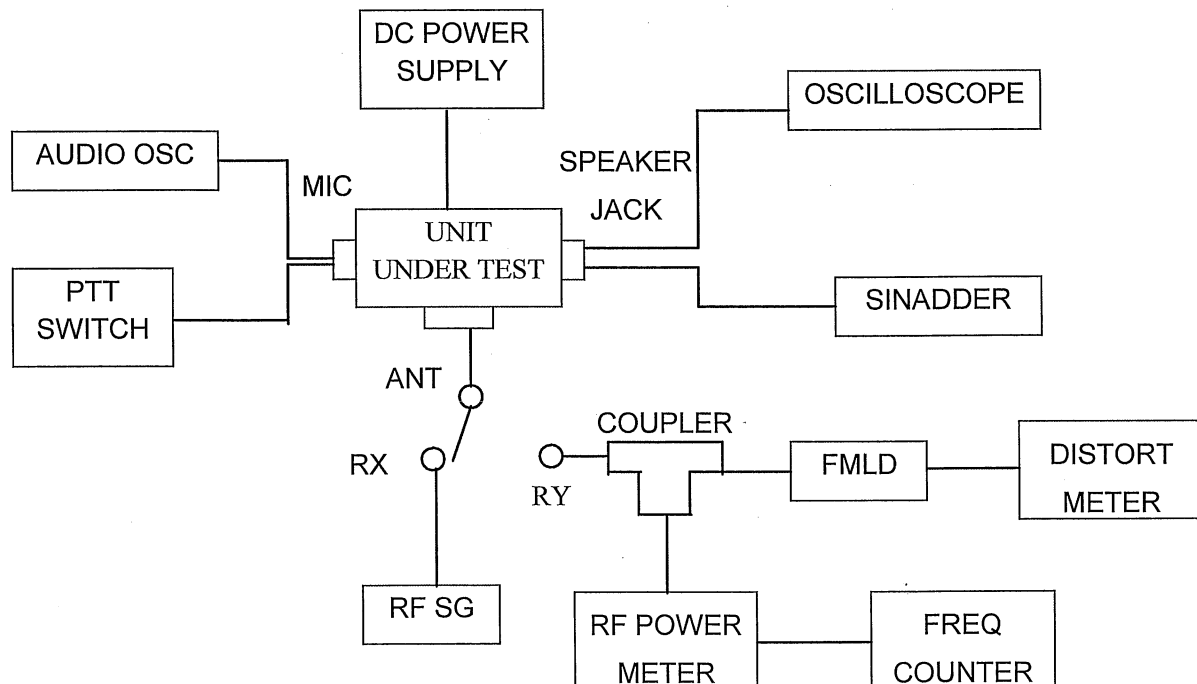
This transceiver is completely aligned at the factory and does not require any adjustments for installation. However it is considered as good practice to verify that none of the adjustments have changed.

The test equipment listed below are used for the test setup shown in Fig. 3.1.
This test setup used either partially or totally during the following adjustments.

A. TEST EQUIPMENT

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|---|---------------------------------|
| 1) DC Power Supply (7.2V DC) | 0 - 15V 3A max. |
| 2) RF Power Meter | 10 W 50 Ohm 100-200 MHz |
| 3) RF Signal Generator | 100-200 MHz, 50 ohm termination |
| 4) FM Linear Detector (FMLD) | 100-200 MHz |
| 5) Frequency Counter | 1-500 MHz |
| 6) Oscilloscope | 20 MHz |
| 7) Distortion Meter | |
| 8) SINADDER (Trademark of Helper Instruments Co.) | |
| 9) Audio Oscillator | |
| 10) Toggle Switch (for use as PTT switch). | |

Fig. 3.1



ADJUSTMENT PROCEDURE

Step	Adjustment	Test Point	Procedure
1	L18 Receive	TP1	1. Connect digital voltmeter to TP1 on RF PCB. 2. Set CH01 . 3. Adjust L18. 4. TP1 voltage 1.2~1.6V DC.
2	L20 Transmit	TP1	1. Connect a digital voltmeter to TP1 on RF PCB. 2. Set CH01 . 3. Adjust L20. 4. TP1 voltage 1.2~1.6V DC.
3	VC1		1. Connect the antenna coupler output to a frequency counter. 2. Set channel to CH01 (156.050 MHz). 3. Adjust VC1 to obtain a frequency reading 156.050 MHz$\pm$200Hz.
4	VR2 Modulation		1. Connect the antenna coupler output to an FM linear detector. 2. Connect Audio Oscillator to Microphone Jack. 3. Set unit to transmit mode. 4. Set audio oscillator output to -23dBm 1 kHz. 5. Adjust VR2 to obtain $\pm$4.5 kHz deviation.
5	T1		1. Connect a VHF signal generator to the antenna connector. 2. Connect a SINADDER to speaker jack. 3. Set signal generator to output 1 kHz with $\pm$3 kHz deviation. 4. At frequency 156.050 MHz, adjust T1 to get maximum voltage and minimum distortion.