

Alignment Procedure

Cobra Electronics Corporation

MR HH425

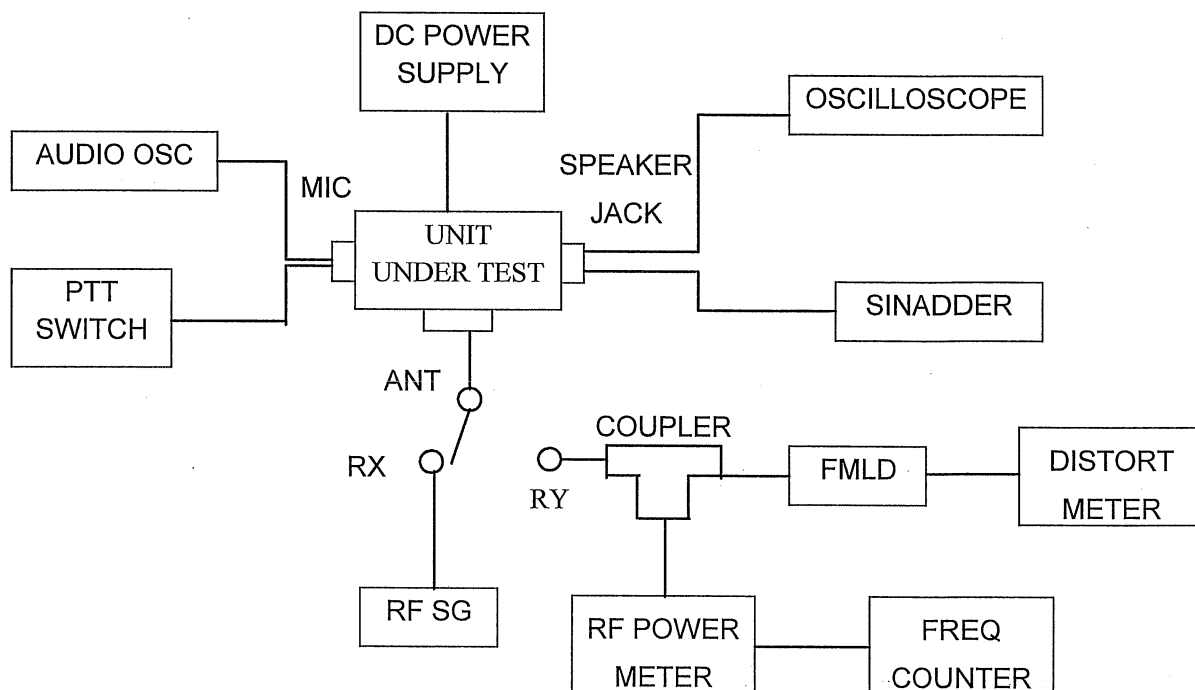
This transceiver is completely aligned at the factory and does not require any adjustments for installation. However it is considered as good practice to verify that none of the adjustments have changed.

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 100-500 MHz |
| 3) RF Signal Generator | 100-500 MHz, 50 ohm termination |
| 4) FM Linear Detector (FMLD) | 100-500 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



Step	Adjustment	Test Point	Procedure
1	L44 Receive VHF	TP1	<ol style="list-style-type: none"> 1. Connect digital voltmeter to TP1 on RF PCB. 2. Set VHF CH01 . 3. Adjust L44. 4. TP1 voltage 1.2~1.6V DC.
2	L46 Transmit VHF	TP1	<ol style="list-style-type: none"> 1. Connect a digital voltmeter to TP1 on RF PCB. 2. Set VHF CH01 . 3. Adjust L46. 4. TP1 voltage 1.2~1.6V DC.
3	L45 Receiver UHF	TP2	<ol style="list-style-type: none"> 1. Connect a digital voltmeter to TP2 on RF PCB. 2. Set UHF CH01 . 3. Adjust L45. 4. TP1 voltage 1.2~1.6V DC.
4	VC1		<ol style="list-style-type: none"> 1. Connect the antenna coupler output to a frequency counter. 2. Set channel to VHF CH01 (156.050 MHz). 3. Adjust VC1 to obtain a frequency reading 156.050 MHz\pm200Hz.
5	VR2 UHF Modulation		<ol style="list-style-type: none"> 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 \pm2.3 kHz deviation.
6	VR3 VHF Modulation		<ol style="list-style-type: none"> 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 VR3 to obtain \pm4.5 kHz deviation.