

TUNE-UP PROCEDURE

This exhibit contains the tune-up procedure as it will appear in the Radio Service Software (RSS) manual.

The following adjustments comprise the total transmitter alignment:

1. Reference Oscillator
2. Transmitter Power Output
3. Transmit Deviation Control
4. Reference Modulation Compensation

Note: All adjustments are factory pre-set and do not require alignment under normal operating conditions. In the event alignment is needed, refer servicing to qualified radio maintenance personnel only.

TEST EQUIPMENT

<u>Description</u>	<u>Recommended model</u>
1. Service Monitor	Motorola R-2001 or equivalent
2. PC with RSS	

TRANSMITTER ALIGNMENT PROCEDURE


RSS Port: A 9-pin D connector is provided on the station control module front panel to allow service personnel to connect a PC loaded with the Radio Service Software (RSS) and perform programming and maintenance tasks via this TIA RS-232 port. The following pages of this exhibit will show the important alignment screens.

EXHIBIT DESCRIPTION

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| 9A | Reference Oscillator Alignment Screen |
| 9B | Transmitter Power Output Alignment Screen |
| 9C | Transmitter Deviation Alignment Screen |
| 9D | Reference Modulation Compensation Alignment Screen |

All adjustments are software controlled and are pre-set at the factory. Certain station operating parameters can be changed via man-machine interface (MMI) commands, within predetermined limits. Examples include transmit / receiver operating frequencies and power level.

TUNE-UP PROCEDURE - Reference Oscillator Alignment Screen


QUANTAR.EXE

MOTOROLA RADIO SERVICE SOFTWARE
BASE STATION PRODUCTS
VER:00.26.01 ALPHA
MAIN:SERVICE:ALIGNMENT:REF OSCILLATOR

Use Up/Dn Arrow Keys
Use PgUp/PgDn Keys
STATION IS KEYED

REFERENCE OSCILLATOR FREQUENCY

MIN

MAX

TRANSMIT FREQUENCY 380.000000 MHz

F1

F2

F3

F4

F5

F6

F7

F8

F9

F10

HELP

AUTO-NET

AUTO-NET

KEYUP

SAVE

DEKEY

EXIT

5 MHz


10 MHz

.

TUNE-UP PROCEDURE - Transmitter Power Output Alignment Screen

MS-DOS QUANTAR.EXE									
MOTOROLA RADIO SERVICE SOFTWARE BASE STATION PRODUCTS UER:00.26.01 ALPHA :ALIGNMENT:POWER OUT					Please Enter Actual Power Valid Range: 0.01 ... 500.00 Watts STATION IS KEYED				
POWER OUT									
Rated Power Out					110.00 WATTS				
Power Read on Wattmeter					99.00 WATTS				
TRANSMIT FREQUENCY: 380.000000 MHz									
1> KEYUP the Station. 2> Enter Power Read on the Wattmeter. 3> Press the ADJUST Function Key and Wait for Station Response. 4> If the station is at desired Power, press the Save Function Key. 5> If the station is not at desired Power, Repeat steps 2 and 3.									
Note: If a PA Failure occurs during adjustment, press the PA INIT Function Key to set the PA to an initial value. Then restart the alignment process.									
F1 HELP	F2	F3	F4 PA INIT	F5	F6 KEYUP	F7 ADJUST	F8 SAVE	F9 DEKEY	F10 EXIT

TUNE-UP PROCEDURE - Transmitter Deviation Alignment Screen


QUANTAR.EXE

MOTOROLA RADIO SERVICE SOFTWARE
BASE STATION PRODUCTS
VER:00.26.01 ALPHA
MAIN:SERVICE:ALIGNMENT:TX DEV GAIN ADJ

Enter Tx Freq 1 Deviation In kHz
Range Is 1.820 - 10.000 kHz
Station Keyed On 1st Frequency

TX DEVIATION GAIN ADJUSTMENT

1st Frequency Deviation 5.280 kHz
2nd Frequency Deviation 5.320 kHz
3rd Frequency Deviation 6.240 kHz
4th Frequency Deviation 6.600 kHz
Current Frequency 380.025000 MHz

F1

F2

F3

F4

F5

F6

F7

F8

F9

F10

HELP

FREQ 1
KEYUP

FREQ 2
KEYUP

FREQ 3
KEYUP

FREQ 4
KEYUP

SAVE

DEKEY

EXIT

TUNE-UP PROCEDURE - Reference Modulation Compensation Alignment Screen

