

### **TUNE-UP PROCEDURE**

This exhibit contains the tune-up procedure as it will appear in the Configuration Service Software (CSS) 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**

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

### **TRANSMITTER ALIGNMENT PROCEDURE**

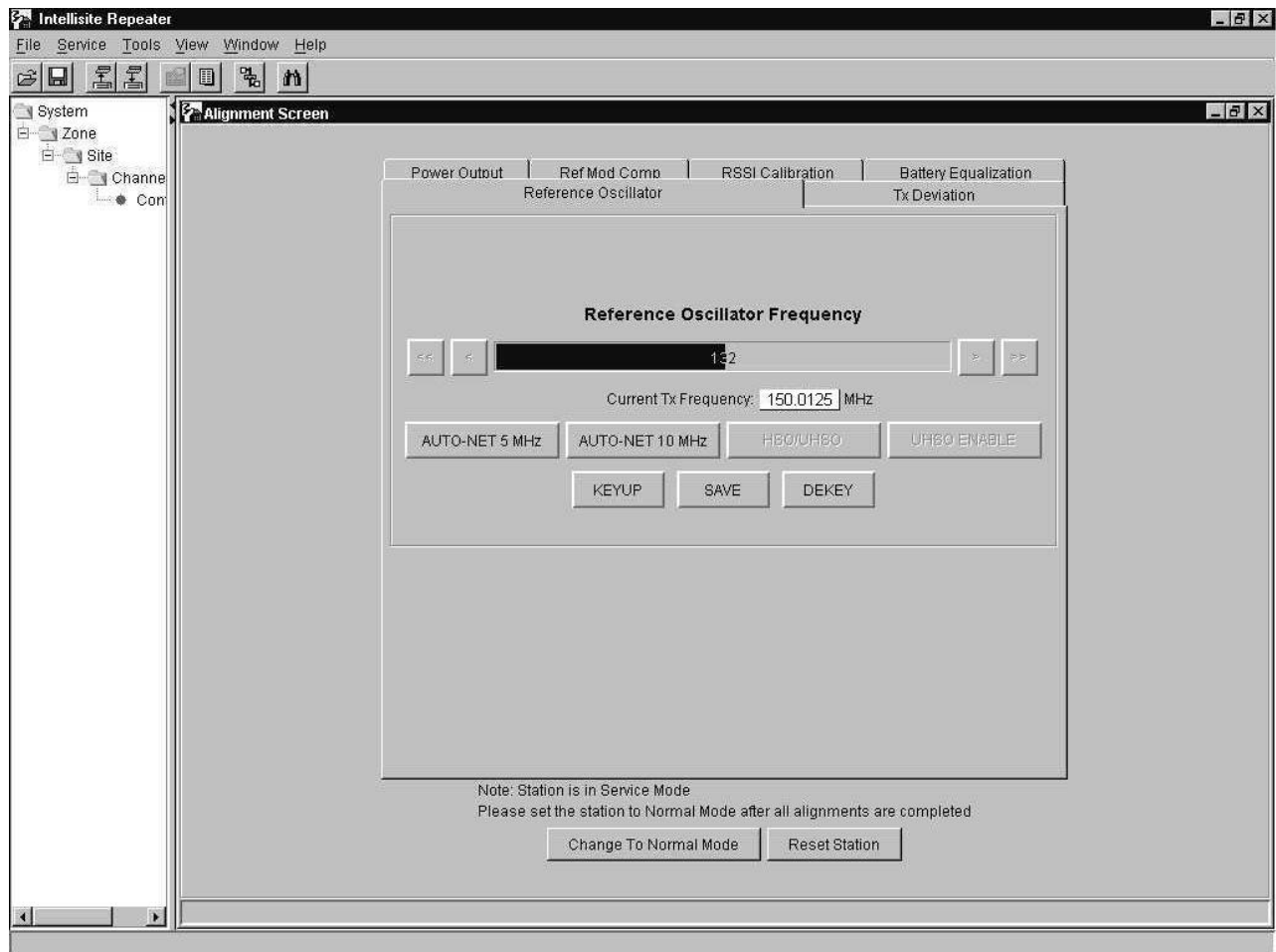
CSS/RSS Port: A 9-pin D connector is provided on the station control module front panel to allow service personnel to connect a PC loaded with the Configuration Service Software (CSS) and perform programming and maintenance tasks via this TIA RS-232 port. The following pages of this exhibit will show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

### **EXHIBIT DESCRIPTION**

- |    |  |
|----|--|
| 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**



**TUNE-UP PROCEDURE - Transmitter Power Output Alignment Screen**

**Intellisite Repeater**

File Service Tools View Window Help

System  
Zone  
Site  
Channel  
Com

**Alignment Screen**

Reference Oscillator	Tx Deviation
Power Output	Battery Equalization
Ref Mod Comp	
RSSI Calibration	

Rated Power Out: 25 Watts  
Power Read on Wattmeter: 15.8 Watts  
Transmit Frequency: 150.0125 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.

Station Is Currently Dekeyed

PA INIT Keyup ADJUST Save Dekey

Note: Station is in Service Mode  
Please set the station to Normal Mode after all alignments are completed

Change To Normal Mode Reset Station

**TUNE-UP PROCEDURE - Transmitter Deviation Alignment Screen**

**Intellisite Repeater**

File Service Tools View Window Help

System  
Zone  
Site  
Channel  
Configuration

**Alignment Screen**

Power Output | Ref Mod Comp | RSSI Calibration | Battery Equalization

Reference Oscillator Tx Deviation

Frequency 1  
Deviation (kHz) 5.31 Key On Freq1  
Current Deviation 5.31

Frequency 2  
Deviation (kHz) 5.18 Key On Freq2  
Current Deviation 5.18

Frequency 3  
Deviation (kHz) 6.46 Key On Freq3  
Current Deviation 6.46

Frequency 4  
Deviation (kHz) 6.6 Key On Freq4  
Current Deviation 6.6

Current Frequency (MHz) 150  
Key On Status Keyed Up On Frequency 1

Save Dekey

Note: Station is in Service Mode  
Please set the station to Normal Mode after all alignments are completed

Change To Normal Mode Reset Station

Click to Keyup the station using Frequency 1

**TUNE-UP PROCEDURE - Reference Modulation Compensation Alignment Screen**

