

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

Description	Recommended model
1. Service Monitor	Motorola R-2001 or equivalent
2. PC with CSS	

TRANSMITTER ALIGNMENT PROCEDURE

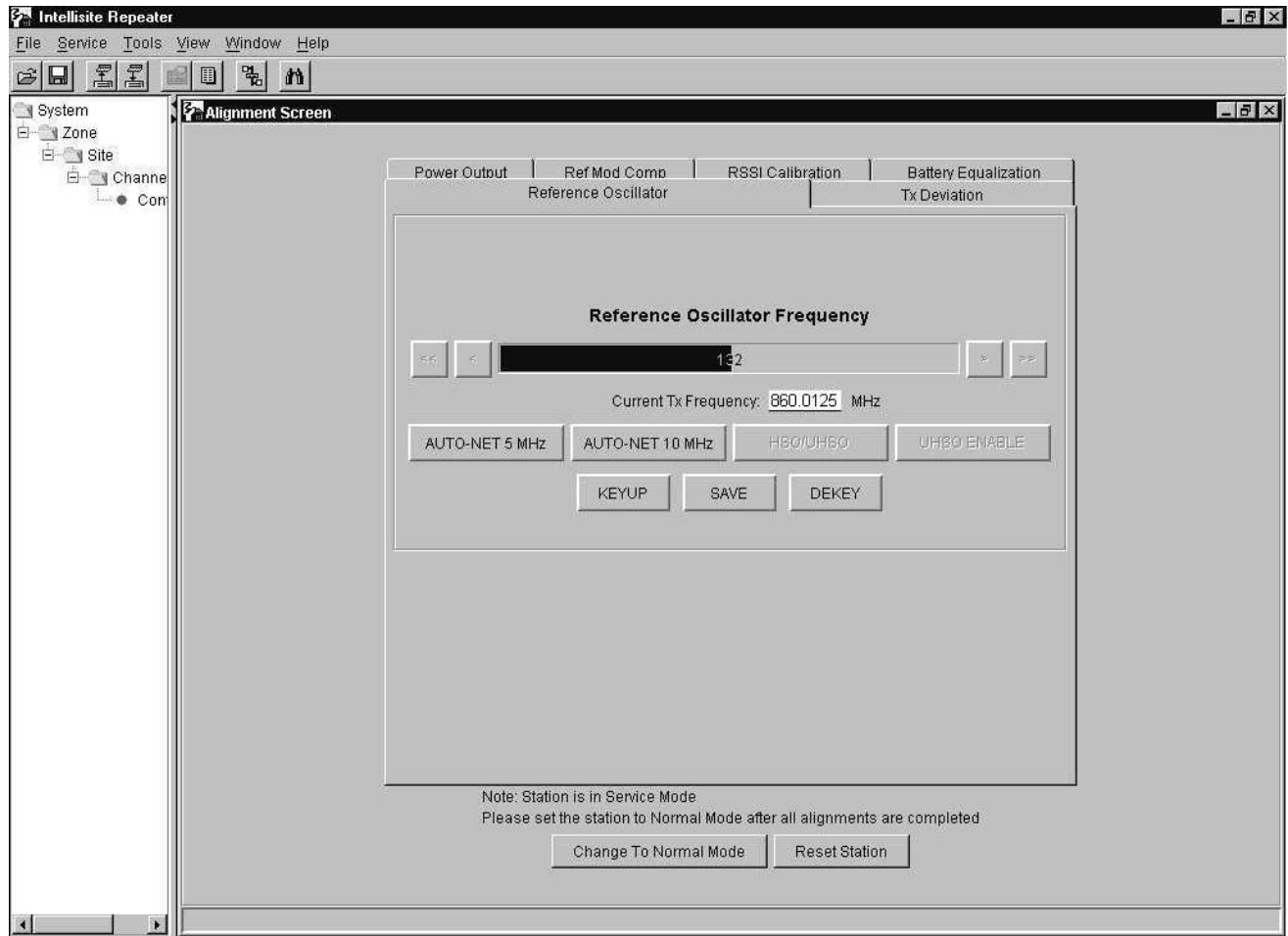
CSS/RSS Port: A 9-pin D connector is provided on the station control module front panel to allow service personnel to connect a PC loaded with the Configuration Service Software (CSS) and perform programming and maintenance tasks via this TIA RS-232 port. The following pages of this exhibit will show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

EXHIBIT DESCRIPTION

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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



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 | Ref Mod Comp | RSSI Calibration | Battery Equalization

Rated Power Out: 20 Watts
Power Read on Wattmeter: 15.5 Watts
Transmit Frequency: 860.0125 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

The screenshot displays the 'Intellisis Repeater' software interface. On the left, a tree view shows the hierarchy: System > Zone > Site > Channel > Configuration. The main window is titled 'Alignment Screen' and contains several tabs: Power Output, Ref Mod Comp, RSSI Calibration, and Battery Equalization. The 'Ref Mod Comp' tab is active, showing a sub-tab for 'Reference Oscillator' and 'Tx Deviation'. The 'Tx Deviation' sub-tab is selected, displaying settings for four frequencies. Each frequency has a 'Deviation (kHz)' input field, a 'Current Deviation' readout, and a 'Key On' button. The 'Current Frequency (MHz)' is set to 860, and the 'Key On Status' is 'Keyed Up On Frequency 1'. At the bottom, there are 'Save' and 'Dekey' buttons. A note at the bottom states: 'Note: Station is in Service Mode. Please set the station to Normal Mode after all alignments are completed.' Below the note are 'Change To Normal Mode' and 'Reset Station' buttons. A status bar at the very bottom reads: 'Click to Keyup the station using Frequency 1'.

Frequency	Deviation (kHz)	Current Deviation	Key On Button
Frequency 1	5.31	5.31	Key On Freq1
Frequency 2	5.18	5.18	Key On Freq2
Frequency 3	6.46	6.46	Key On Freq3
Frequency 4	6.6	6.6	Key On Freq4

Current Frequency (MHz): 860
Key On Status: Keyed Up On Frequency 1

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

Buttons: Save, Dekey, Change To Normal Mode, Reset Station

Status Bar: Click to Keyup the station using Frequency 1

TUNE-UP PROCEDURE - Reference Modulation Compensation Alignment Screen