BK RADIO
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Service Bulletin

BKSB-1014
Issue Date 09-26-02

Issue: Poor TX or RX audio quality, TX drop out or unit lock-up of GBH Base Station.

Affected Models: GBH-01 desktop base station with LZA 2027 Tone Termination Panel.

Recommended Action: Perform the tuning procedures outlined in this bulletin only if you are experiencing the listed symptoms.

Parts and Equipment Requirements:

Communication Test Set
Volt Meter, AC
Tone Remote

Procedure:

If the GBH Base station with a LZA2027 Tone termination Panel is exhibiting poor TX or RX audio quality, TX dropping out during a transmission from the remote, or the unit locking-up (becoming inoperative), then perform the following checks and adjustments:

1. **Check jumper settings on Tone Termination Panel**
   Make sure the following jumpers are set as indicated:
   - JP2 set at "A-B" location
   - JP5 set at "A-B" location
   - JP8 Removed

2. **Check programming of the Tone Termination Panel**
   Under "Panel Options" menu of the Tone Program application, make sure only "Single Tones" is selected. If changes are required, then make the changes and write the changes to the panel.

3. **Tone Panel Alignment** - Check the alignment and adjust as necessary.

(Procedure continued on page 2.)

Test Equipment & Set-Up

- Communication Test Set
- Volt Meter, AC
- Tone Remote

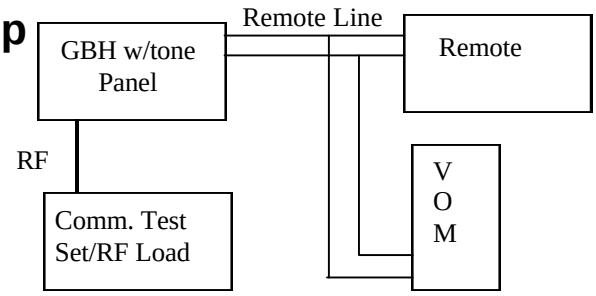

Figure 1

3.1. Receiver Audio Level Adjustment - (refer to Figure 2 for parts placement)
While injecting a standard input signal from your RF generator (-60dBm RF, 3kHz wideband mode or 1.5 kHz narrowband mode deviation of 1kHz tone), adjust R92 until 0.24Vrms (–10dBm) is measured on the remote line.

3.2. Transmitter Hold Tone Adjustment
While transmitting using the remote handset, verify that the "hold tone" from the remote is approximately 0.08Vrms (-20dBm) on the remote line. If not, readjust the remote per the manufacturer's instructions.

3.3. 2175 Hz Notch Filter Adjustment
While transmitting using the remote handset and monitoring the deviation meter of the Communication monitor, adjust R52 and R53 for minimum level on the modulation meter. To eliminate the potential of the microphone picking-up background noise during this adjustment, cover the microphone during transmission.

3.4. Transmitter Audio Level Adjustment
While transmitting and modulating into the remote handset, adjust R90 until the deviation starts to limit just above 4kHz. Do not exceed 5kHz.

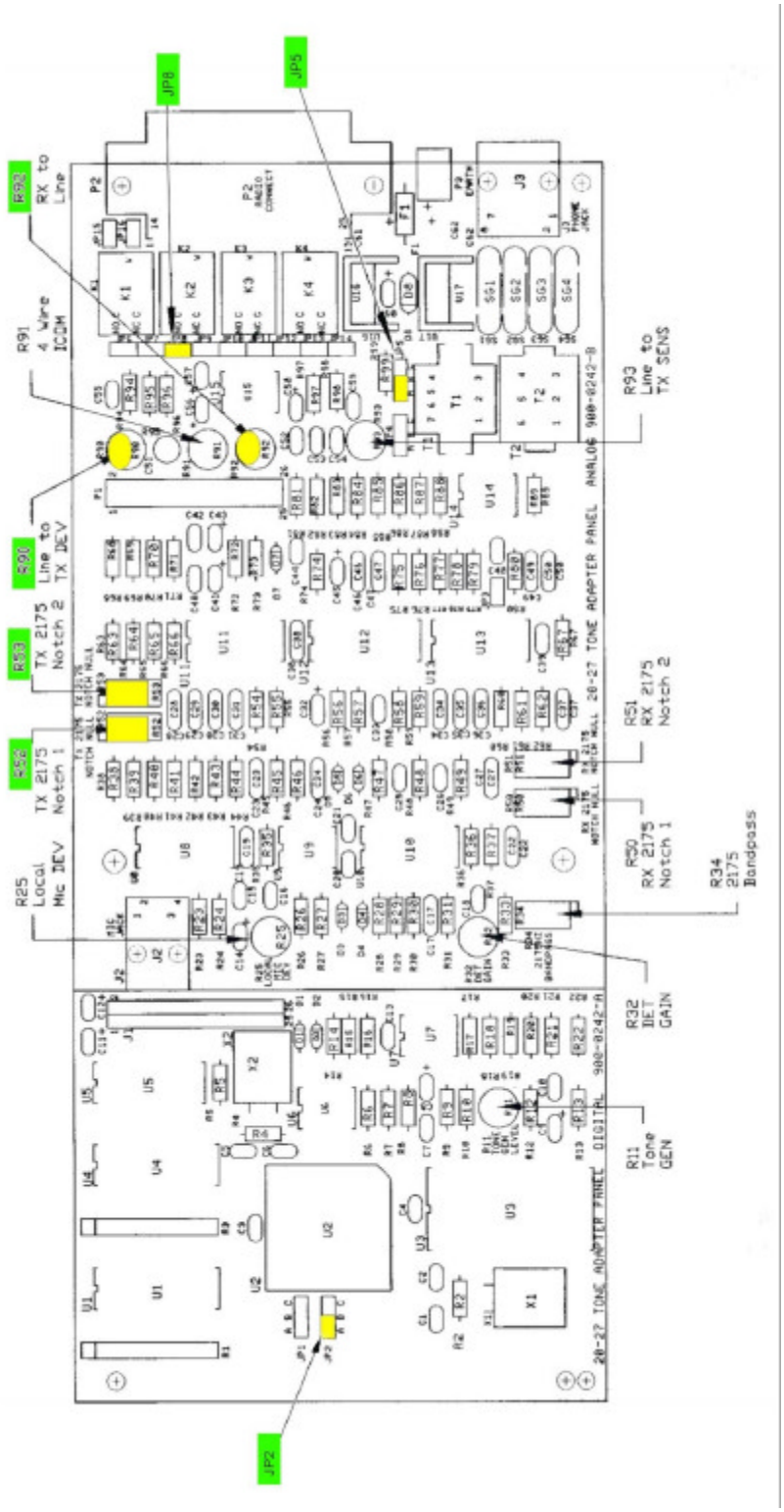
JP8
JP5
R92
RX to Line
R91
4 Wire ICOM
R90
Line to TX DEV
R53
TX 2175 Notch 2
R54
TX 2175 Notch 1
R25
Local Mic DEV
R93
Line to TX SENS
R51
RX 2175 Notch 2
R50
RX 2175 Notch 1
R34
2175 Bandpass
R32
DET GAIN
R11
Tone GEN
20-27 TONE ADAPTER PANEL ANALOG 900-0242-B
20-27 TONE ADAPTER PANEL DIGITAL 900-0242-A
JP2

Figure 2