KENWOOD Service Bulletin

ASB-1060

Amateur Radio Division

Subject: TM-733A PL Tone Distortion **Date:** December 5,

2006

Symptom:

Transmitted PL Tones at the receiving station have a relatively high level of distortion. This is easily seen when the incoming signal is viewed on an oscilliscope.

Countermeasure:

Change the value of the "Pull-up" resistors in the PL tone encoder circuit as shown in the accompanying chart and illustration. This reduces the distortion from around 9% to approximately 4%.

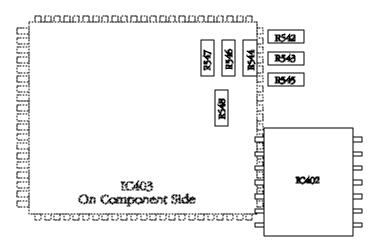
Parts Required:

Qty	Description	Old Kenwood Part No.	New Kenwoood Part No.
1	R542 (from 1.8K to 2.7K)	RK73FB2A182J	RK73FB2A272J
1	R543 (from 1.8K to 3.3K)	RK73FB2A182J	RK73FB2A332J
1	R544 (from 1.8K to 4.7K)	RK73FB2A182J	RK73FB2A472J
1	R545 (from 1.8K to 6.8K)	RK73FB2A182J	RK73FB2A682J
1	R546 (from 1.8K to 10K)	RK73FB2A182J	RK73FB2A103J
1	R547 (from 1.8K to 10K)	RK73FB2A182J	RK73FB2A103J
1	R548 (from 1.8K to 10K)	RK73FB2A182J	RK73FB2A103J

Procedure:

- 1. Disconnect the power cable, microphone and antenna's, etc.
- 2. Detach the front panel and set it aside.
- 3. Remove the top and bottom covers.
- 4. Remove the speaker and speaker mounting bracket
- 5. Disengage the plastic front panel from the main chassis.
- 6. Carefully disconnect the two ribbon cables from the TX/RX unit C/4.
- 7. Remove the two Phillips head screws that secure the TX/RX unit to the chassis.

- 8. Turn the circuit board over and replace the resistors using the parts list and illustration as a guide.
- 9. Reverse steps 1-7 for reassembly.



TX-RX Unit (X57-4360-00) Foil Side View

Caution: This modification requires advanced surface mount soldering equipment that is rated for CMOS circuits. It also requires familiarity with advanced surface mount soldering techniques. If you do not have the proper equipment or knowledge do not attempt this modification yourself. Seek qualified assistance from your closest Kenwood Service Center (Long Beach, CA, or Virginia Beach, VA).