

PSB # 733 APC: 388/398/632/684 EXPIRES: JUNE 30,1995

Subject: TRUNKED TONE REMOTE CONTROL TDATA DISTORTION.

MODELS AFFECTED: ALL TRUNKED MSF 5000 WITH TRN7754A TTRC LOGIC BOARD.

MODULE AFFECTED: TRN7754A TTRC LOGIC BOARD.

The following symptoms have been observed when a station is equipped with the above-mentioned board.

1. A low speed num-num type of noise can be heard in certain subscriber units listening to an MSF station with the TRN7754A board.
2. Clipping or distortion of TDATA, especially on the negative half of the waveform. This can be observed on a Motorola Service Monitor.
3. High/Uneven TDATA deviation, (positive cycle high while negative cycle is low or visa versa). Observable on a Motorola Service Monitor.

The cause of the problems is diode pair CR4306 on the TDATA line used to provide protection against transients. The diode going from the TDATA line to ground is forward biased when TDATA goes negative, which causes the negative cycle of TDATA to be clipped.

THE SOLUTION IS TO SIMPLY REMOVE THE DIODE PAIR AND RECHECK THE TDATA DEVIATION AFTERWARDS FOR THE PROPER LEVEL.

NOTE: Prior TTRC boards (TLN3114A & B) did not contain this diode pair.

ALL BOARDS SHIPPED PRIOR TO JUNE 1994 ARE SUSPECT. BOARDS SHIPPED AFTER MAY 31,1994 WILL NOT HAVE THIS PROBLEM.