Professional Audio Products Technical Bulletin 89–039

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Model: APR-5002/5003

Serial No: 20,001 AND HIGHER

Subject: REDUCTION OF MASTER ERASE SIGNAL DISTORTION

DESCRIPTION

The erase transient at the end of a recorded segment may be too large in APR-5002/5003 units that contain an MST Assembly with part number A-7850-376-B or A-7850-377-B. To correct this problem, perform the modifications described in the following procedure.

APR-5002/5003 units with serial numbers 20,001 through 20,701 that have not been modified to accept ½ inch headblocks have lower master bias and erase levels and will not have this problem.

PARTS REQUIRED

Part No.	Description	Qty.
1-162-672-11	Cap, Ceramic, 27pF, 50V	1
	OR	
T-9411-279-1	Cap, Ceramic, 27pF, 100v	1

MODIFICATION AND ALIGNMENT PROCEDURE MST BOARD (PN A-7850-376-B/377-B) Solder Side (See Figures 1 and 2.)

- 1. Verify that master bias level is 15Vpp.
- 2. Perform record alignments for both channels.
- 3. Load a bulk erased tape into recorder.
- 4. Remove MST Board from unit.
- 5. Solder a 27pF capacitor in parallel with C66.
- 6. Replace MST Board into unit.
- 7. Remove CH1 CNL Board from unit.
- 8. Remove heat sink plate from board.
- 9. Replace CNL Board on card extender.

- 10. Power up unit.
- 11. Verify that the bias level at CN-30B of CNL Board is 15 Vpp. If necessary adjust RV1 on MST Board.
- 12. Connect oscilloscope CH-A input to CH-1 Line Out.
- 13. Connect oscilloscope CH–B input and EXT trigger input to IC23–8.
- Set oscilloscope sweep to 5ms/div and Volts/div for 50mv/div. Select NORMAL and EXT trigger source.
- 15. Alternately select PLAY then RECORD modes at 1 second intervals.

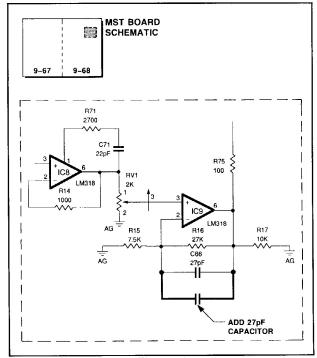


Figure 1

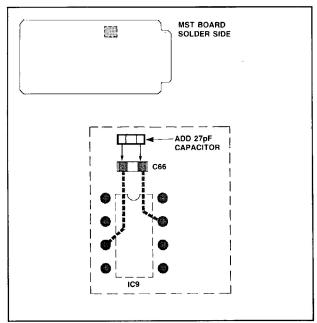


Figure 2

- 16. Adjust oscilloscope trigger level until *punch out* transient is easily detectable. See Figure 3.
- 17. Verify that transient is 100 mVpp or less. If specification is not met, contact your local Sony Regional Service Center.
- 18. Turn off power.
- Replace heat sink on CNL Board and place board back into unit. Repeat steps 7 through 10 and 12 through 19 for CH-2 CNL Board.

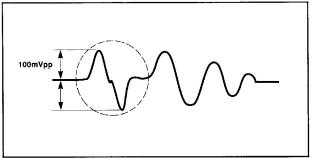


Figure 3