

Product: A/V Tuner Preamplifier
Hardware Technical Bulletin: T163-H2004-03

Date: August 24/04 **Subject:** Residual Noise

Note: Implemented in production from Serial number :R47T1630186

Previous T.B.'s required: Please refer to the following software bulletin to perform the software upgrade procedure.

YES T163-S2004-01 Software Upgrade Procedure
 NO

DESCRIPTION: At high volume setting with no signal on an unterminated analogue input, there maybe some audible residual hum noise and whistling sound coming from one or more channels.

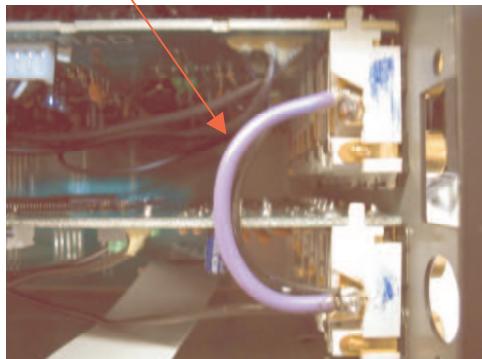
REASON: The residual noise is coming from power supply ground and DSP ground. The whistle noise is coming from the DSP board.

SOLUTION: Remove the DSP board and order the replacement DSP board from our spares department. This board will require version 2.03 software or later, check for current version on our service website, <http://nadelectronics.com/svc/>. Also see above for software bulletin for the software upgrade procedure. Order the part number for the DSP board using this number, 80-0907630-65-00 from our spares department. This board has Dolby Pro LogicIIx installed. **NOTE:** The HDCD decoder is replaced by the Dolby PLIIx decoder.

Ground Changes

1. Change the cable between J617 on Pre-out board and Multi-channel RCA from AWG22 to AWG18.

Figure1



Note: If this is not present on the unit, add an AWG18 wire between the Pre-out RCA and Multi-channel RCA jacks as shown.

Contact:

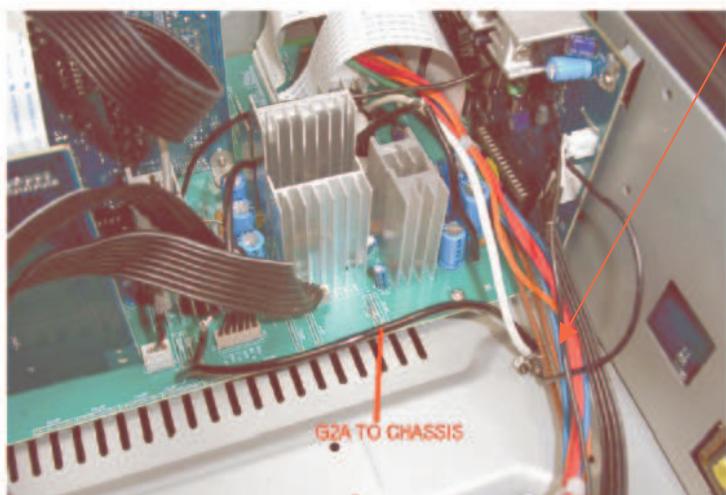
NAD Electronics International
633 Granite Court
Pickering, ON Canada L1K 3K1
Voice: 905-831-0799 FAX 905-837-6357
www.nadelectronics.com

Product: A/V Tuner Preamplifier
Hardware Technical Bulletin: T163-H2004-03

Ground Changes

2. The jumper wire between G2A on MAIN board and G2B on AUDIO IN board , remove the end connected to G2B on the AUDIO IN board and connect this end to the chassis GROUND LUG. See figure2.

Figure 2



3. For J705B and J704B on AUDIO PCB , cut all the AGND pins. That is pins 4,5,7 and 9 .on both J704B and J705B. See arrows in figure 3. **NOTE:** We suggest using the following slim line side cutters to allow for easy cutting of pins.Consult your local supplier. See Figure 3A.

Figure 3

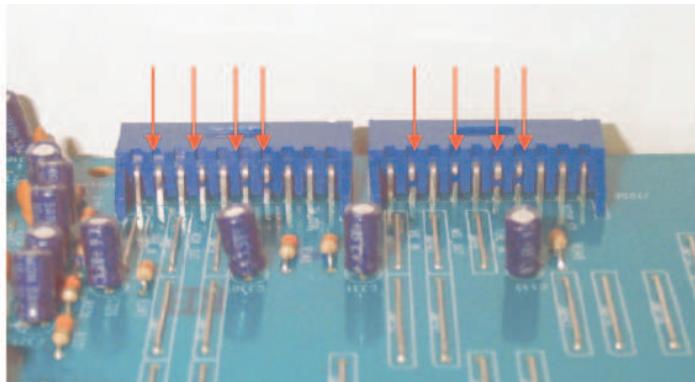


Figure 3A

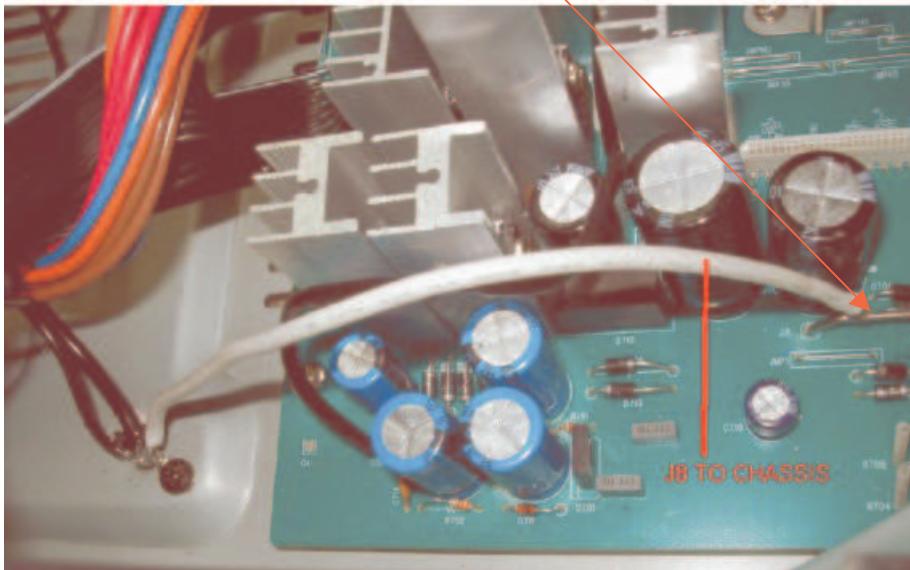


Product: A/V Tuner Preamplifier
Hardware Technical Bulletin: T163-H2004-03

Ground Changes

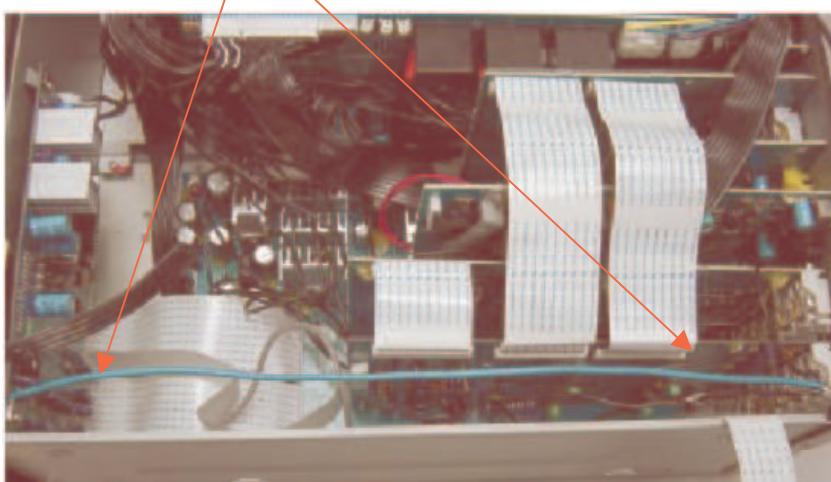
4. Add a jumper wire between J8(copper bar) on main board and chassis. See figure 4.

Figure 4



5. Install an AWG18 wire from the DSP board to the MULTI-CH. RCA connector ground. See Figure 5

Figure 5



Product: A/V Tuner Preamplifier
Hardware Technical Bulletin: T163-H2004-03

DSP changes

2. When installing the new DSP board perform the following. Float the DSP AGND (including the grounding bracket or remove it) from the chassis using an insulated washer. See figure 6 ,7 and 8.

Figure 6 New DSP board (indicated by yellow dot)

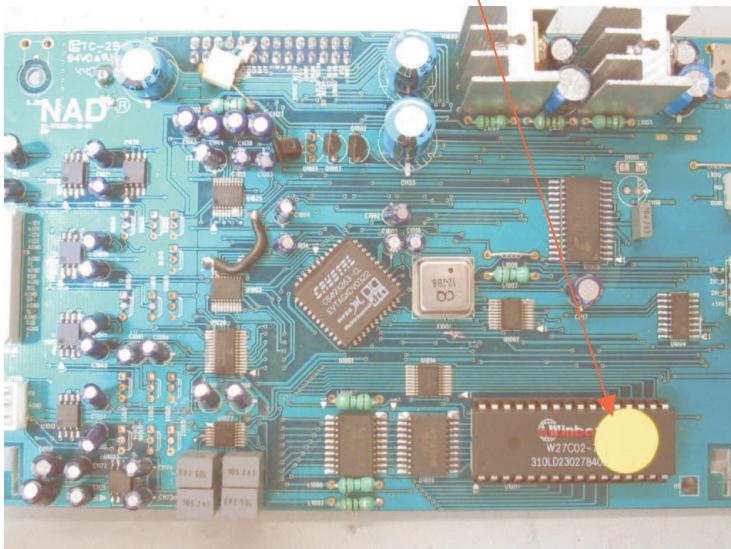
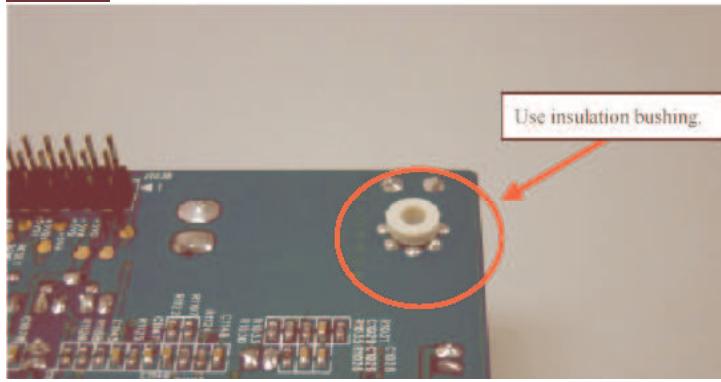


Figure 7



Contact:

NAD Electronics International
633 Granite Court
Pickering, ON Canada L1K 3K1
Voice: 905-831-0799 FAX 905-837-6357
www.nadelectronics.com

**Product: A/V Tuner Preamplifier
Hardware Technical Bulletin: T163-H2004-03**

3. Mount the front panel ground cable to the nearest front panel screw as shown in figure 8.

Figure 8



Contact:

**NAD Electronics International
633 Granite Court
Pickering, ON Canada L1K 3K1
Voice: 905-831-0799 FAX 905-837-6357
www.nadelectronics.com**