harman/kardon

Service Bulletin

Service bulletin # H/K9708   Dec. 1997

Warranty labor rate: MINOR repair

To: All harman/kardon Service Centers

Models: Signature 2.0 Processor/Tuner

Subject: Complaints related to version 2.0 - 2.3 Software

In the event you receive a Signature 2.0 with one or more of the symptoms listed below, upgrade the software to revision 2.4. Page 2 of this bulletin provides replacement instructions for IC U305. Confirmation: Immediately after Power ON, the displays indicates the software revision. If the display indicates a Rev number less than 2.4 (i.e. rev. 2.0 or 2.3) then replace IC U305.
Note: Internally, IC U305 will be marked with a label reading 1.0 (A misprint – it's actually 2.0), 2.0 or 2.3.

SYMPTOMS APPLICABLE TO VERSION 2.0 ONLY:

- When a mode other than Stereo is selected, and the system is muted, adjusting the volume will not UNMUTE the system.
- "VOL" text erroneously continues to be displayed when direct tuner frequency access is used.
- Dolby Digital Mono is erroneously selectable from the front panel buttons when an analog source is selected.
- Display flashes source/volume information when items are changed in the tuner menu.
- When a preset is selected from the tuner menu, the manual RDS items are enabled/disabled incorrectly based on the band of the selected preset (i.e. AM stations shouldn't get manual RDS ID and Type).
- When switching between 2 inputs in stereo mode, one analog and the other digital, the sound is muted erroneously (however, changing modes will seem to restore the sound).
- Remote Seek Up and Seek Down buttons do not work in tuner menu for frequency selection.
- There is an erroneous level boost when switching into 6-ch direct mode.
- When switching from Stereo mode to 6-ch direct mode, the Center and Surround speakers remain muted, as though still in Stereo.
- Tuning in Long Wave in European setup is in 9kHz increments, as opposed to the correct 1kHz increments; not North America.
- When exiting the 6-Ch direct Audio input, the mode erroneously stays in 6-Ch Direct mode. (i.e. when going from 6-Ch Direct input to Analog #1 input, the mode stays in 6-Ch Direct…which is wrong. Note the difference between Audio input and mode).
- In the Speaker Setup menu, when switching selected speakers from on to off, or vice versa, those speaker outputs are not immediately muted (i.e. sound continues to come from the Center speaker, even though the user just changed the menu item to read "Center: None".)
- OSD timeout value allows a value of 00 which never times out.
- When selecting a source, the unit may not select the correct input level value.
- "Sensitive" remote button problem when cycling through the sources/modes from the menuing system. (e.g. one button press results in two value changes; hit the button once and you jump from Analog 2 to Analog 4).
- "High" indicator (signal level input) on the display from some CD players, some tracks, with subsequent distortion.

SYMPTOMS APPLICABLE TO VERSION 2.3 ONLY:

- Random characters are generated at the bottom-right of the video output.
- Center channel "Boost" function doesn't boost the Center channel sound level.
- "Sensitive" remote button problem when cycling through the Center/Surround effects. (e.g. one button press results in two value changes).

Model	Serial number 120V	Serial number 230V	Status	Action
Signature 2.0	GT0003-01001 to GT0003-02162	GT0006-01001 to GT0006-01157	Has early software version 2.0 or 2.3	Replace IC U305 with version 2.4 h/k part# A003-0020-4
Signature 2.0	GT0003-02163 and above	GT0006-01158 and above	Factory Installed version 2.4	NONE REQUIRED

*S*IGNATURE *series* 2.0
Software (IC U305) Replacement Instructions

Before replacing the software in the SIGNATURE 2.0 Processor, confirm the Software revision in the unit. To check, plug the unit in and turn it ON. The display will read "Ver __.__". Make sure the version you are replacing is a higher number than what's on the display.

CAUTION: IC U305 EPROM IS AN ELECTROSTATICALLY SENSITIVE DEVICE AND CAN BE DAMAGED BY CARELESS HANDLING; YOU MUST FOLLOW PROPER STATIC CONTROL PROCEDURES TO PREVENT DAMAGE TO THE DEVICE.

1. Confirm the unit is unplugged and OFF.
2. Remove the 7 top cover screws. There are 2 on each side and 3 on the upper portion of the back panel.
3. Remove the top cover; slide it towards the back of the unit about an inch and lift it off from the back first.
4. Locate the video board directly behind the video jacks. Unplug the ribbon cable marked "CONTROL" on the circuit board under the ribbon. Unplug the green power supply cable marked "PWR"; apply only upward force to remove it.
5. Locate and remove the (4) screws and (1) nut holding the video board on. Two screws are located between the "COMPOSITE VIDEO" RCA jacks on the back panel. Two screws, with washers, are located on either lower side of the "S VIDEO" jacks on the back panel. The (1) nut is located on the inside corner of the printed circuit board next to capacitor C504.
6. Remove the video board by lifting the edge of the circuit board that has the connectors on it (CONTROL and PWR) up and out of the way of the power supply capacitors before complete removal.
7. The software IC (U305) should be visible at this point. Find it on the CPU circuit board under the video board, plugged into a 32 pin IC socket marked U305. You may need to move the 10 conductor ribbon cable aside to read the locator number; there is also a label on the IC stating the software version. (On one side of the IC there is a ribbon connector, on the other side of the IC is another device - MS6264L).
8. Apply a "L" shaped pick or jewelers flat blade screwdriver between the IC (U305) and socket at the notched end. Pry the end of the IC up enough to grab it and carefully lift straight up without further bending the pins while you complete the extraction.
9. Test fit the new IC (h/k part# A003-0020-4). The legs usually need to be bent inward. Do this by placing one side of the IC legs against the edge of a table to bend all of them at the same time. Do this on both sides just enough for the IC to fit properly into the socket.
10. Position the IC so the notch faces towards the transformers. Line up the legs into the socket and press down hard enough to seat the IC into the socket. Look at the legs on both sides of the IC and make sure there are not bent or misaligned.
11. Reinstall the video board in the same manner it was removed as in step 5, and reinstall the screws in their respective locations.
12. Plug the ribbon cable into the connector marked "CONTROL" and the green power cable into the connector marked "PWR".
13. Replace the top cover in the same manner it was removed in step 2, and reinstall the 7 screws. Tighten the rear panel screws first.
14. **You must do a reset for the new software to be enabled**. Make sure the On/Off button is in the OFF position. Plug the unit into an AC outlet. While pressing the SOURCE and MUTE buttons down at the same time, turn the On/Off button to the ON position. At this moment, the lower line of the display must read "Initialized". You may then release the buttons.