



NOTE 18

ASI2416 Assessment

1 INTRODUCTION

This note describes how to test an AudioScience ASI2416 to determine if there is some sort of hardware failure on the unit. Please follow the steps outlined below before calling or emailing AudioScience support.

References to particular “screens” on the ASI2416 can be looked up in the ASI2416 datasheet on the AudioScience website.

2 INPUT TESTING OF A SINGLE AES/EBU MODULE

This section assumes that the user has a digital audio source that generates a steady state AES/EBU signal that can be used to input a signal to the ASI2416. Typically, an AES/EBU signal generator would be used, or a sound card with an AES/EBU output playing a sinewave. In both cases, this section will refer to the AES/EBU digital audio source as the “signal generator.”

The signal generator should be set to output a 0 dBFS (FullScale) signal; this makes it easier to read the ASI2416 meter display. A full-scale signal will create a checkerboard pattern for the AES/EBU input display.

2.1 Steps

1. Using the ASI2416 push button, navigate to the AES/EBU module display. Attach the AES/EBU output from the signal generator to the AES/EBU module’s input 1 and record the reported peak level on the ASI2416 meter display (if not using FullScale signal, see the ASI2416 datasheet for how to read the meter display bars).
2. Move the signal generator output to the AES/EBU module’s inputs 2, 3, and 4 in sequence and note the input level displayed on the ASI2416 display.
3. The levels reported across the 4 AES/EBU inputs should be constant. If they are not, you need to get in touch with AudioScience technical support. Send a detailed email to support@audioscience.com. In the email, include all information on the ASI2416’s Product Information Display screen.

3 OUTPUT TESTING OF A SINGLE AES/EBU MODULE

As in the input testing section above, this section assumes that the user has a digital audio source that generates a steady state AES/EBU signal that can be used to input a signal to the ASI2416. Typically, an AES/EBU signal generator would be used, or a sound card with an AES/EBU output playing a sinewave. In both cases, this section will refer to the AES/EBU digital audio source as the “signal generator.”

The signal generator should be set to output a 0 dBFS (FullScale) signal; this makes it easier to read the ASI2416 meter display. A full-scale signal will create a checkerboard pattern for the AES/EBU output display. The following steps first zero out an output signal and then turn up a single feed-through volume.

3.1 Steps

1. Using the ASI2416 push button, navigate to the AES/EBU module display.
2. Attach the AES/EBU output from the signal generator to the AES/EBU module's input 1.
3. Verify the input level is as expected.
4. Verify you can turn off AES/EBU output N by opening ASIControl and in the left 'topology' pane, click on AES/EBU_Out N and make sure that, in the right node pane, all volumes are set to -100 dB. You may have to scroll down to access all the volumes.
5. Verify that the meter display on the ASI2416 for AES/EBU output N shows less than -40 dB (no vertical bars). Note that the AES/EBU input meter should still be active and show the level of the input AES/EBU signal.
6. Now, in the ASIControl lower right control pane, locate the volume for AES/EBU input N. Raise that volume, and that volume only, to 0 db. Verify that the AES/EBU output level displayed on the ASI2416 bar meters match for input N and output N.
7. Repeat the above test for each of the 8 AES/EBU channels.
8. The levels reported across the 4 AES/EBU outputs should be constant. If they are not, you need to get in touch with AudioScience technical support. Send a detailed email to support@audioscience.com. In the email, include all information on the ASI2416's Product Information Display screen.

3.2 Resetting

Upon completion of the above test, the user will probably want to go back into ASIControl and lower the AES/EBU feedthrough volumes and raise the CobraNet channel volumes to 0 dB. Take care not to set volumes higher than 0 dB.

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