



AUD-D2A

User Manual

Version 1.1

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1 Introduction

1.1 Purpose

This document presents the AUD-D2A digital to analog audio converter. It also provides explanation concerning the AUD-D2A connections between a DCP-2000 Digital Cinema Server and an external Cinema Analog Audio Processor.

1.2 Presentation

This document is structured according to the following sections:

- **Section 1:** Introduction – Overall presentation of the document
- **Section 2:** AUD-D2A Presentation – Usage and characteristics of the AUD-D2A product
- **Section 3:** Rear Panel Connections – Presentation of the AUD-D2A rear panel connections
- **Section 4:** AUD-D2A Connections to DCP-2000 and Cinema Analog Audio Processor – Description of the connection steps
- **Section 5:** Document Revision History

2 AUD-D2A Presentation

2.1 Overview

AUD-D2A is an 8 channels digital to analog audio converter. It has been designed to interface the DCP-2000 (Digital Cinema Server) digital audio output to Analog Audio Processors for theatres without a Digital Cinema Audio Processor.

It accepts digital audio format signal (AES/EBU) as an input and outputs the same signal converted into analog audio format.

The product ships with unbalanced output by default. It can ship with balanced output as well.

The unit has been designed to be rack-mounted. Its dimension is 1RU. It can be mounted either close to the DCP-2000 or close to the Cinema Analog Audio Processor.

2.2 AUD-D2A Front Panel

Its front panel has 2 LEDs:

- one green LED showing when the unit is ON,
- one yellow LED showing the audio activity.



Figure 1: AUD-D2A Front Panel

2.3 AUD-D2A Rear Panel

The back panel allows you how to connect the unit to the power outlet (100-240VAC / 50-60Hz). It has a Power switch for turning the unit ON or OFF.

On the back panel, two DB25-F connectors are available:

- one for the Digital Audio Input,
- one for the Analog Audio Output.

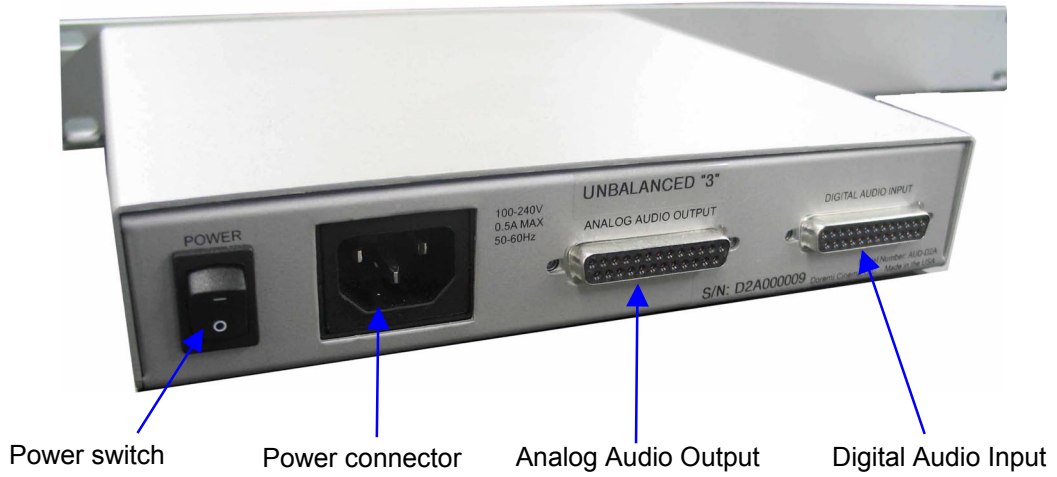


Figure 2: AUD-D2A Rear Panel

3 Rear Panel Connections

3.1 AES/EBU Digital Audio In DB25-F Connector Pin-Out

The digital Audio Input connector pin-out complies with the AES/EBU standard and is illustrated below:

Pin #	Signal Description	Pin #	Signal Description
1	no connection	14	no connection
2	no connection	15	no connection
3	no connection	16	no connection
4	no connection	17	no connection
5	no connection	18	no connection
6	no connection	19	no connection
7	Ch 7 & 8 plus	20	Ch 7 & 8 minus
8	Ch 7 & 8 ground	21	Ch 5 & 6 plus
9	Ch 5 & 6 minus	22	Ch 5 & 6 ground
10	Ch 3 & 4 plus	23	Ch 3 & 4 minus
11	Ch 3 & 4 ground	24	Ch 1 & 2 plus
12	Ch 1 & 2 minus	25	Ch 1 & 2 ground
13	no connection		

DCI Channel Map:

Channel 1: L (screen – left)
 Channel 2: R (screen – right)
 Channel 3: C (screen – center)
 Channel 4: LFE (screen – low frequency effects subwoofer)
 Channel 5: Ls (surround – left wall)
 Channel 6: Rs (surround – right wall)
 Channel 7: Lc (screen – mid left to center)
 Channel 8: Rc (screen – mid right to center)

The cable that is used to interconnect the DCP-2000 to the AUD-D2A is a one to one pin compatible.

A picture of the DB25-F input connector is provided below:

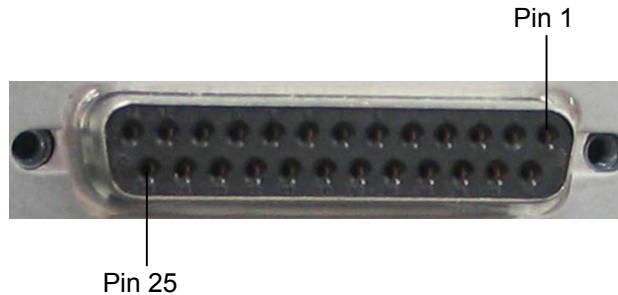


Figure 3: AUD-D2A Digital Audio Input Connector (DB25-F)

3.2 Analog Audio Out DB25-F Connector Pin-Out

The DB25-F connector for the analog audio output has the following pin-out – for the default unbalanced configuration only:

Pin #	Signal Description	Pin #	Signal Description
1	Ch 8 plus	14	no connection
2	Ch 8 ground	15	Ch 7 plus
3	no connection	16	Ch 7 ground
4	Ch 6 plus	17	no connection
5	Ch 6 ground	18	Ch 5 plus
6	no connection	19	Ch 5 ground
7	Ch 4 plus	20	no connection
8	Ch 4 ground	21	Ch 3 plus
9	no connection	22	Ch 3 ground
10	Ch 2 plus	23	no connection
11	Ch 2 ground	24	Ch 1 plus
12	no connection	25	Ch 1 ground
13	no connection		

DCI Channel Map:

Channel 1: L (screen – left)
 Channel 2: R (screen – right)
 Channel 3: C (screen – center)
 Channel 4: LFE (screen – low frequency effects subwoofer)
 Channel 5: Ls (surround – left wall)
 Channel 6: Rs (surround – right wall)
 Channel 7: Lc (screen – mid left to center)
 Channel 8: Rc (screen – mid right to center)

A picture of the DB25-F output connector is provided below:

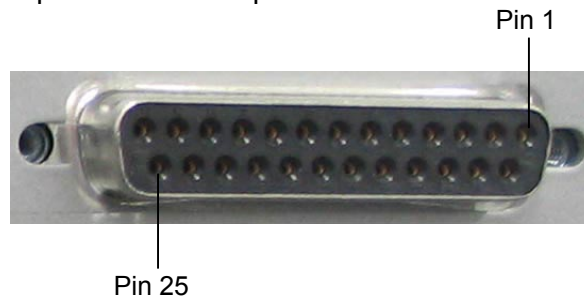


Figure 4: AUD-D2A Analog Audio Output Connector (DB25-F)

4 AUD-D2A Connections to DCP-2000 and Cinema Analog Audio Processor

This section presents the overall schematic of the AUD-D2A connections between a DCP-2000 and an external Cinema Analog Audio Processor.

4.1 Connections Schematic

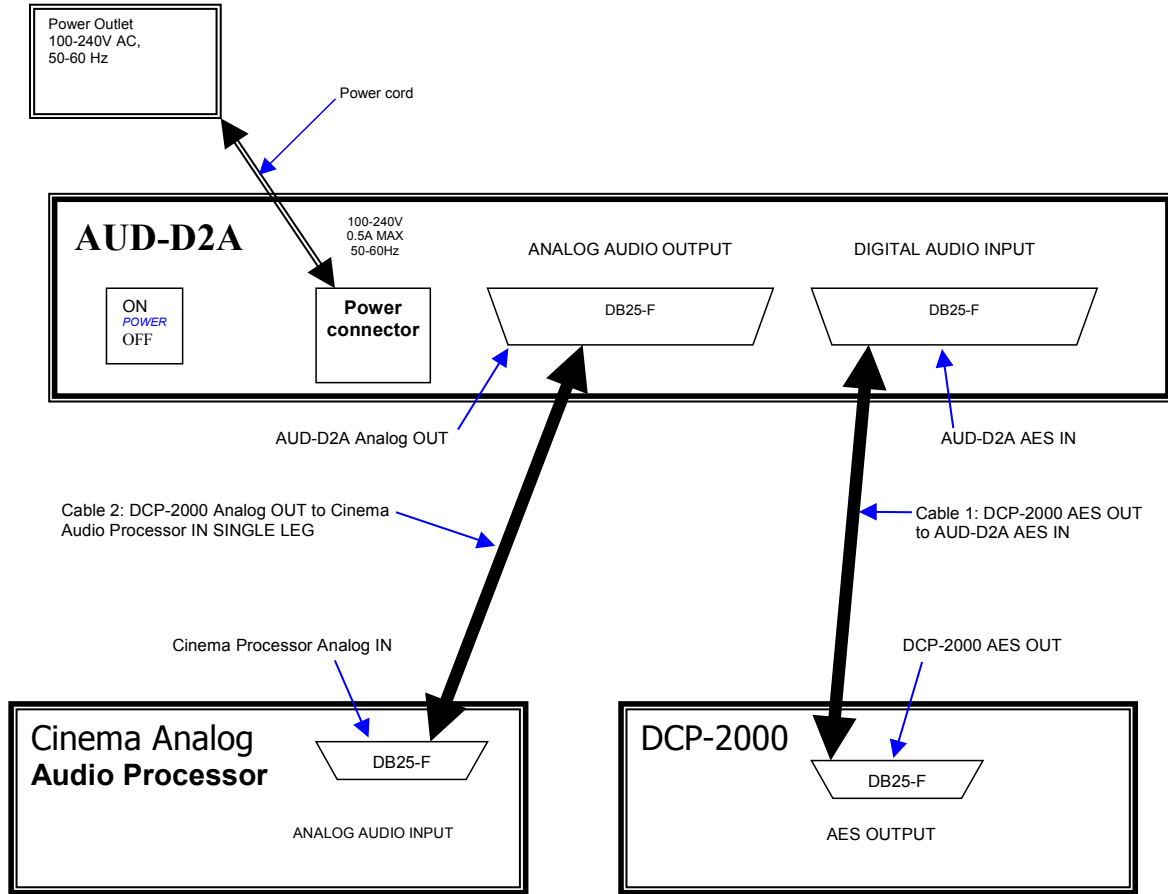


Figure 5: AUD-D2A to DCP-2000 Connections Schematic

4.2 Connections Procedure

This section presents the procedure to follow, step by step, to connect the AUD-D2A between a DCP-2000 and an external Cinema Analog Audio Processor.

To connect the AUD-D2A between a DCP-2000 and an external Cinema Analog audio processor, follow the steps presented in the paragraphs below.

4.2.1 Step 1: Connecting the AUD-D2A Analog Audio

Connect the AUD-D2A to the Cinema processor using the DCP-2000 Analog Out cable as presented below:



Figure 6: AUD-D2A Rear Panel – DCP-2000 Analog Cable Connection

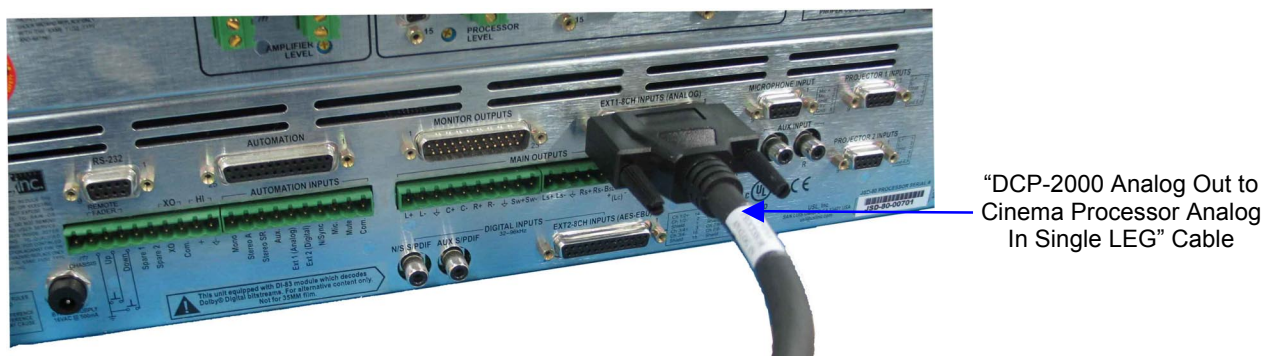


Figure 7: Cinema Processor – DCP-2000 Analog Cable Connection

4.2.2 Step 2: Connecting the AUD-D2A Digital Audio

Connect the DCP-2000 to the AUD-D2A using the DCP-2000 AES Out Cable as presented below:

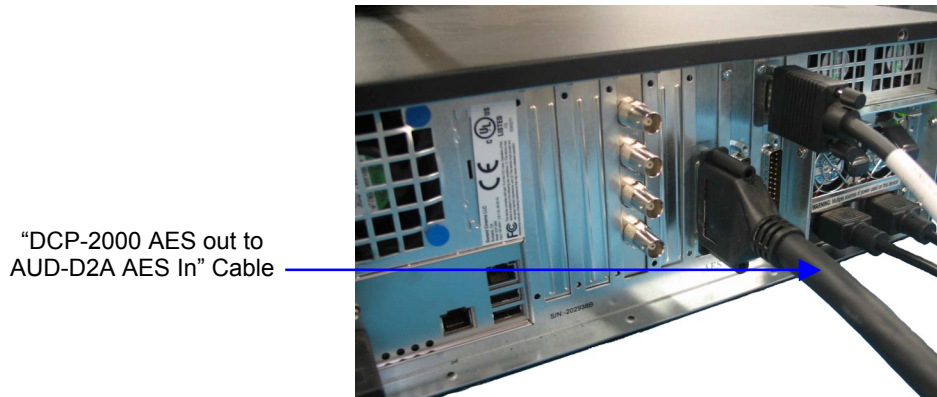


Figure 8: DCP-2000 Rear Panel – AES Cable Connection



Figure 9: AUD-D2A Rear Panel – AES Cable Connection

4.2.3 Step 3: Connecting the AUD-D2A Power Cable

Plug the power cable into the AUD-D2A and power it ON by putting the power switch in the ON position as presented in **Figure 9** above.

The power LED of the front panel should light ON (green LED). If any activity is detected, the “active LED” (yellow LED) should be lighted – see **Figure 1**.

5 Document Revision History

Date	Version	Description
03/07/2008	1.0	First version.
08/07/2008	1.1	Audio output revised for default un-balanced configuration