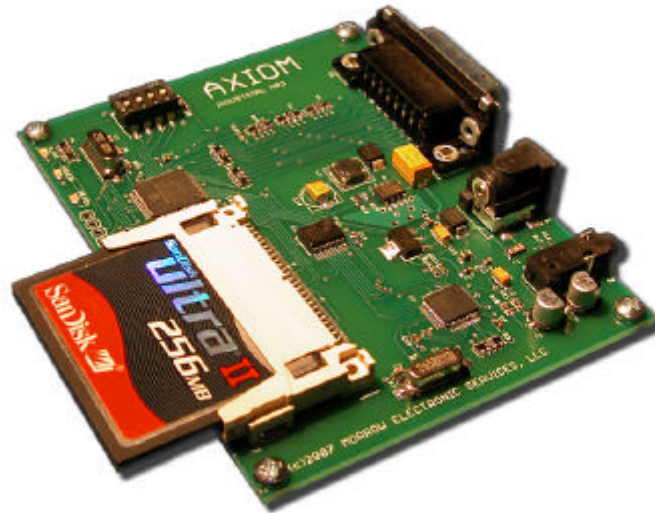


# Axiom Digital Audio Player User Manual



Thank you for purchasing the Axiom Digital Audio Player. We hope that you will find this product to be a high quality and easy to use addition to your exhibit or kiosk project. If you have any questions or comments please let us know by email: [sales@jerryselectronics.com](mailto:sales@jerryselectronics.com) .

Included components:

- Audio player board
- Power Adaptor
- 32MB (or larger) Compact Flash Card
- Pigtail for inputs
- This manual
- Optional accessories

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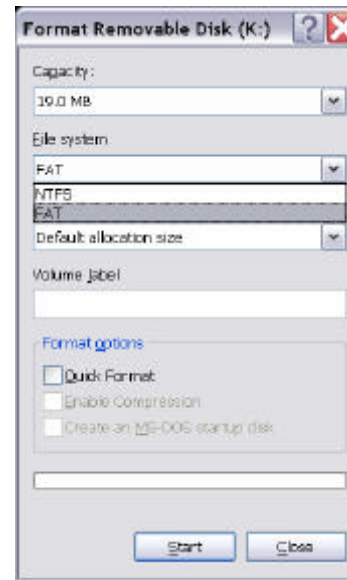
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## Card Setup:

### Formatting the card:

The digital audio player expects the memory card to be formatted with a single FAT16 (sometimes labeled as FAT) partition. In windows, right click on the drive that represents your card reader and click format. From this screen select the proper file system. A quick format is sufficient, but since most modern flash cards use bulk-erase, there is not much of a time savings.



### Encoding:

There are many commercial and free MP3 encoders on the market today. Free packages based on the LAME<sup>1</sup> encoder work very well. The test files that are included with the player were encoded with Adobe Audition (the successor of Cool Edit Pro). The length of the clip is only limited by the size of the memory card. Each clip may be encoded at a different bit rate.

### Naming the file:

Each clip is recorded as a separate file for example:

ATRK0001.MP3 for clip 1

ATRK0012.MP3 for clip 12

There is one special purpose file ATRK0000.MP3, this is the interruptible loop file. This file will loop until another clip is called, this is useful for attract loops and setups that only require one clip to loop continuously. There is an option setting for this file that will enable or disable the status output while it is playing, see the section on hardware configuration.

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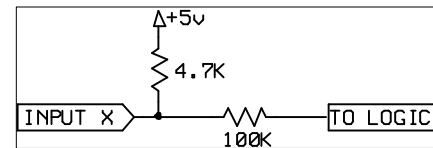
<sup>1</sup> [www.mp3dev.org](http://www.mp3dev.org) Has many links to free and commercial encoders.

When a clip that does not exist on the memory card is called, the command is simply ignored or the current clip is stopped depending on the configuration.

### Hardware connections:

#### Playing a clip:

To call a clip, close the connection between the input and the common or ground connection. The inputs are 5v logic and can be directly connected to other logic devices, relays, or buttons. See the circuit diagram on the right for the equivalent input circuit.



There is a status output line that is high while a clip is playing. The status line can be used to trigger an external event or to indicate when the clip is over.

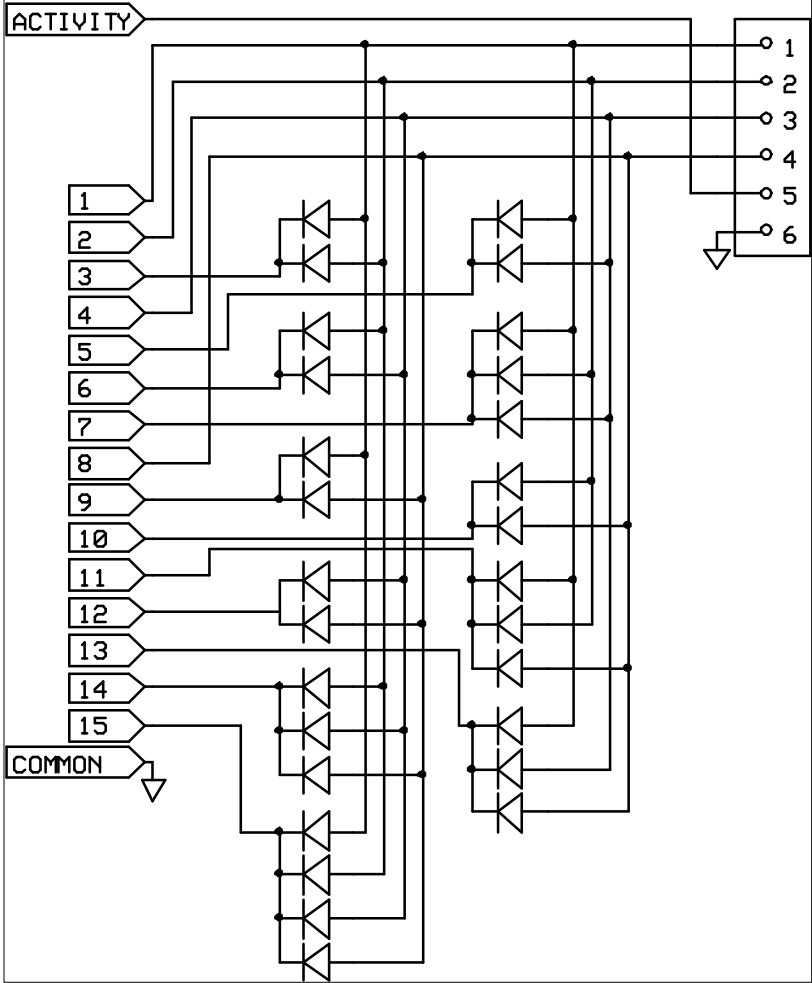
The audio output is capacitor coupled to eliminate any DC offset; it is suitable for driving small headphones or the line input of an external amplifier.

The standard board uses one DB-15 15 Pin Connector that carries all control signals, two status outputs and ground.

#### Power:

The audio player requires 7-20 Volts at 1 Watt from a 2.1mm center positive connector. The power supply does not need to be regulated, but it should not exceed 22 Volts.

Using diodes for 15 direct inputs:



Standard and optional input connections:

Pin Connections for DB-15 Connector (Standard Mode)

Pin	Function	Type	Color
1	Clip 1	TTL Input	Red
2	Clip 2	TTL Input	White
3	Clip 4	TTL Input	Green
4	Clip 8	TTL Input	Orange
5	Clip 16	TTL Input	Blue
6	Clip 32	TTL Input	Brown
7	Clip 64	TTL Input	Yellow
8	Clip 128	TTL Input	Purple
9	Common	Power	Black
10	Common	Power	
11	Status	TTL Output	Grey
12	Status	TTL Output	
13	+5v (50mA MAX)	Power	
14	Reserved	TTL Output	
15	Reserved	TTL Input	

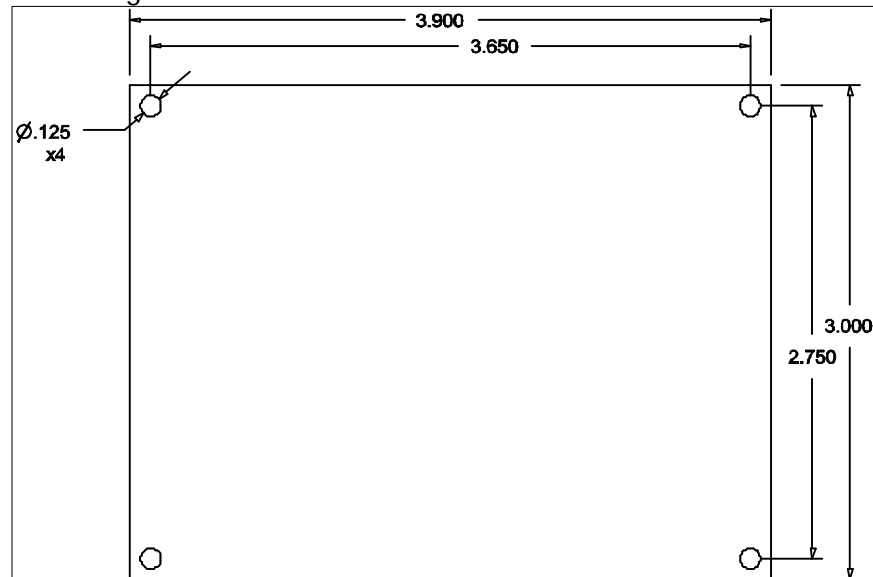
Pin Connections for DB-15 Connector (Random / Sequential Mode)

Pin	Function	Type	Color
1	Play Next	TTL Input	Red
2	Play Previous	TTL Input	White
3	Play Random	TTL Input	Green
4	N/A	TTL Input	Orange
5	N/A	TTL Input	Blue
6	N/A	TTL Input	Brown
7	N/A	TTL Input	Yellow
8	N/A	TTL Input	Purple
9	Common	Power	Black
10	Common	Power	
11	Status	TTL Output	Grey
12	Status	TTL Output	
13	+5v (50mA MAX)	Power	
14	Reserved	TTL Output	
15	Reserved	TTL Input	

Dip Switch Settings:

Switch	Function	On	Off
1	Track interrupt	Enabled	Disabled
2	Loop Status	Status output high while playing any clip	Status output high only during clips 1-15
3	Random / Sequential Play	Enabled	Disabled
4	Hold Play	Stop playing when input is released	Play until end or when interrupted (see #1)

Mounting Guide:



Ordering Guide:

Base player: AXAUDIO  
Aluminum case: EAC

Example:

An audio player with the aluminum case:  
AXAUDIO-EAC

A base player with no added options:  
AXAUDIO

Troubleshooting:

- Power light is on, but unit does not respond to input
  - Make sure all audio clips are encoded properly
  - Check input voltage from power supply (7-20V)
- Status light is on, but no sound is playing
  - Check the audio connections and make sure all the clips are encoded properly.
- Status light is flashing
  - There has been an internal error, restart player or reload contents of the flash card.

Help us improve the troubleshooting section, please forward any challenges / solutions so that we can address them or add them to this section.

Accessories:

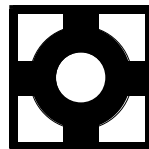
Available from: [www.jerryselectronics.com](http://www.jerryselectronics.com).

15 Button direct input board with screw terminals:



15 Button direct input board with solder terminals:





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