



uTrack24 MADI Module



USER'S MANUAL

Version 1

July 2015

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1. INTRODUCTION

Congratulations on your purchase of the uTrack24 MADI Module! This user-installable option card allows you to integrate your uTrack24's multi-channel audio input and output with any standard MADI system.

With the uTrack24 MADI Module, you can patch your uTrack24's inputs and outputs into MADI equipped live sound consoles, stage boxes, installed sound systems and more. Record stage audio from the console and send a huge number of individual numbers of backing tracks to any MADI system. All using just 2 cables that can be extended for hundreds of feet!

1.1. Features

- Seamlessly integrates uTrack24's audio I/O with MADI-based audio systems
- Record 24 separate channels from output of digital consoles
- Route 24-channels to console for pre-record material / virtual sound check
- BNC Coaxial / Fiber Optic Connectors allow connections over long distances
- Works with multiple MADI protocols, channel counts, and sample rates
- Routing of 56/64 source channels to/from 24 recorder/playback inputs
- Allows loop output of incoming MADI signals
- 24-channel analog outputs remain active while using digital outputs of card

1.2. uTrack24 Required Firmware

In order for the MADI Module to operate correctly, your uTrack24 must be updated to the latest available firmware version. If you fail to do so, the MADI Module will not be recognized by the uTrack24 and the relevant MADI setup menus will not be present.

Download the latest uTrack24 firmware updater file at: <http://www.cymaticaudio.com/downloads> then follow the firmware update instructions detailed in the uTrack24 users manual.

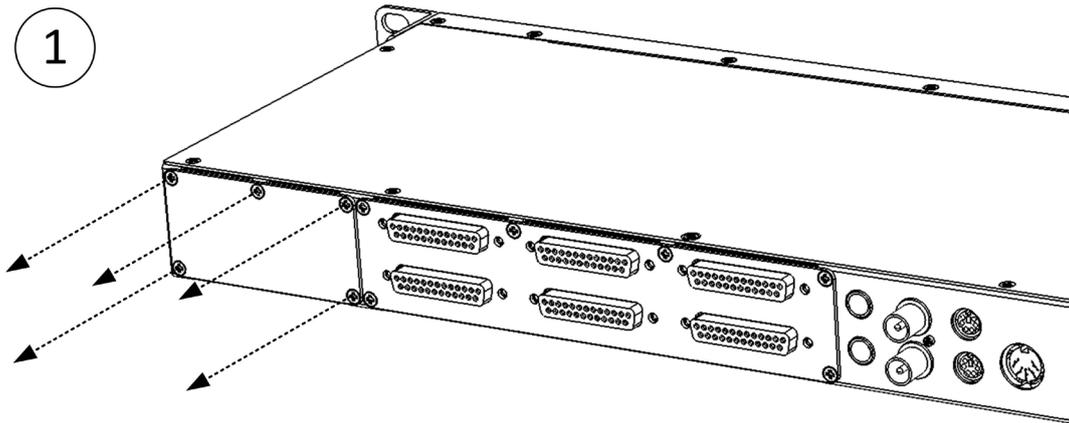
2. INSTALLATION OF THE UTRACK24 MADI MODULE



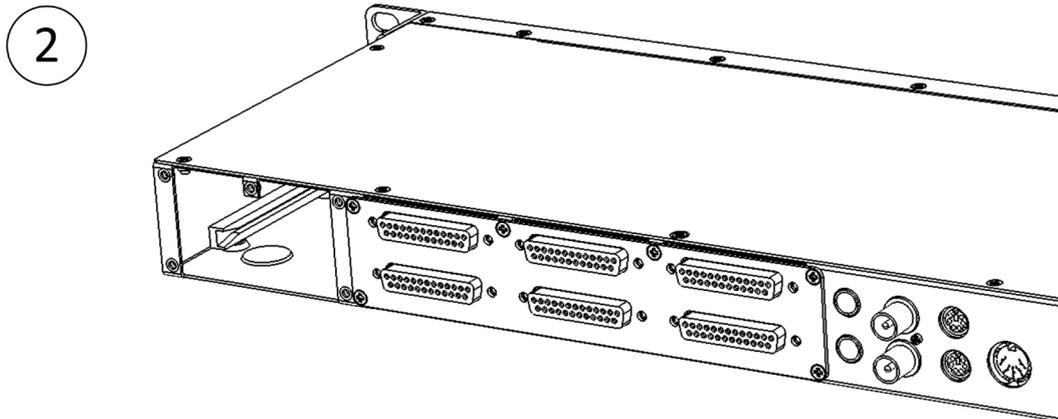
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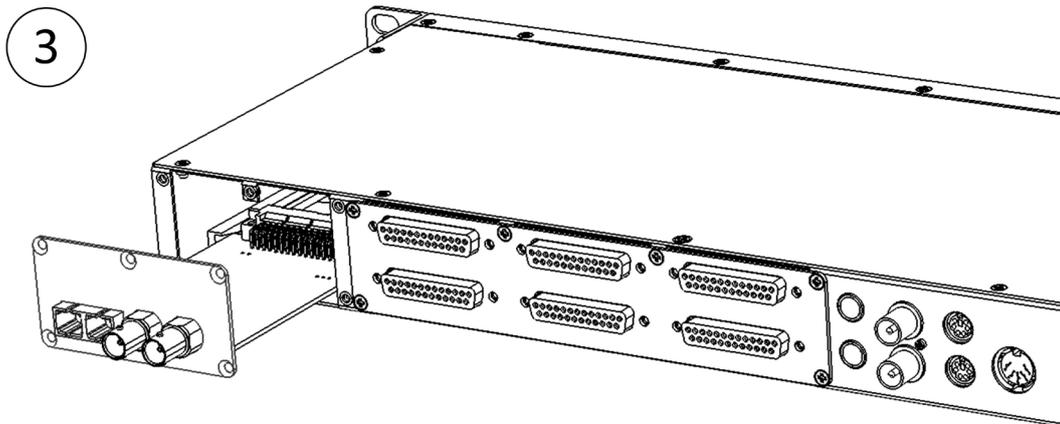
Unplug the power cable before installing the MADI Module.



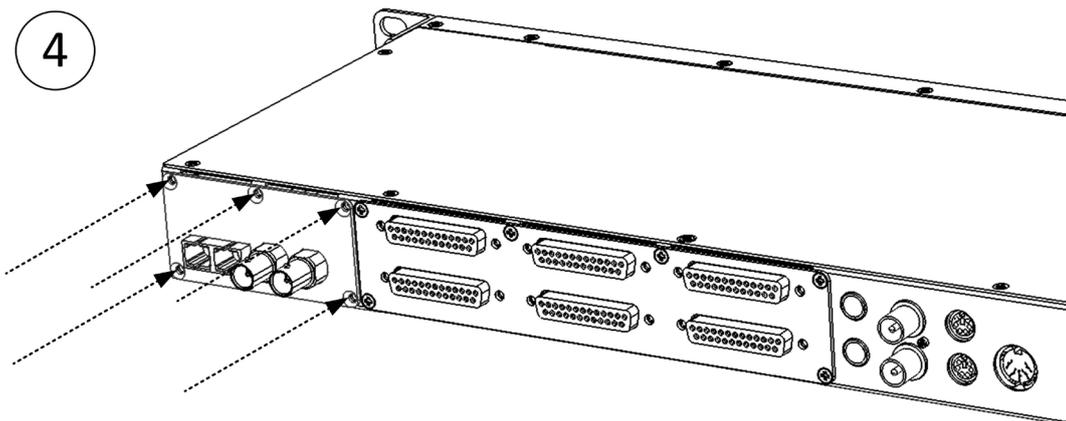
Open the 5 screws of the digital slot.



Remove the digital blind panel.



Align the MADI Module with the module guides, then push it all the way into the internal connector socket.



Tighten the 5 screws again. Do not use too much force, in order to prevent the screws from breaking.

Power up the uTrack24. When the MADI Module is recognized, two new menus are now present:

- A new “Inputs” menu is presented where Analog inputs or digital inputs can be chosen.
- A new menu entry labeled “MADI” is presented in the settings menu, allowing you to adjust various MADI-based parameters. These new MADI related menus only appear if a MADI Module has been installed into the uTrack24.

For full details of the MADI-related menus, please refer to the latest revision of the uTrack24 User’s Manual, available at www.cymaticaudio.com/downloads.

3. MADI MODULE CONNECTORS



The MADI Module contains two separate sets of inputs and outputs, one set in fiber-optic format and the other set in coaxial format.

The optical connectors use a Duplex SC style fiber connector, and are best used with multimode fiber cables using either of the following properties:

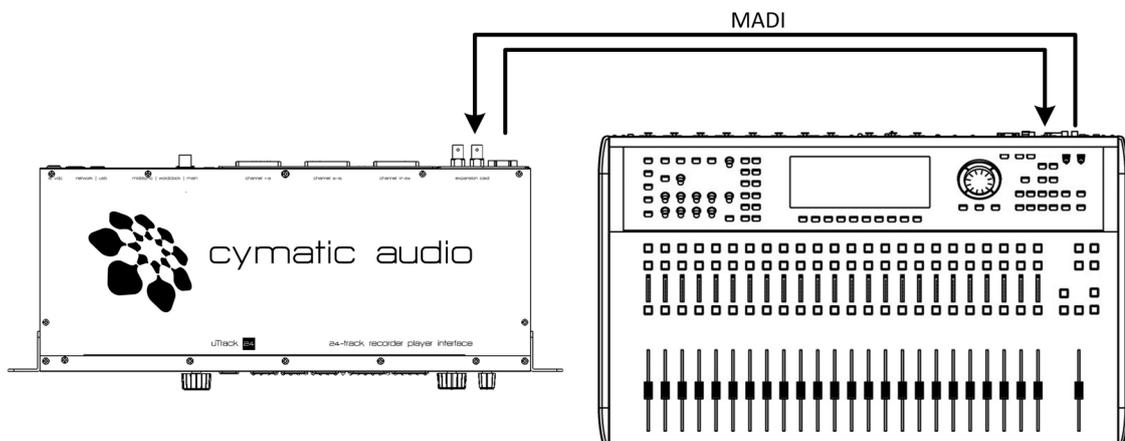
- 50 μm core / 125 μm cladding
- 62.5 μm core / 125 μm cladding
- Up to 2000 m cable length

The coaxial connectors use BNC style connectors running at 75-Ohm impedance, and can be used with cables up to 100 meters in length.

Use the uTrack24 settings menu to select which of the two connector types should feed the uTrack24's input (optical or coaxial)

On the output side, both sets of MADI outputs are active at all times, no matter which flavor of input is used (as are the analog outputs).

4. MADI MODULE CONNECTION DIAGRAM



4.1. To Record Multitrack Audio from the Console to the uTrack24

- Connect a MADI cable from the MADI output of the mixing console to the MADI input of the uTrack24 MADI Module.
- Set the uTrack24's MADI input to use the physical port you are connecting to from the console (either coaxial or optical)
- Set the uTrack24 clock to Internal. In this case the MADI system is slaved to the uTrack24 internal clock.
- Set the uTrack24 clock to "Digital I/O" option. This will slave the uTrack24's clock to the MADI system clock present on the console's output.
- Configure the console to send direct outputs of the desired audio channels (for example channels 1-24) to the desired MADI streams (for example MADI streams 1-24)
- Configure the uTrack24's audio inputs to be sourced from the desired MADI streams (for example MADI streams 1-24)
- Make sure that the uTrack24 Recording sample rate is set to use the same sample rate that the console is set to.
- Press Record; The uTrack24 will record 24 channels from the console's MADI output

4.2. To Playback Multitrack Audio from the uTrack24 to the Console

- Connect a MADI cable from the MADI output of the uTrack24 to the MADI input of the mixer
- Configure the console's MADI inputs to feed the desired input section of the console
- On the uTrack24's settings menus, configure uTrack24 outputs 1-24 to feed the desired channels of the MADI stream
- Load a song on the uTrack24 and press play; the 24 individual audio channels will now play over the MADI connection to the console's inputs.



uTrack24 MADI Module

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