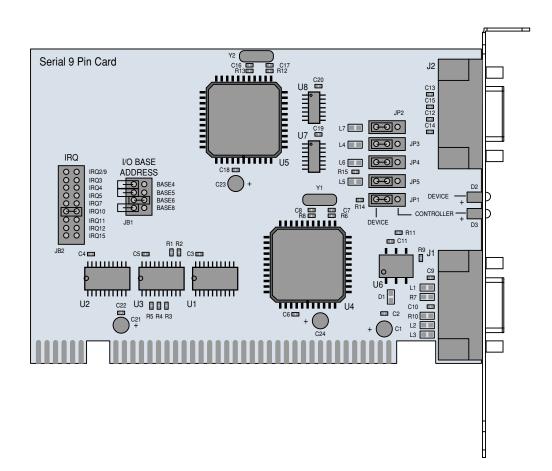
# serial-9 Installation Guide

for the HDR24/96



Dual Communication Card for the HDR24/96



## **Important Safety Instructions**

- 1. Read instuctions Read, understand and follow all safety and operating instructions before using this Mackie product.
- 2. Retain Instructions Keep these safety and operating instructions for future reference.
- 3. Heed Warnings Follow all warnings on this Mackie product and in these operating instructions.
- 4. Disconnect the power source to the HDR24/96 before installing the Serial•9 Card.
- Servicing Do not attempt to service this Mackie product. All servicing should be referred to the Mackie Service Department.

### Introduction

Thank you for choosing Mackie Designs for your hard disk recording solution. The Serial•9 is a major step forward in our continued support of the HDR24/96 Hard Disk Recorder.

The Serial•9 replaces the existing MIDI card in the HDR24/96, and offers both MIDI (MTC and MMC) and Sony 9-Pin communication with external devices like remote controllers and DAWs (Digital Audio Workstations).

No additional setup is required. Just plug the Serial•9 in and you're ready to go!



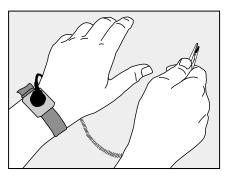
**Important:** You must have version 1.3 or higher of the HDR24/96 OS in order to use the Serial•9. Follow the installation instructions with the software upgrade to install the new software.

### Installing the Serial•9



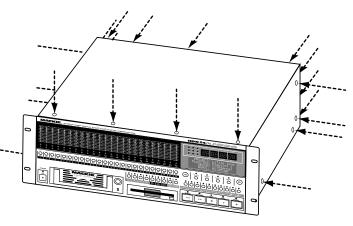
**Important:** The Serial•9 contains static-sensitive components. Anti-static precautions *must* be taken before opening the anti-static bag and handling the Serial•9. *Use an* 

*anti-static wrist strap when performing this installation.* These are available at most computer supply stores. The use of an anti-static mat is also recommended.



**ATTENTION:** The installation of this option requires opening the HDR24/96 and handling sensitive electronic components. Anti-static precautions *must* be taken in order to prevent potential damage to the unit. Damage caused to the unit due to improper installation or handling of these components *will not be covered under warranty*. If you do not feel capable of performing this installation, please call Mackie Tech Support at 800-898-3211 to obtain a referral to a service center that can perform the installation.

- Turn off the HDR24/96 and remove the AC linecord from the socket on the rear panel. We don't want this to be a shocking experience for you!
- Remove 22 screws from the HDR24/96 cover using a #2 Phillips screwdriver (4 screws from the top panel, 4 screws from each side, and 10 screws from the rear panel). These screws are all one size.

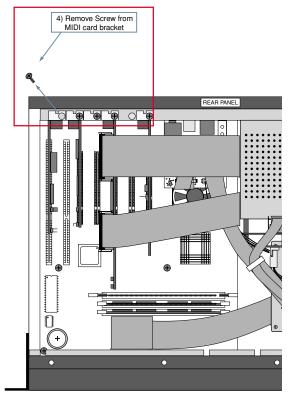


 Remove the cover by lifting it up at the back and pulling up and away from the front of the unit.

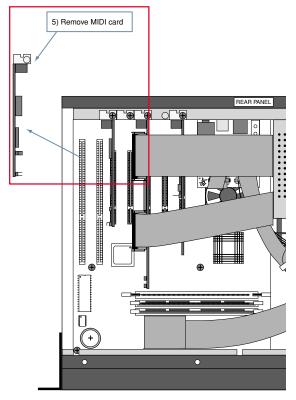
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- 4) Remove the Phillips-head screw securing the MIDI card. Save the screw for installing the Serial•9 card.
- 6) Install the Serial•9 card in the MIDI slot. Secure it into place with the Phillips-head screw.



- Installation Guide 6b) Install Screw into Serial•9 card bracke 6a) Gently press the Serial•9 card into the slot
- 7) Replace the cover, reinstall the screws, and you're ready to go!
- 5) Remove the MIDI card by gently lifting up on the card and bracket to remove it from the socket on the board.



### **Making the Connections**

### **MIDI Connection**

The MIDI connection on the Serial•9 card is the same as the MIDI connection on the MIDI card it is replacing. Simply connect the supplied MIDI breakout cable to the bottom 9-pin connector on the Serial•9 card, and connect the 5-pin MIDI IN and MIDI OUT connectors to your MIDI interface.

### **Serial 9-Pin Connection**

The Serial 9-Pin connection on the Serial•9 card is an RS-422 port that supports the Sony® 9-Pin device protocol. Connect the upper 9-pin connector to any industry standard Sony 9-Pin controller or device using a DB9 male to DB9 male serial computer cable (available at most computer supply outlets).

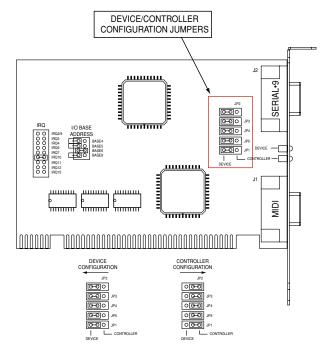
**Note:** Make sure your Sony 9-Pin controller or device accepts a male DB9 connector.

The Serial•9 card is shipped configured to operate as a device (DEV); that is, to connect to a controller and be controlled. This is indicated by the green LED on the Serial•9 card.

It is possible to configure the Serial•9 to be the controller (CONT), to control another device. Simply move the five jumpers (JP1–JP5) on the Serial•9 card as shown in the illustration below to configure the card as a controller. This is indicated by the red LED on the Serial •9 card.



**Note:** HDR24/96 software version 1.3 supports only device (DEV) protocol for the Serial•9. Please refer to the Software Release Notes, which can be found on Mackie website's HDR24/96 software downloads page, for complete information on the support of Serial•9 for all software versions.



Serial•9 Device/Controller Configuration

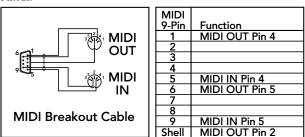
# **Specifications**

#### MIDI

Electrical Interface: Data Rate: MIDI 1.0 Specification

31.25 kb/sec





#### Serial 9-Pin

Electrical Interface: Data Rate: Parity: Data Bits: Stop Bits: Indicators: EIA RS-422-A 38.4 kb/sec Odd 8 1 Green LED (Device) Red LED (Controller)

Pinout:

Serial	Device	Controller
9-Pin	Function	Function
1	Frame Ground	Frame Ground
2	Transmit A (–)	Receive A (–)
3	Receive B (+)	Transmit B (+)
4	Receive Common	Transmit Common
5	N/C	N/C
6	Transmit Common	Receive Common
7	Transmit B (+)	Receive B (+)
8	Receive A (–)	Transmit A (–)
9	Frame Ground	Frame Ground

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