

Upgrading your LavryBlue



The LavryBlue series of audio processors are a modular design. They are custom configurable, both at the factory and by the end user. For example, if you start out by purchasing a single M·AD 824 Analog to Digital converter unit, it is possible to add up to three modules providing additional functions.

You can add up to three additional M·AD 824 or M·DA 824 modules in any combination. Alternatively, up to one additional Microphone Preamplifier and one AD or DA module can be added. This procedure will detail how to install the additional modules.

Order of Installation:

In the LavryBlue chassis, all M·AD modules should be to the left side of the chassis, then the M·DA modules, and finally the Microphone preamplifier boards on the right side of the chassis. This is to ensure proper electrical connection between boards.

Tools Required:

The only tools required are a #1 and #2 Phillips screwdriver.

Handling Precautions:

As with any electronic device, the LavryBlue Audio Processors are sensitive to static discharge. The ideal work environment would be an approved ESD workstation with a grounding mat and ESD wrist strap. An approved ESD wrist strap grounded to a convenient location is also a good solution.

In the absence of ESD facilities, one should use care to discharge any static by touching a *known* grounded surface such as a 19" equipment rack before handling the modules or 4496 chassis.

CAUTION!

Disconnect all power and audio cables from the rear of the 4496 unit before proceeding with disassembly!

Adding the first M·AD 824 Module:

Lavry Engineering does not recommend installation of the first M·AD 824 by the end user. This tutorial does not cover that procedure. Please contact Lavry Engineering or your dealer for installation options and pricing. The MSYNC Multi-channel Sync module attaches to the first M·AD 824 and there are critical calibrations performed at the time of installation. Any 4496 with one or more M·AD 824's requires an MSYNC module.

Upgrading your LavryBlue

There are two different types of screws holding the front panel in place. Please use the longer conical head screws only through the rack ears and the shorter undercut head screws in the top and bottom covers.



6-32 Flat Head
Use in Rack Ears
(on sides).



6-32 Undercut Head
Use in Top cover
and Bottom.

In this example, we're going to expand a LE 4496-12. This configuration comes with 2 channels of A to D conversion and 2 channels of D to A conversion. We're going to install another M·AD 824.

Using the #2 Phillips screwdriver, remove all the screws from the top panel of the unit. Turn the unit over, and remove the three screws near the front panel on the bottom of the unit, and set them aside. These are all *undercut head* screws. See Figures 1 and 2.



Figures 1 and 2

Upgrading your LavryBlue

Remove the front two screws that hold the front panel in place from the rack mounting ears at the ends of the unit. There are a total of four screws, two on each side. These are *conical head* screws. They should be returned to the same location from which they were removed. See Figure 3.



Figure 3

The front panel can now be removed by pulling it forward, away from the unit, so it clears the toggle switches on the modules.

Turn the unit around, and remove the two screws from the back panel that holds the filler plate in place. Use the #1 Phillips screwdriver for these screws. See Figure 4.



Figure 4

Upgrading your LavryBlue

In this example the unit has an M·DA 824 already installed, so it must first be removed. All similar modules must be grouped together. Since we will add two channels of A to D conversion, we must move the M·DA 824 that's already installed to the right one position (as seen from the front).

You will first need to unscrew the rear panel screws holding the XLR connectors using the #1 Phillips screwdriver. Disconnect the black plug of the M·DA 824 ribbon cable from the M·AD 824. Using a #2 Phillips screw driver, unscrew the 5 chrome colored screws holding the module in the chassis and remove the board. The front of the module must be elevated so the push tab on the XLR connector clears the hole in the chassis. See Figure 5.

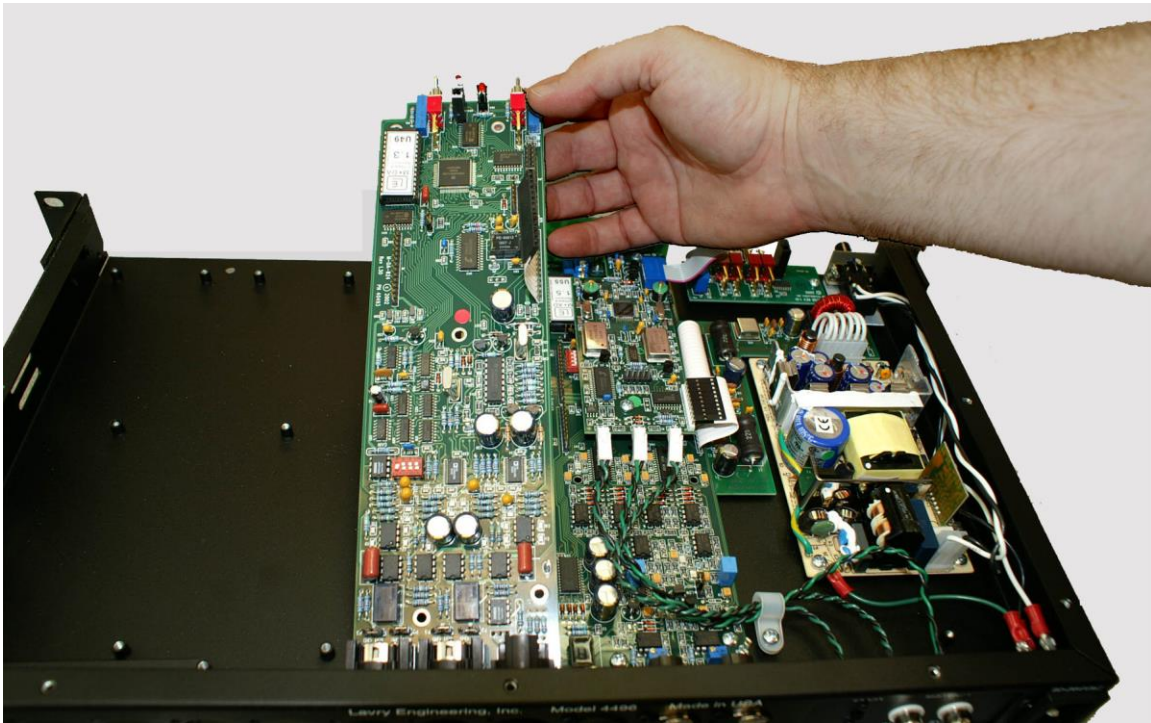


Figure 5

Upgrading your LavryBlue

On the first M·AD 824 board installed, there is a red DIP switch block (switches are labeled from 1-4). See Figure 6.

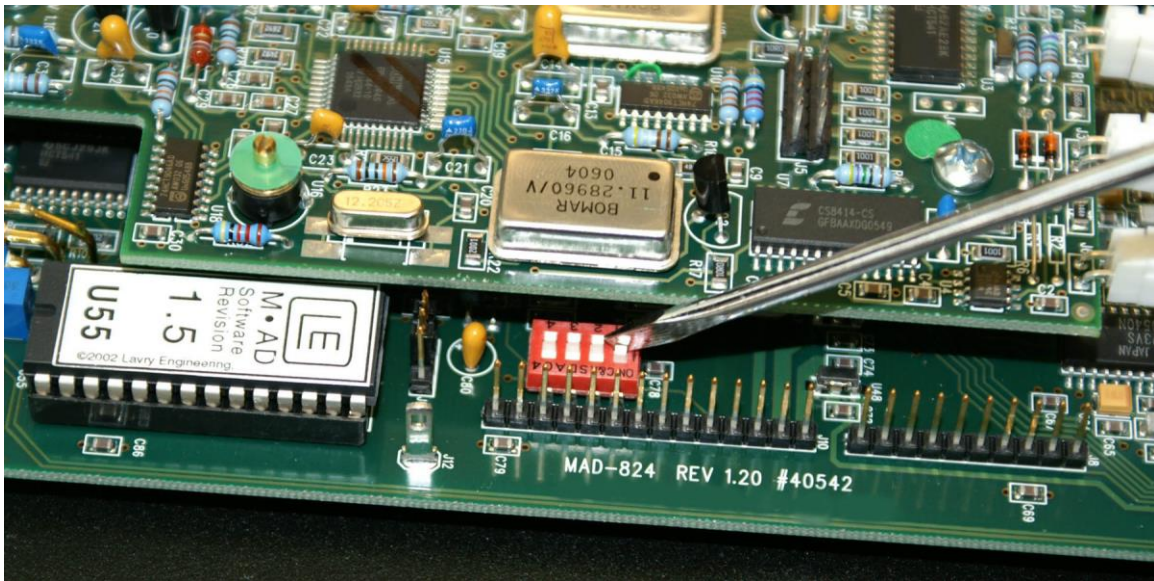


Figure 6

The number 1 switch should be in the ON position; all other switches should be off. Verify that Switch 1 is ON. This sets the first M·AD 824 to Master, allowing you to control all other M·AD 824's which act as "Slaves" so all AD modules will have identical settings. Please refer to the LavryBlue 4496 Manual for more details. Additional M·AD 824 modules should have switch 1 set to the OFF position to act as Slaves.

Slide the new M·AD 824 into the slot next to the installed M·AD 824 with the front of the module elevated as shown in Figure 5. This is necessary to allow the push-tabs on the XLR connectors to clear the holes in the rear panel.

Use the 5 chrome colored screws to mount the M·AD 824 to the chassis using the #2 Phillips screwdriver, and then install the 6 black rear panel screws in the XLR connectors using the #1 Phillips screwdriver.

Upgrading your LavryBlue

Connect both cables from the new M·AD board to the pins on the M·AD board already installed. The cables just bend over. Make sure that the pins are lined up correctly with the ribbon cable and push the black connectors onto the pins. See Figure 7.

Install any M·DA 824 or Mic Preamp boards, if you are using them. Connect the ribbon cables as you did for the M·AD 824 board, except that the M·DA 824 and Mic Preamp only have one cable. See Figure 8.

Figure 7



Figure 8



Install the additional cards with the hardware supplied in the Installation Kit. The Installation Kit includes the mounting hardware for installing the boards in the chassis, the Rear Panel screws for securing the XLR connectors to the chassis, additional Top Cover screws for the top cover and bottom of the front panel, and the front panel insert for the module.

Using the appropriate screwdriver, install the screws in both the module and the rear panel.

Upgrading your LavryBlue

Remove the protective film from the new front panel insert. Remove the blank panel from the front panel, and slide in the new front panel insert. Make sure that it slides all the way to the bottom of the panel.



Figure 9

Fit the front panel back into position and insert the four *conical head* screws in the rack ears. Verify that the switches all will move correctly. You may need to make small adjustments to the modules to center the switches in the front panels. If you need to adjust the position of the module, the 5 chrome colored screws must be loosened to allow the module to be moved slightly side-to-side. Be certain all five screws are tight when finished.

After the front panel is installed, tighten all screws, turn the unit over, and install the three *undercut head* screws on the bottom of the unit.

Finally, replace the top cover of the unit and install the undercut head screws.

In this tutorial, we've shown you the basics of installing any of the modules we're now shipping for the LavryBlue series of converters. Using this, you should be able to install your new module or modules into your existing chassis.

As always, we have people here who are ready to help you with the installation of your new modules, should the need arise and you have a question or a problem. Please feel free to contact us by email, or by telephone during our normal business hours.

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