



MADI-192 MADI Option Card Installation Guide

The MADI-192 MADI Option Card is a high-channel-count MADI audio interface card for Avid® VENUE | S6L systems. MADI-192 MADI Option cards are installed in E6L engines.

- Up to four MADI Option cards can be installed in an E6L-192 or E6L-144 engine.
- Up to two MADI Option cards can be installed in an E6L-112 engine.

For information on supported Option cards, visit:

<https://www.avid.com/products/venue-s6l-system>

This guide shows how to install a MADI-192 MADI Option Card into an E6L.

Required Materials

- MADI-192 MADI Option Card
- Phillips #1 screwdriver (not included)
- Anti-Static wrist strap (not included)
- Foam or other padded surface to place the card on (not included)

Installing a MADI-192 MADI Card

Installing a MADI-192 MADI Option card in E6L consists of the following steps:

- Removing the E6L engine core
- Installing the card
- Replacing hardware
- Confirming Installation

Removing the E6L Engine Core

E6L Option cards are installed in the E6L engine core, which slides out of the E6L chassis.

To remove the E6L engine core:

- 1 Put on your anti-static wrist band and configure according to its instructions.
- 2 Shut down your system, and disconnect any cables connected to your E6L engine.
- 3 Place your E6L on a table or other flat surface that provides enough room for the E6L engine core to be removed comfortably. Make sure your surface is clear of any debris.

- 4 On the back of the E6L, loosen the four thumbscrews that secure the core to the engine chassis.

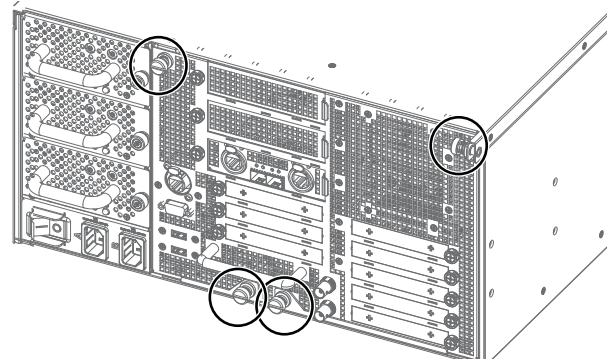


Figure 1. Four thumbscrews on the back of the E6L

- 5 Simultaneously pull the two bottom thumbscrews outward so the latches they are attached to are fully extended, as shown in Figure 2.

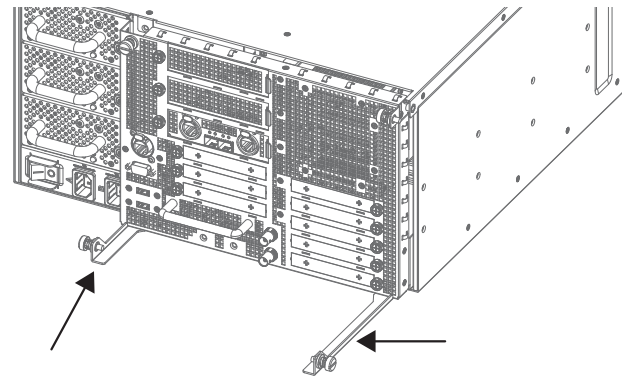


Figure 2. Latches fully extended

- 6 Using the handle, slowly slide the core partially out, locate the interior catch on the right side of the tray, and press it to release the core from the chassis.

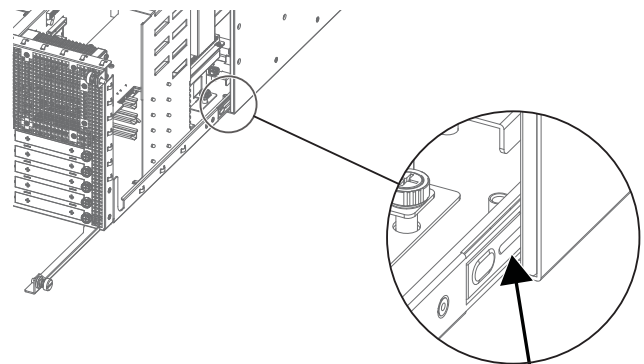


Figure 3. Location of the interior catch

- 7 Slowly slide the core out of the E6L chassis completely and place it on your work surface.

⚠ *The core will not slide out of the E6L chassis until the latches are fully extended and the catch has been released. If you experience any resistance, make sure the latches are fully extended before pulling.*

Installing the Card

The E6L engine core has eight half-length PCIe slots for Option cards.

E6L-192/144 Install MADI-192 cards into Option slots 1–4 only.

E6L-112 Install one MADI-192 card in Option slot 1. If using two MADI-192 cards, the second must be installed in AVB Network slot 3 which requires replacing the faceplate on the second MADI-192 card as explained later in this guide.

When standing at the back of the E6L engine, Option slots 1–5 are at the lower right and slots 6–8 are in the middle (below the AVB Network slots) as shown in Figure 4.

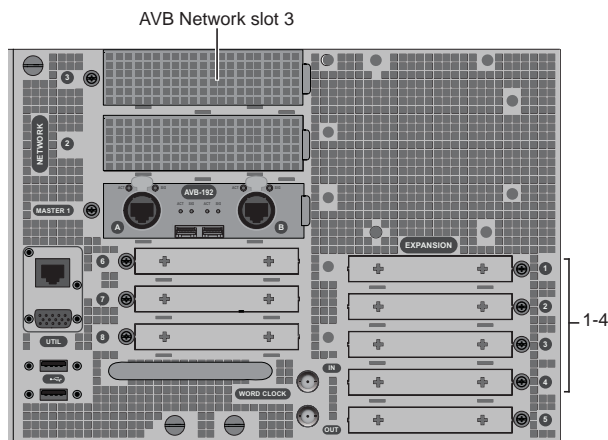


Figure 4. E6L Option card slots 1–4 (lower right) and AVB Network slot 3 (top)

Always install new MADI-192 cards in the lowest numbered available slot. For example, if one MADI-192 card is already installed in Option slot 1, install the next MADI-192 card in slot 2 (E6L-192/144), or into AVB Network slot 3 (E6L-112 only).

The following instructions show a MADI-192 card being installed into Option slot 1 (all E6L engines), as well as how to install a second MADI-192 card into AVB Network slot 3 (E6L-112 only).

Before installing cards in slots 1–4 you must first remove the card retaining bracket.

To remove the card retaining bracket and install the card:

- 1 Looking inside the core from the right side, locate the E6L card retaining bracket.
- 2 Locate the thumbscrew that secures the bracket to the bottom of the unit and loosen it completely.



Figure 5. E6L card bracket thumbscrew

- 3 Locate the two Phillips head screws on the top of the bracket, remove them, carefully remove the bracket, and set them all aside.

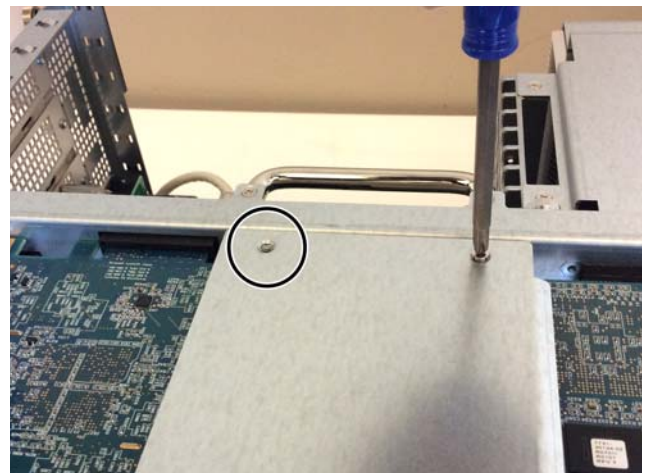


Figure 6. Removing one of two card bracket screws

- 4 Locate the next available Option Card slot below any currently installed Option card(s), and remove the blank faceplate. The faceplate can be recycled or discarded.

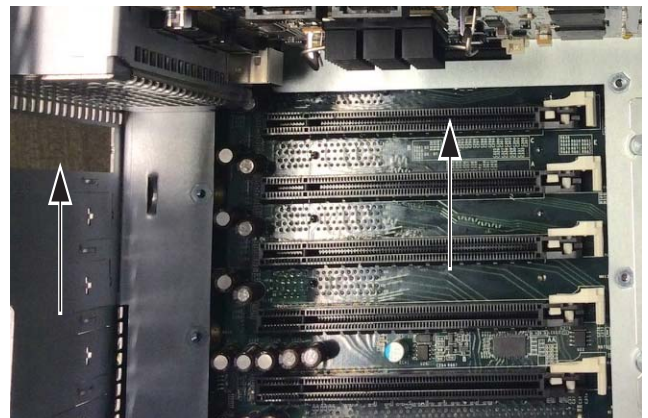


Figure 7. Open Option card slot (right) and blank faceplate removed (left)

- 5 Remove the MADI-192 card from its packaging and place it on your padded surface. Be careful to handle the card by its edges only.
- 6 Optional: Disconnect the power cables connected to HDX cards installed above the Option card slots and tuck them out of the way. It is possible to install MADI-192 cards without disconnecting these cables, as long as you are careful to not stretch the cables or damage their connectors while installing the cards.



Figure 8. Disconnecting the power cable of an HDX card

- 7 Remove the Option card guide bracket by doing the following:
 - Fully loosen its single thumbscrew (shown below).
 - Slide the bracket to the right, towards the front of the E6L, until it clears the two bracket alignment posts.
 - Carefully lift the guide bracket out of the core and set it aside.

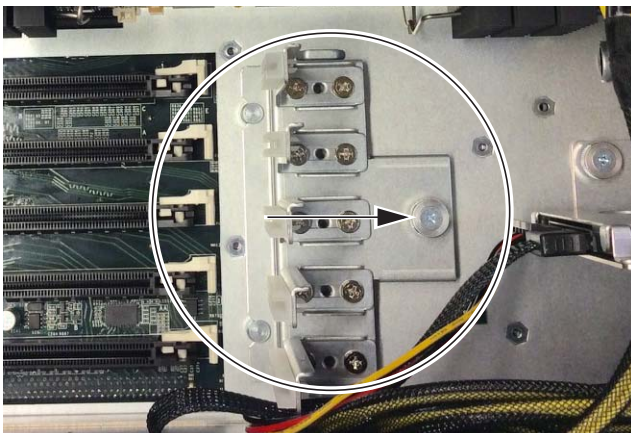


Figure 9. Card guide bracket and its thumbscrew

- 8 Align the MADI-192 card's PCIe connectors with the corresponding PCIe expansion slot, and firmly press the card into the PCIe slot.

Make sure the card is fully seated in the PCIe slot and that the white retaining clip clicks into position.

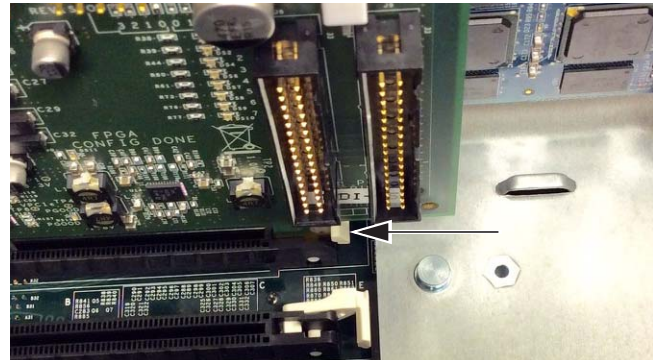


Figure 10. Card retaining clip correctly locked

- 9 Carefully place the card guide bracket back in the core and do the following:
 - Being careful to align the guide bracket with its alignment posts, align its card retaining slots with all Option cards.
 - Slide the bracket to the left (towards the back of the E6L), making sure all cards are correctly secured within the slots on the guide bracket.

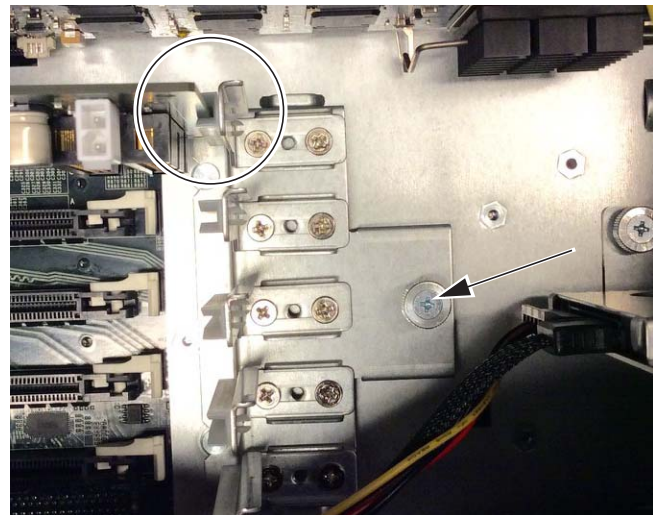


Figure 11. Option card correctly positioned in slot of guide bracket

- 10 Secure the guide bracket to the core by tightening its thumbscrew.
- 11 From the back of the core, make sure the faceplate of the Option card is correctly aligned with the open slot and then secure the card to the core by tightening the captive thumbscrew.

Installing a Second MADI-192 Card into an E6L-112

If installing a second MADI-192 card into an E6L-112, the second MADI-192 card must be installed in AVB Network slot 3.

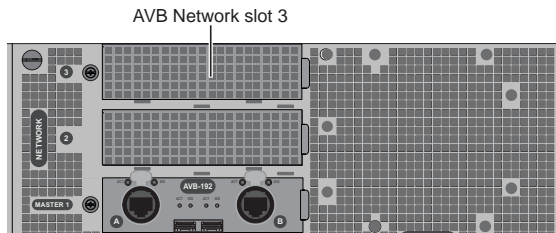


Figure 12. E6L AVB Network slot 3 (top)

The correct faceplate (included with the MADI-192 card) must be installed on the card before installing it in AVB Network slot 3.

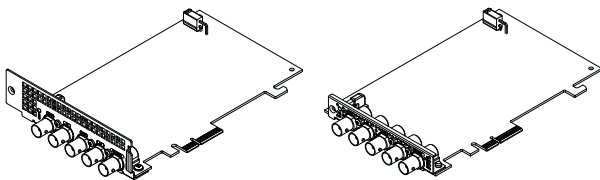


Figure 13. MADI-192 with AVB Network slot faceplate (shown at left) and Option slot faceplate (shown at right)

To install the faceplate for E6L-112 AVB Network slot 3:

- 1 Place the MADI-192 card on your padded work-surface face-down, so you can access the two screws that secure the existing faceplate to the tabs on the card.

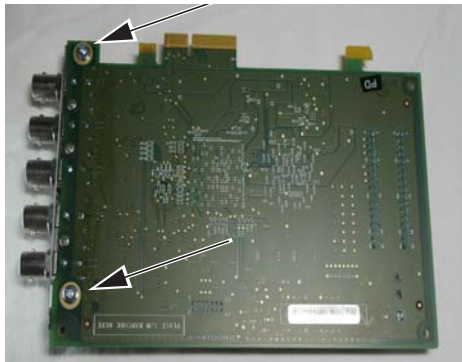


Figure 14. Underside of MADI-192 card showing fasteners to remove

- 2 Using a #2 Phillips screwdriver, remove the two screws that secure the faceplate to the card. Keep the screws nearby to use to secure the new faceplate.
- 3 Remove the 3 screws that secure the faceplate to the front (between the MADI BNC ports). Keep the screws nearby.

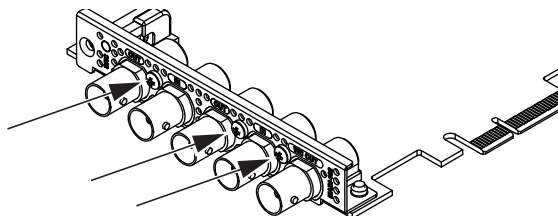




Figure 15. Screws (3x) to remove from faceplate

- 4 Remove the faceplate and set it aside.

 Keep the faceplate in case you want to move this card into an Option card slot in the future.

- 5 Turn the MADI-192 card over so it is face-up.
- 6 Take the new E6L-112-compatible faceplate and slide it over the MADI BNC ports.
 - Make sure that the card mounting tabs sit *below* the card.

 This is different from how the Option slot faceplate is attached to the card; tabs on the AVB Network slot faceplate sit below the card and are secured from above, while those on the Option slot faceplate sit above the MADI-192 card and are secured from below as shown in the following diagram.

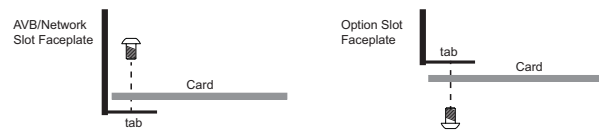


Figure 16. Orientation of faceplate, card, and fasteners for AVB Network slot 3 (shown at left) and Option card slots (at right)

- 7 Secure the faceplate to the front of the card using the 3 screws you removed earlier.

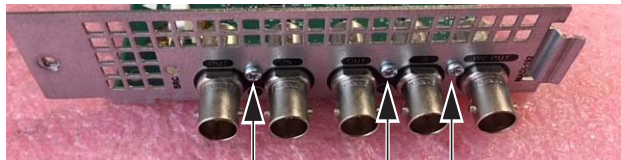


Figure 17. Screws (3x) to secure faceplate

- 8 Secure the faceplate to the card from the top using *only one* of the screws you removed earlier as shown in image, below.
 - The clear lightpipe tube blocks access to the 2nd screw hole; do not attempt to install the 2nd screw into the hole below the lightpipe as it risks damaging the lightpipe/connector).

Keep the 2nd screw with the original faceplate in case you ever need to move the card to another Engine or to Option slot 1.



Figure 18. Top view showing the single fastener to re-install (at right)

To install the MADI-192 card into AVB Network slot 3:

- 1 Hold the card by its edges.
- 2 Inside the unit, place the face of the card into position in the slot, with the back of the card tilting upwards.
- 3 Using two hands, hold the front of the card in place in the slot with one hand, and slowly move the back of the card downwards along the sheet metal until the card is horizontal.
- 4 Once the card is horizontal, make sure the tab on the right side of the faceplate of the card is positioned on the outside of the E6L chassis slot.
- 5 Align the PCIe connector on the card with the corresponding PCIe port, and align the flange on the card with the retaining clip on the PC board.
- 6 Lift the tab on the retaining clip, and then press the card firmly into the PCIe port and clip.

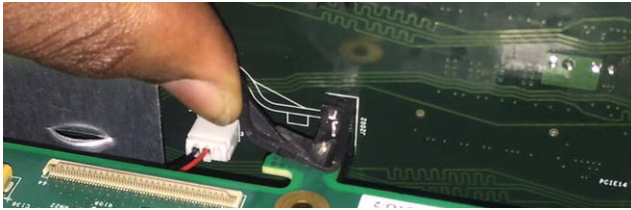


Figure 19. Lifting the tab on the retaining clip

The card should look similar to the following:



Figure 20. MADI-192 card properly seated in the PCIe slot

- 7 Tighten the exterior captive thumbscrew to secure the faceplate of the MADI-192 card to the E6L.
- 8 Proceed to “Replacing E6L Hardware” on page 5.

Additional Information

You can install either a second MADI-192 card or a WSG-HD Waves SoundGrid Option card in AVB Network slot 3 of an E6L-112 engine. You cannot have both a WSG-HD card and a second MADI-192 card installed in an E6L-112 simultaneously.

If you ever want to remove the second MADI-192 card from the E6L-112 and install it into a standard E6L Option card slot (1–4), be sure to re-install the original Option slot faceplate.

Replacing E6L Hardware

After installing the cards, replace the retaining bracket and put the core back into the E6L chassis.

To replace E6L hardware:

- 1 If you disconnected any power cables to DSP cards, reconnect them now. Similarly, if you disconnected cables to any AVB cards, reconnect them now (make sure to reconnect them to their original ports).
- 2 Carefully place the card retaining bracket back into position, making sure to not disturb the surface of the DSP cards in the process or pinch any cables.
- 3 Tighten the captive thumbscrew securing the bracket to the bottom of the E6L engine core.
- 4 Replace the two screws at the top of the retaining bracket.



Make sure the bottom edge of the retaining bracket is aligned evenly with the bottom of the core. If the bracket is misaligned it can prevent the core from sliding easily back into the E6L.

- 5 Slide the core back into the E6L chassis, making sure the connectors face outward.
When the core is fully seated into the chassis, the two latches at the bottom of the chassis should fully collapse.
- 6 Tighten the four thumbscrews to secure the core to the chassis.

Removing an Option Card

If you ever need to remove a MADI-192 card from an Option card slot, do the following:

- Remove the E6L Engine core.
- Remove the card retaining bracket.
- Remove the card guide bracket.
- Completely loosen the captive thumbscrew that secures the faceplate of the card to the back panel of the E6L core.
- To remove an Option card, release its retaining clip using a long, flat head screwdriver (not included) as shown below, pull the card out of its PCIe slot and then carefully lift the card out of the core.

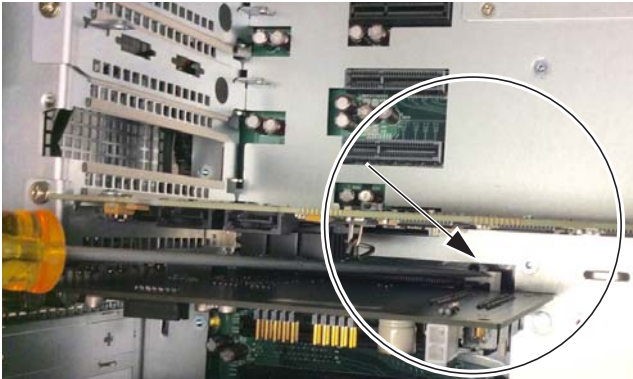


Figure 21. Releasing a card retaining clip

If you ever need to remove a second MADI-192 card from AVB Network slot 3 in an E6L-112 (in order to install a WSG-HD card, for example), do the following:

- Remove the E6L Engine core.
- Completely loosen the captive thumbscrew that secures the faceplate of the card to the E6L chassis.
- Release the MADI-192 card from its PCIe slots by using one hand to lift the tab on the retaining clip to release the card from its clip, then using your other hand to pull the card out of its PCIe port.

Confirming Installation

After installing MADI-192 cards, confirm that you successfully installed them.

To confirm installation:

- 1 Connect power to the E6L, and connect an audio network cable from your S6L control surface to E6L.
- 2 Power on your S6L and E6L.

⚠ *Your S6L system may initiate a firmware update of your newly-installed card. If so, follow the on-screen prompts to ensure a successful installation.*

- 3 On the external VENUE software screen, go to the Options > Devices page.
- 4 In the EXPANSION CARDS section, the newly installed card(s) should appear in their corresponding slot(s).

💡 *In E6L-112 engines, a second MADI-192 physically installed in AVB Network slot 3 is listed in slot 2 under EXPANSION CARDS.*

- 5 If prompted to update firmware, let the update process complete and then power cycle the entire system.