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Adding or removing I/O cards in an AudiaFLEX

It is possible to modify the I/O card configuration of an AudiaFLEX in the field, and Biamp offers individual card kits for this purpose. This article explains how to add or remove I/O cards in an AudiaFLEX, and get it up and running again.

Preparations

Before unplugging the AudiaFLEX, the following steps should be followed:

1. Save a backup copy of the configuration file that is loaded to the AudiaFLEX, if applicable. You can do this by connecting to the Audia system using Audia software, and then disconnecting from the system and choosing File→Save As. If you're having trouble connecting to the Audia system, see Troubleshooting: Connecting to an Audia or Nexia.

2. Perform a "Reset/Initialize" on the AudiaFLEX to clear out its configuration file. You can do this in the Device Maintenance window in Audia software (File→Network→Perform Audia Device Maintenance).

3. Update the firmware of the AudiaFLEX to the latest version available. This helps to avoid firmware version mismatches when adding newer I/O cards to an older AudiaFLEX. Firmware upgrade instructions can be found at this link: Updating firmware on an Audia or Nexia.

Opening the AudiaFLEX

The next step is to open the AudiaFLEX and add/remove/modify the I/O cards as desired.

Remove screws and top cover

1. Unplug all cables (including the power cable) and connectors from the AudiaFLEX and place it on a properly grounded anti-static mat. Ensure that you are properly grounded using an ESD wrist strap. Failure to take proper ESD precautions may cause damage to the I/O cards and/or other internal components of the AudiaFLEX.

2. Using a #1 Philips screwdriver, remove the two screws that attach each I/O card to the chassis. The screws do not need to be removed on channels that do not have I/O cards installed.

3. Remove the screw located between the power entrance and the serial port connector. Remove the three screws along the bottom of the rear-panel chassis.

4. Remove the four screws on each side panel (eight screws total). Do not remove the two screws on the left side (if looking at the rear panel) that are inset from the rest.

5. Remove the three screws from the top lid, located next to the front panel. Then, remove the lid by lifting the top panel from the side panels (placing hands towards the front panel) and pulling the lid towards the rear.

Replacing a card

1. Remove the screw that attaches the I/O card to the main board. Grasp the front and back of the I/O card gently and lift upwards. The card should unseat and come loose.
2. Remove the new card from the anti-static bag and place the old card in the bag.
3. Insert the new card into the appropriate slot, **ensuring that the card's pins align properly with the holes in the header.** There should not be any pins that are not in a hole. Failure to align the pins will damage the card when the unit is powered up.
4. Screw the I/O card into the main board using the previously removed screw.

Adding a card

1. Remove the screw in the slot that the new card will be placed in.
2. Remove the metal plate covering the holes on the chassis for the appropriate slot that the card will occupy. Throw away the two machine screws used to attach the plate to the chassis, along with the metal plate. When replacing the top cover, use the two 4-40 machine screws supplied with the I/O card.
3. Remove the new card from the anti-static bag.
4. Insert the new card into the appropriate slot, **ensuring that the card's pins align properly with the holes in the header.** There should not be any pins that are not in a hole. Failure to align the pins will damage the card when the unit is powered up.
5. Screw the I/O card into the main board using the previously removed screw.

Re-attaching the top cover

1. Place the lid back on the chassis.
2. Ensure that the Ethernet port connectors and male Phoenix connectors properly align with the rear panel before ensuring that the lid fits snug against the chassis.
3. Screw in the sheet metal screws (no washer and has coarse threads) in the holes on the sides and top of the unit (4 on each side, 3 on the top).
4. Using machine screws (has washer and fine threads), insert two screws for each populated I/O card into the I/O cards' threaded brackets.

Modifying and reloading configuration file

Once the I/O cards have been added/removed and the top cover has been replaced, plug the cables back into the AudiaFLEX and power it up. At this point, the configuration file for the system will need to be modified and reloaded to the AudiaFLEX.

1. Open the Audia configuration (.dap) file in Audia software.
2. Go to Tools→Equipment Table. Locate the serial number of the device whose I/O cards have been modified. Click on that serial number to open the drop-down menu, and select "None". Click OK to close the Equipment Table window.
3. Modify the configuration file to account for the I/O cards that have been added/removed from the system.

4. Go to File→Network→Connect to Network to discover the AudiaFLEX on the network. When the System Connect windows appears, click the Close button to close it. If you're having trouble connecting to the AudiaFLEX, see Troubleshooting: Connecting to an Audia or Nexia.

5. Go back to Tools→Equipment Table. Click in the serial number column for the device whose I/O cards have been modified. The drop-down menu should include the serial number of that device. Select that serial number to assign it to the device in the Equipment Table. Click OK to close the Equipment Table window.

6. Go to File→Network→Send System Configuration to send the modified file to the AudiaFLEX.

Further reading

- Troubleshooting: Connecting to an Audia or Nexia
- Troubleshooting: Audia or Nexia with red light on front panel
- AudiaFLEX I/O card order

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