

NOTE TO USER

NI Educational Laboratory Virtual Instrumentation Suite (NI ELVIS™)

Revision C

The information in this document supersedes the fuse information provided in revision A and B of the *NI Educational Laboratory Virtual Instrumentation Suite (NI ELVIS) User Manual*.

Changes in the Protection Board

NI ELVIS Protection Boards revisions A and B have fuses to protect against a short circuit and overcurrent on the voltage rails of the protection board, while revision C of the NI ELVIS Protection Board are protected with a circuit that acts as a resettable fuse. Short circuits or overcurrent conditions shut off the output. Once the fault condition is removed, the LEDs labeled +15V, -15V, and +5V light, to indicate that voltage is present on the voltage rail. If the LEDs do not light after removing the fault condition, disconnect the load and/or cycle the power to the prototype board.

Revision C of the NI ELVIS protection board has one size and value fuse. The two NI ELVIS Variable Power supply fuses are now the same size as the Current HI/LO line fuses (5 × 20 mm).

Replacing the Protection Board

Replace the NI ELVIS Protection Board by completing the following steps:

1. Power on the NI ELVIS.
2. Measure and record the voltage on the +15, -15, and +5 voltage rails while they have no load. You can use the NI ELVIS software or a separate DMM.
3. Verify that the three LEDs light.



Note If the LEDs do not light or voltage is not present on the voltage rail before you install the new protection board, refer to the *NI Educational Laboratory Virtual Instrumentation Suite (NI ELVIS) User Manual* for protection board debugging information.

4. Power off and disconnect the power supply cord of the NI ELVIS workstation.
5. Remove any connected cables and the student board, if present.
6. Loosen the four thumbscrews on the back of the NI ELVIS workstation. The thumbscrews remain attached to the back panel.
7. To separate the protection board from the motherboard, position the chassis with the back side of the workstation facing you. Next, grasp the two lower thumbscrews, and rock the back panel left and right while gently pulling the back panel away from the chassis until the two pieces separate.
8. Remove the four Phillips screws from the protection board, and set them aside.
9. Remove the protection board from the back panel.
10. Place the new protection board in the same location on the back panel as the protection board you removed.
11. Screw the new protection board into position with the four Phillips screws you removed in step 8.
12. Place the protection board you removed in the antistatic bag from which you removed the new protection board. The protection board you removed is now ready for storage.
13. Reconnect the back panel and protection-board-assembly cable, and tighten the four thumbscrews.
14. Connect the power supply cord.
15. Power on the NI ELVIS workstation.
16. Verify that all three LEDs light.
17. Measure the voltage on the +15, -15, and +5 voltage rails, and compare these readings to those recorded for the old protection board. The new protection board voltage readings should be close to the voltage output of the old protection board with no load and within specifications. Refer to the *Specifications* section of the *NI Educational Laboratory Virtual Instrumentation Suite (NI ELVIS) User Manual*, for voltage rail voltage specifications.



Note If the LEDs do not light or the voltage on the voltage rails is not within specifications after you install the new protection board, contact NI by going to ni.com/support.

NI ELVIS is now ready to use.

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