

## **This is a Discontinued Product**

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Contact Kollmorgen Customer Support at  
1-540-633-3545 or email us at [support.kollmorgen.com](mailto:support.kollmorgen.com)  
if assistance is required.

# PC830 Firmware Upgrade Instructions

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**Before you begin** Remove AC power from the drive and **wait 5 minutes** until the bus discharges.



**Warning**

*High voltages are present on the PC830 connections. Follow the instructions outlined below to avoid an electrical shock.*

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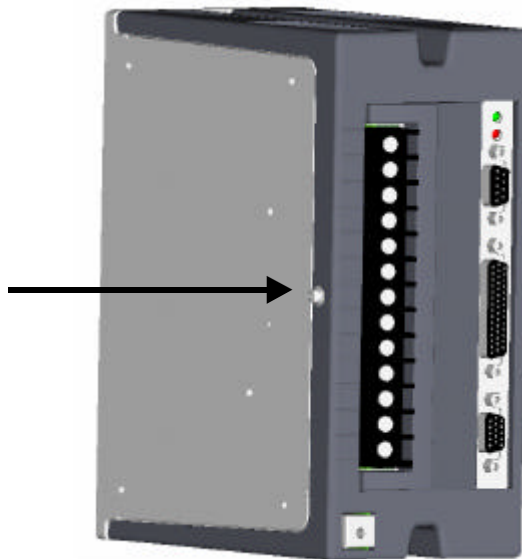
**Tools required**

- Small flat head screw driver
  - Medium phillips screwdriver
  - Chip extraction tool (supplied in upgrade kit)
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**Procedure**

There are static sensitive devices inside the drive. Perform installation in static free environment.

1. Unconfigure drive to clear non-volatile (NV) memory.
2. Remove all external connections from the drive.

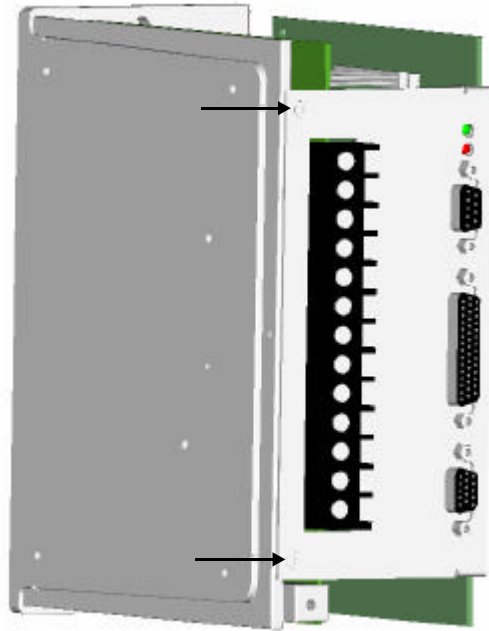


3. Remove the screw that attaches the plastic cover to the aluminum heatsink. Make sure the drive has been powered down for at least 5 minutes.
4. Use a small flat head screwdriver to gently lift the two plastic tabs that hold the cover in place. Once both plastic tabs are free from the aluminum tabs the cover should slide freely.

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**Procedure  
(cont'd)**

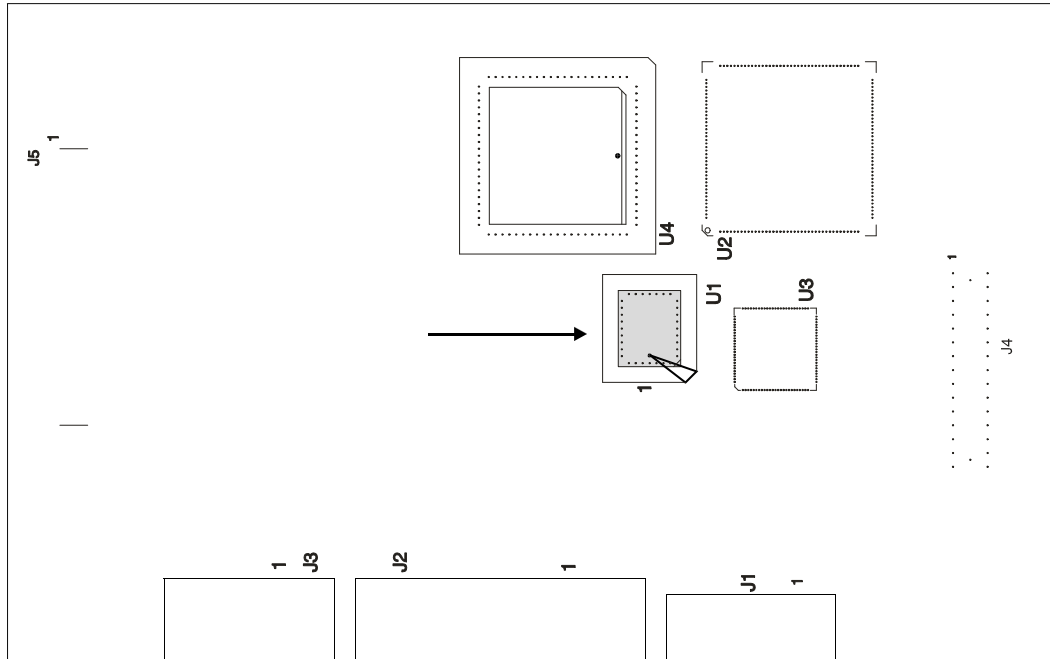
5. Remove the (2) screws that attach the control board to the aluminum heatsink.



6. Move the control board gently from side to side while pulling upward away from the drive.
7. Once the power board header is free from the control board socket, maneuver the board and attached bracket to free them from the drive.
8. Place the control board, component side up, on a flat surface.

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## Location of U1



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## Procedure (cont'd)



1. Use the extractor tool supplied to remove the chip from the board as shown in the figure above.

**Note:** *The prongs on the tool should be inserted into the diagonal slots in the socket and under the chip.*

2. Install the new chip. The flat corner of the chip designates pin 1. It is important when installing the chip that the orientation of pin 1 is correct.

### **Caution**

**Failure to orient the chip properly could result in a damaged chip and/or control board.**

3. Once the chip is oriented properly, push down firmly on the chip until it snaps firmly into the socket.
4. Replace the control board using care to make sure all the pins from the power board align properly with the control board socket.
5. Re-install the two screws that attach the control board to the cover.
6. Slide the plastic cover back on until the plastic tabs latch with the aluminum tabs and replace the screw to secure the cover. When sliding the cover back on pay careful attention to the slots in the cover. These should align with the control board and the cover should slide on easily.

**Note:** *Ensure that the plastic tabs on the side of the cover, as well as the tabs on the top and bottom of the cover, line up with the heatsink.*