

Z-AXIS MOTOR COOLING KIT INSTALLATION

1500MX

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Purpose

This document provides instructions on addressing an issue related to potential overheating of the Z-axis servo motor, which could affect your machine's performance. We've identified that certain machines may experience higher-than-normal motor temperatures during extended or intensive use when operating in warmer environments. You can effectively prevent overheating by installing this cooling assembly with dual fans and updating PathPilot to v2.11.2 or later, which continuously monitors motor temperatures.

Required Tools

- 8 mm combination wrench
- Flat-blade screwdriver, small
- Metric hex wrench set

Procedure

⚠ WARNING! Electrical Shock Hazard: You must power off the machine before making any electrical connections. If you don't, there's a risk of electrocution or shock.

1. Power off the machine and the PathPilot controller.
 - a. Push in the machine's red Emergency Stop button, which removes power to motion control.
 - b. From the PathPilot interface, select **Exit**.
 - c. Turn the Main Disconnect switch to **OFF** on the side of the electrical cabinet.
2. From the rear of the machine, remove the two screws attaching the enclosure to the top of the column casting with a 4 mm hex wrench. Set the screws aside.



Figure 1: Screws attaching the enclosure to the column casting.

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3. Lower the fan assembly down into the space between the Z-motor and the column.



Figure 2: Lowering the fan into the space between the motor and the column.

4. Secure the fan assembly to the column with the two screws that you previously set aside.



Figure 3: Fan installed.

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5. From the inside of the electrical cabinet, loosen the two nuts securing the cable gland with an 8 mm combination wrench.



Figure 4: Cable gland nuts.

6. Route the cable from the fan over to the top of the electrical cabinet and into the cabinet through the cable gland.
7. Route the cable toward the X2 terminal block.

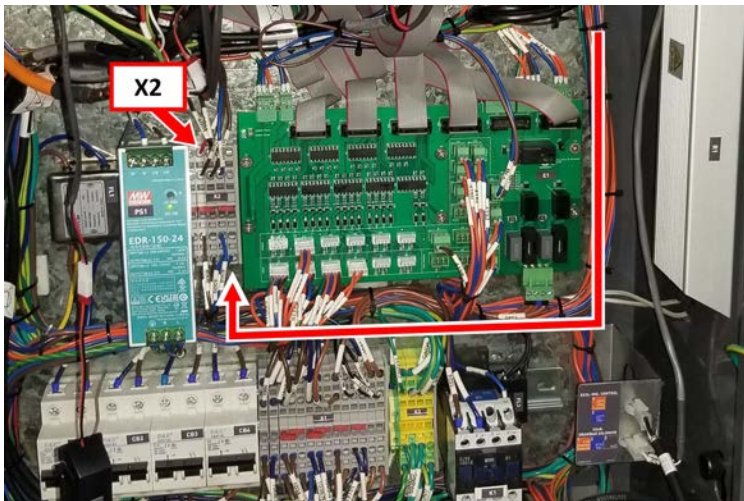


Figure 5: X2 terminal block in the electrical cabinet.

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8. Connect the wires from the cable to the X2 terminal block with a small, flat-blade screwdriver as follows:
- White** wire labeled **4218** to X2.2:3.
 - Black** wire labeled **4219** to X2.4:3.

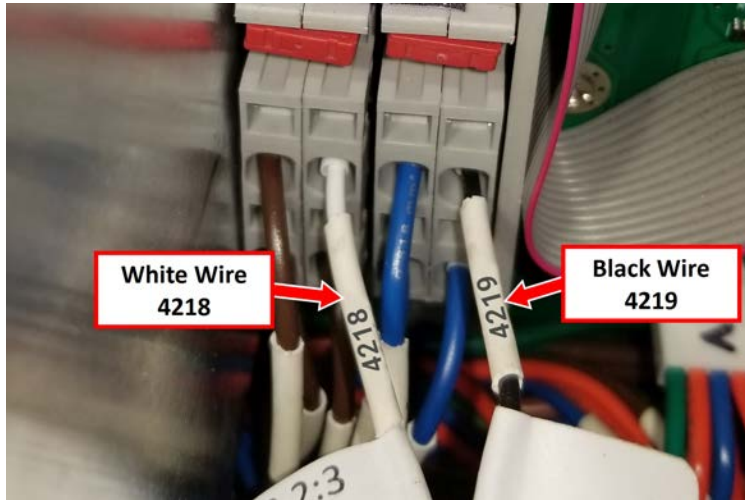


Figure 6: Fan cable wires connected to the X2 terminal block.

9. Lay the excess cable along the wire harness and secure with cable ties.