

# Z-MAX 24 and 48 Circuit Relay Bus Card Power Jumper Settings

**Product:** Z-MAX Product Family 70123-200-xxx      **Article ID:** 033009-RLL/AM-01

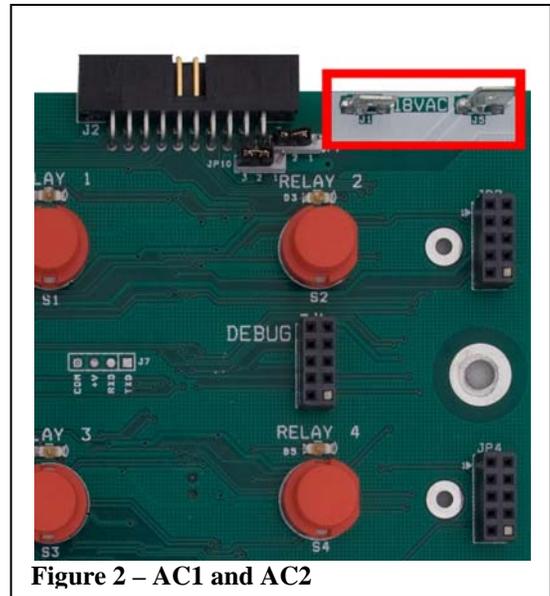
**Date:** March 30, 2009

**Issue:** No heartbeat on Relay Bus Card(s) after replacement card has been installed.

**Solution:**



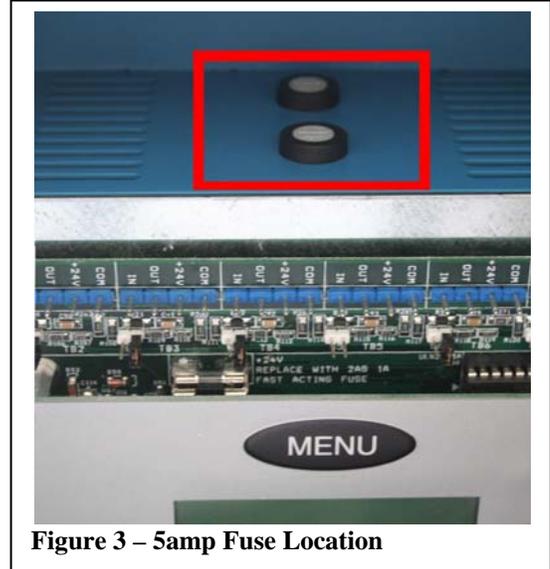
**Figure 1 - Relay Bus Card 1**



**Figure 2 – AC1 and AC2**

**\*For 24 Circuit Cabinets\***

**Step 1:** Verify by tracing wiring from the transformer to CPU and then to the first relay bus card (figure 1) to ensure proper power connections. **Expected Results:** AC1 and AC2 (figure 2) on the first relay bus card (figure 1) are receiving 18 Volts AC. If no voltage present, check 5 amp fuse located at the top of the cabinet (figure 3). If blown, replace fuse with 5 amp slow blow fuse (figure 7).



**Figure 3 – 5amp Fuse Location**

**Step 2:** Verify that the first relay bus card (figure 1) has JP9 and JP10 (figure 4) jumped between the middle and right most posts. Expected Results: Power will pass through AC1 and AC2 (figure 2). Bus card should power up. Heartbeat LED will blink (figure 5).

**Step 3:** Verify that the second and third relay bus cards (from the top) have JP9 and JP10 jumped between the middle and the left most posts (figure 6). Expected Results: Power will pass through the data bus connection (above). Bus card should power up. Heartbeat LED will blink (figure 5).

**Step 4:** If no power, contact the factory.

**\*For 48 Circuit Cabinets\***

**Step 1:** (a) Verify by tracing wiring from the first transformer to the first relay bus card (figure 1) to ensure proper power connections. (b) Verify by tracing wiring from the second transformer to the CPU and then to the fourth relay bus card (figure 1) to ensure proper power connections. Expected Results: AC1 and AC2 (figure 2) on the first and fourth relay bus cards are receiving 18 Volts AC. If no voltage present, check 5 amp fuses located at the top of the cabinet (figure 3). If blown, replace fuse(s) with 5 amp slow blow fuse(s) (figure 7).

**Step 2:** Verify that the first relay bus card (figure 1) has JP9 and JP10 jumped between the middle and right most posts (figure 4). Expected Results: Power will pass through AC1 and AC2 (figure 2). Bus card should power up. Heartbeat LED will blink (figure 5).

**Step 3:** Verify that the second and third relay bus cards (from the top) (figure 1) have JP9 and JP10 jumped between the middle and the left most posts (figure 6). Expected Results: Power will pass through

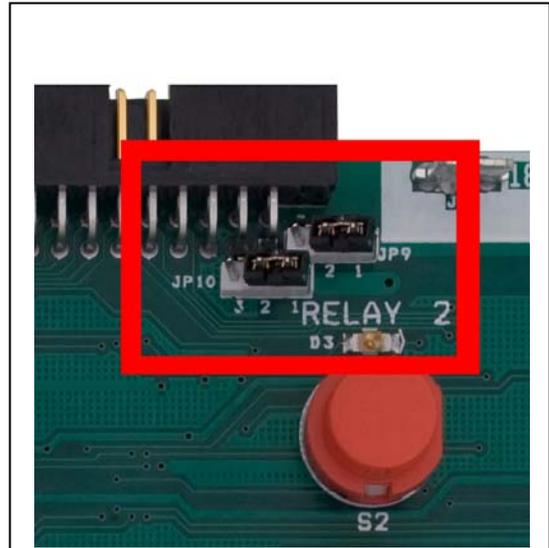


Figure 4 – JP9 and JP10 (right posts)



Figure 5 – Heartbeat LED

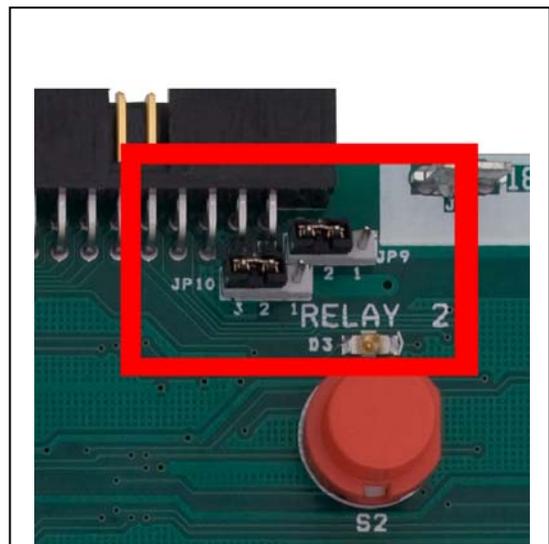


Figure 6 – JP9 and JP10 (left posts)

the data bus connection (above). Bus card should power up. Heartbeat LED will blink (figure 5).

**Step 4:** Verify that the fourth relay bus card (figure 1) has JP9 and JP10 jumped between the middle and right most posts (figure 4). Expected Results: Power will pass through AC1 and AC2 (figure 2). Bus card should power up. Heartbeat LED will blink (figure 6).

**Step 5:** Verify that the fifth and sixth relay bus cards (from the top) (figure 1) have JP9 and JP10 jumped between the middle and the left most posts (figure 6). Expected Results: Power will pass through the data bus connection (above). Bus card should power up. Heartbeat LED will blink (figure 5).

**Step 6:** If no power, contact the factory.

**Contact:** If you have any questions or concerns, please call LMS technical support at (800) 959-6004.



**Figure 7 – 5amp Slow Blow Fuse and Housing**