



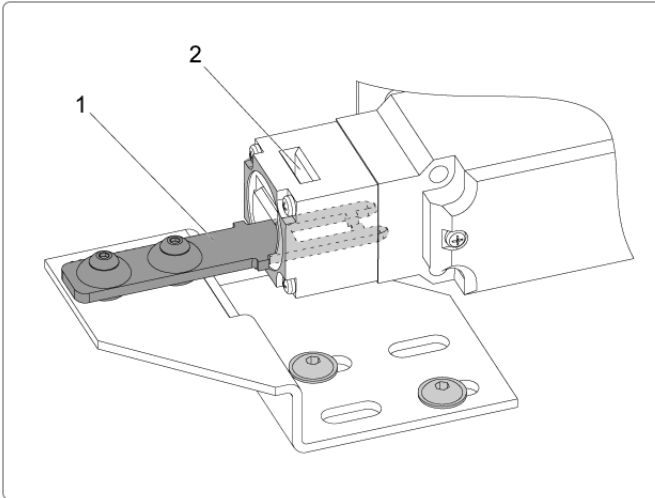
# Electrical Safety Door Interlocks - How it Works and Troubleshooting Guide

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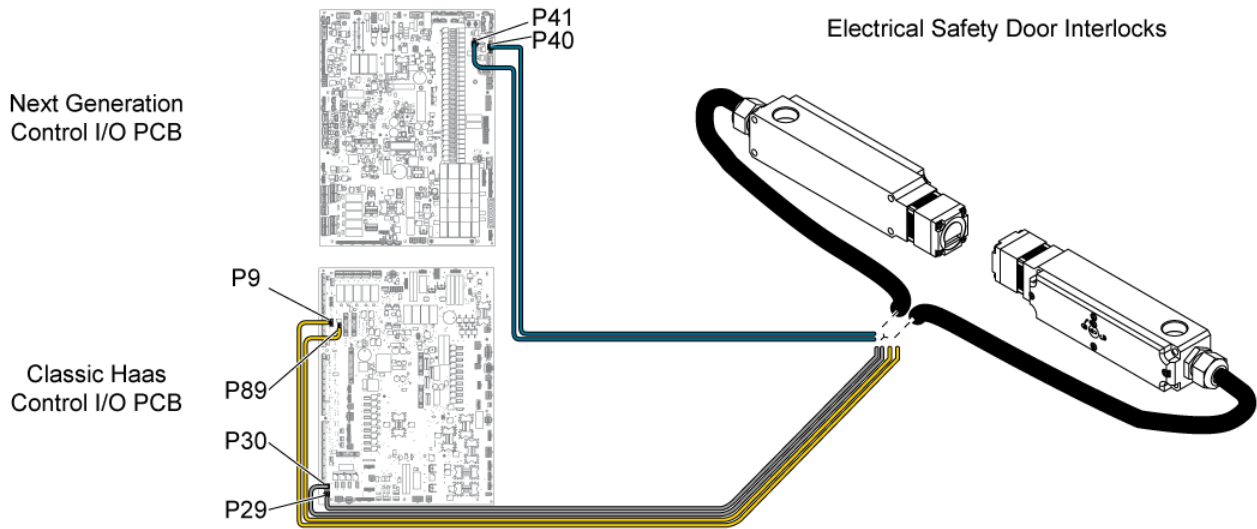
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## How it Works



Door Interlock systems lock the front doors when the machine is in use. The electrical interlock switch is comprised of a solenoid, a locking mechanism [2] and a locking key [1]. When a program is in operation, power is applied to the solenoid in the interlock switch, which locks the key inside the switch and locks the door. When the program stops, power is removed, the solenoid is de-energized, and the key is unlocked, which allows the door to open.

A key switch on the side of the control pendant allows you to select a lock/run or a unlock/setup mode. Each mode affects how the machine operates when the doors are opened. Refer to your Operator's Manual for more information.



Symptom	Possible Cause	Corrective Action	Section
Alarm <b>223</b> DOOR LOCK FAILURE	Worn components	Replace the switch head	1
	The switch or key misaligned	Check the switch and key alignment	2
	No power to the switch	Measure the voltage at the I/O PCB	3

## Section 1



**Symptom:** Alarm **223** DOOR LOCK FAILURE

**Possible Cause:** Worn components

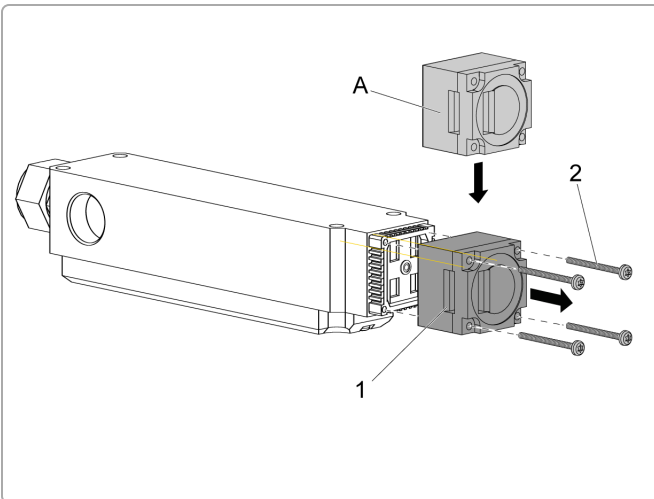
**Corrective Action:**

If you see damage or wear on the switch, it must be replaced. Damage is typically from misalignment. Go to Section 3 to align the door lock.

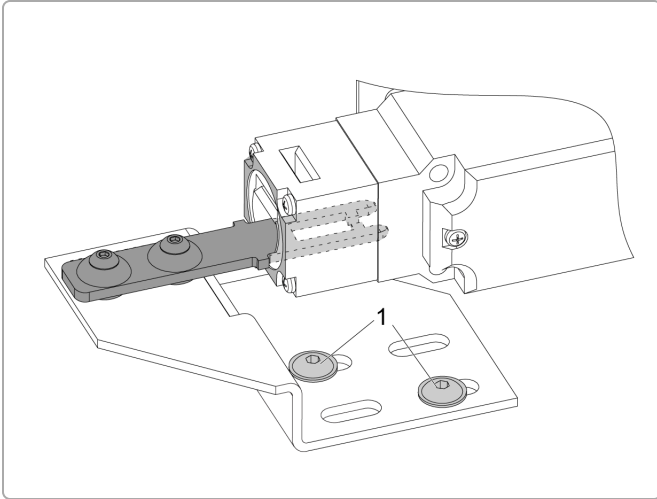
Replace the door interlock switch head if damaged. This can be done to EUCHNER switches that have a part number that ends with a K, N, or M.

Remove the old interlock head [1] from the actuator body. Install the new interlock HEAD [A]. Use a Torx driver to tighten the (4) screws [2]. Do not over-tighten the screws.

**Test the interlock:** Close the doors. Run the spindle at more than 1000 rpm. Make sure the doors lock.



## Section 2



**Symptom:** Alarm **223** DOOR LOCK FAILURE

**Possible Cause:** The switch or key misaligned

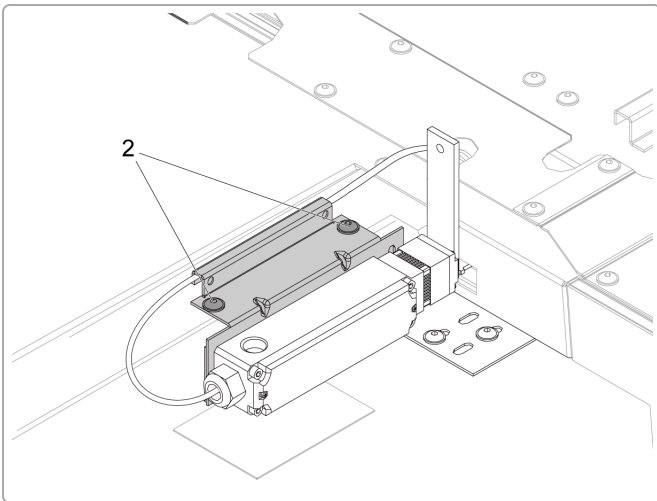
**Corrective Action:**

Inspect the door rollers and tracks. Make sure there is no contamination or loose components.

Check all interlock components and align them if necessary.

Close the doors. Loosen the (2) screws [1] enough so the bracket can move. Open and close the door. Tighten the screws.

If further alignment is necessary, repeat the process above for the (2) screws [2] that hold the sensor to the machine.



## Section 3

**Symptom:** Alarm **223** DOOR LOCK FAILURE

**Possible Cause:** No power to the switch

**Corrective Action:**

- Run the spindle at 100 rpm, then measure the voltage at the I/O and the door lock solenoid.
- Verify that voltage is present at connectors (P29 and P30 on a Classic Haas Control (CHC), or P40 and P41 on a Next Generation Control (NGC)) when the door is closed and locked.
- If there is not 120 VAC, troubleshoot the I/O PCB.