

NGC I/O PCB Troubleshooting Checklist

Technician		Cell#	
Serial Number		Date	
Model			

Options Added to the machine and I/O PCB

1.-	
2.-	
3.-	
4.-	
5.-	

Why is the PCB being replaced?

1a. What alarms are generated?	1b. Does the alarm reset?
1c. When does the Alarm occur?	
2. What is the Machine's software version ?	
2a. I/O Firmware version at the time of the alarm?	
2b. Have you updated the I/O and TC PCB Firmware to the latest version?	
2c. Have you update the machine to the latest SW version?	
2d. Are any breakers on the PSUP PCB tripped?	

3. Other - Describe the issue:

Mandatory Troubleshooting

4. Measure and note the voltage levels at the following PCBs and Connectors

I/O P55 red-black	I/O P55 black-white	I/O P55 white-red	PSUP P11 red-blk	PSUP P11 wht-blk	PSUP P11 wht-red

Observe and note the status of the following LEDs in the I/O PCB (ON/OFF/Blinking)

LE1 24V	LER2 Traffic	LE3 5V	LE5 12V	LE7 1Khz Loop	Any other LED on?

- | | |
|--|--|
| 5. Is the machine equipped with a CAN Lube Panel PCB? If so, is setting 9005.001 enabled? | |
| 6. Is the machine equipped with smart CAN Autodoor, if so, is setting 9013.001 enabled? | |
| 7. Is the machine equipped with CAN E-Vise system, if so, is setting 9011.001 enabled? | |
| 8. Is the machine equipped with CAN spindle head PCB? If so, is setting 9007.001 enabled? | |
| 9. What system driven by the I/O PCB presents the problem? | |
| 10. What inputs and outputs are associated with the system you are troubleshooting | |
| 11. What voltage is used by the system you are troubleshooting? | |
| 12. What cables are associated with the system you are troubleshooting? | |
| 13. Have the cables associated with the system you are troubleshooting been inspected and reseated? | |
| 14. For an I/O Communication alarm, has the ethernet cable at J4 been inspected, tested and re-seated? | |
| 15. For SMTC Issues on non-SS machines, what is the firmware version on the SMTC Module? | |
| 16. Have the cables from the SMTC module been tested and reseated? | |
| 17. For SMTC Sensors, have you tested the proximity switches and observed the feedback on the diagnostics page? | |
| 18. For Analog input issues, have you unplugged one input at a time and observed the gauges page? | |
| 19. For Ground Fault detected alarms, what is the machine doing when the alarm occurs? | |
| 20. For E-stop issues, have the e-stop jumpers at JP2 and P12 been inspected? | |
| 21. For maquinesequipped with a ROBOT, have all of the cables associated with the option been inspected and reseated? | |
| 22. For CRC error alarms, does the Main CRC code and Factory CRC code, as listed in the I/O config page, match? | |

Notes/Observations:

Attach this report, an error report, and any relevent documentation to a service notification in the Haas Service App.