

Foot Pedal - Troubleshooting Guide - NGC

LAST UPDATED: 04/18/2024

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Introduction



The foot pedal allows the operator to manually perform the following hydraulic functions:

- Chuck Clamp and Unclamp
- Steady Rest Clamp and Unclamp
- Tail Stock Positioning
- Tailstock Quill Positioning

Foot Pedal Inspection



To check if the foot pedal is actuating the hydraulic device follow these steps:

- Push [PARAMETER/DIAGNOSTIC] button on the control.
- Scroll to I/O tab and check the foot pedal input bits, the name will be dependent on which foot pedal is being used.
- If the value isn't toggling from 1 to 0 when pressed, then the hydraulic device is not being actuated.

Symptom Table

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
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The foot pedal is not actuating the hydraulic device.	Metal chips / debris preventing full travel	Check/Clean under the foot pedal and verify that the foot pedal goes all the way down.
	Cables are damaged or not properly connected.	Make sure there is no visible damage to the cables and that they are properly connected. If there is no visible damage, see foot pedal cable inspection section below.
	The pedal spring is broken.	Check pedal spring for damage and check for tension. Replace the pedal if necessary.
	The switch inside the pedal is damaged.	Make sure there is continuity across the switch and replace the switch if there is none. See foot pedal switch inspection section below.
	The metal flag is not actuating the switch.	Check the foot pedal switch flag when the pedal is actuated, make sure the metal flag actuates the switch. See foot pedal flag adjustment section below.

Foot Pedal Cable Inspection

Corrective Action: If there is no visible damage then you can jump the pins at the connection where the foot pedal connects to the sheet metal.

- If the hydraulic device does not actuate then you need to jump the pins on P19 on the I/O board.
 - If the hydraulic device now actuates then you need to ohm the cable from the enclosure to the I/O board. Replace the cable if it fails the ohm test.
- If the hydraulic device still does not actuate then you need to diagnose the I/O board. Refer to the I/O PCB Troubleshooting Guide.

Foot Pedal Switch Inspection



Corrective Action: To check for this you will need take the cover off of the pedal. Once the cover is removed, use a voltmeter and toggle the switch[1] with your finger to check for continuity across the switch. If there is no continuity the switch will need to be replaced.

Foot Pedal Flag Adjustment



Corrective Action: If the flag is not toggling the switch, then you need to adjust the flag. To adjust the foot pedal flag remove the cover and the switch assembly from the pedal. Remove the metal flag and use a clamp and tool to bend it. Reattach the switch assembly and press on the pedal and check for continuity to ensure the switch is toggled. If it is still not actuating continue to bend the metal flag until the switch is toggled.