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## Frequently Asked Questions

Date Raised: 15 Jan 2021

Date Amended:

Safe practices should always be employed to ensure the Health and Safety of yourself, employees and customers (if applicable) Refer to product manuals, exploded drawings and our website if further assistance is required, or contact us on [service@teknatool.com](mailto:service@teknatool.com)

## How to Diagnose a Power Issue on a NOVA DVR Saturn

### Tools Required:

- Phillips head screw driver
- Recommended: Multimeter or Megger tester

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| 1 | <b>Important:</b> Unplug the lathe from the power socket, turn the power switch off, and wait for two minutes for the capacitors to drain. |
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### Checking the HMI Panel:

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| 2 | Loosen the four screws holding the HMI panel onto the headstock. |
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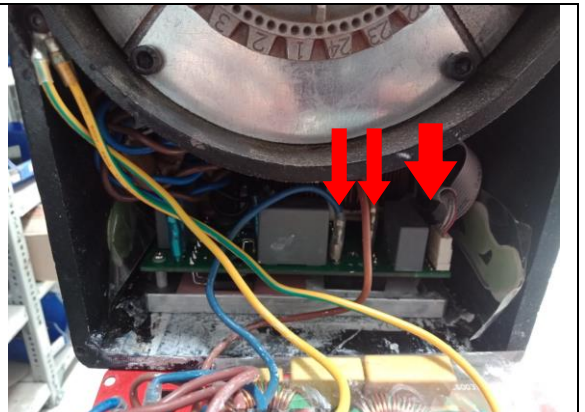
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| 3 | Check the back of the HMI panel and plug any loose cables in. |
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Ensure that the grey HMI ribbon cable is present and connected to the panel.

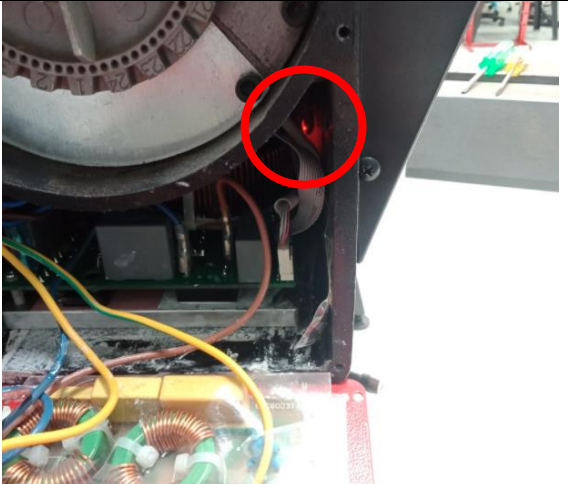


If you plugged in any loose cables, then your issue may be fixed - otherwise continue to step 4.

### Checking the Main Control Board:

4	<p>Double check that the lathe is unplugged from the power supply.</p> <p>Flick the switch on the back panel to its "ON" state <b>without</b> connecting the lathe to the power.</p>	
5	<p>Using the Phillips head screw driver, remove the screws holding the red cover plate in place.</p> <p>Without disconnecting any wires, rest the cover plate nearby so that you can see into the headstock cavity.</p>	
6	<p>Check that the two AC power leads (pictured: Blue and Brown) are connected to the control board.</p> <p>Check that the other end of the HMI ribbon from earlier is plugged in on the right side of the board.</p>	


7	<p>Plug the lathe into the power and turn the power on at the wall.</p> <p><b>CAUTION:</b> Do NOT touch the exposed electronics whilst the lathe is plugged in.</p>	
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8	<p>Check that there is a red LED light emitting from the far-right corner inside the headstock.</p>	
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9	<p>Turn the lathe off <b>at the wall</b> and unplug the power cable.</p> <p>Wait for two minutes before putting the cover plate back on.</p>
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If the red LED turned on in step 7 then control boards will need to be repaired or if the lathe turns on then the issue has been resolved.  
Otherwise continue to step 10:

#### Checking the EMI Filter:

10	<p>Double check that the lathe is unplugged from the power supply.</p> <p>Flick the switch on the back panel to its "ON" state <b>without</b> connecting the lathe to the power.</p> <p>Flick your multimeter or megger tester to continuity mode (Marked by a sideways WIFI signal icon).</p>	
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11	<p>Contact the one of the probes to the Line and Neutral prongs on the power plug.</p> <p>Keep the probe contacted whilst performing the next step</p>	
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12	<p>Unplug the two AC power leads from the main control board.</p> <p>Stick one lead into either of the two cable heads. The EMI filter is in good condition if the multimeter or megger tester beeps. Repeat this step for the other power lead.</p>	
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13	<p>Replace the power leads onto their spade terminals (in any polarity) and screw the cover panel back onto the headstock.</p>
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If the multimeter did not beep for either of the power leads in step 12, then the EMI filter or fuse will need to be replaced.