

**Teknatool International Limited**

7D Dallan Place, Rosedale, Auckland, New Zealand  
Tel: +64 09 477 5600 Fax: +64 477 5601

Email: [service@teknatool.com](mailto:service@teknatool.com)

Website: [www.teknatool.com](http://www.teknatool.com)



## Frequently Asked Questions

### How to remove and replace Main Control Board & Heatsink Assembly on the Voyager/Vulcan

Date Raised: 19  
April 2018

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)

Date Amended

To remove or replace the Main Control Board & Heatsink Assembly on the NOVA Voyager/Vulcan:

#### Required tools:

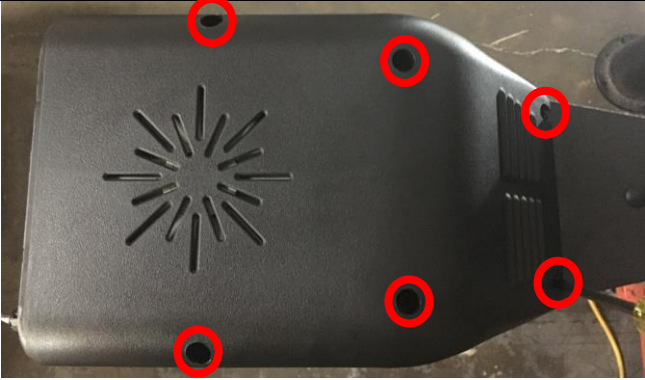

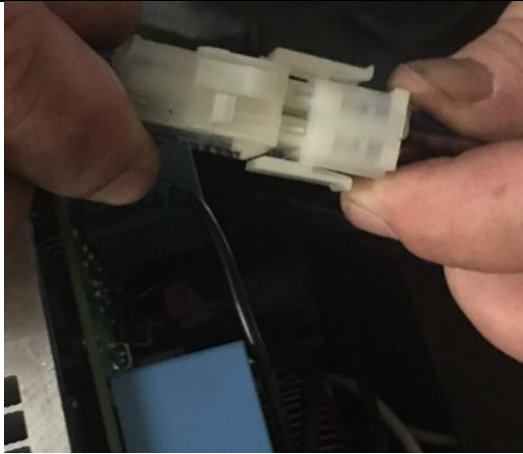

- 1 x Stubby (Short) Philips Screwdriver
- 1 x Phillips Screwdriver
- 1 x Needle Nose Pliers

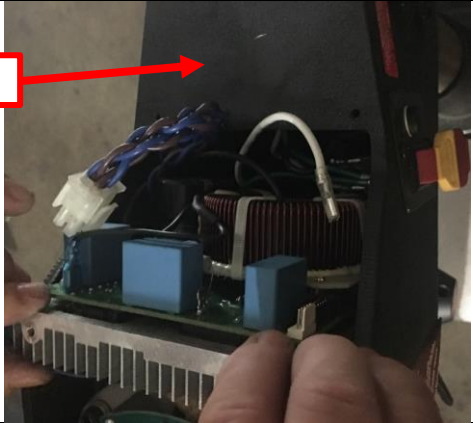
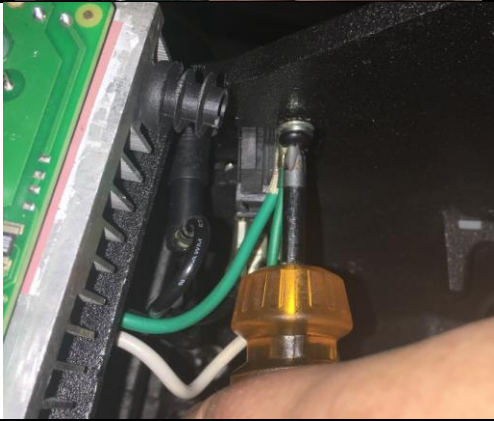
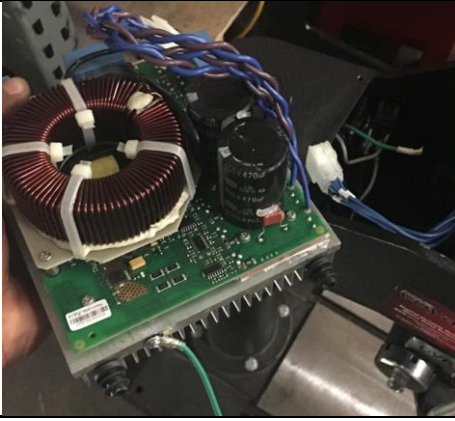



#### Procedure:


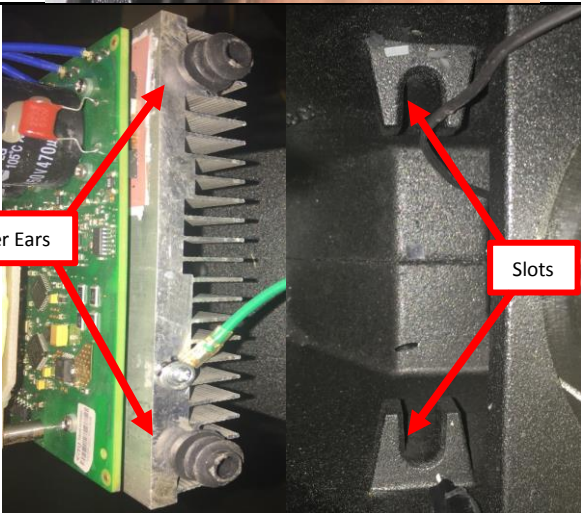

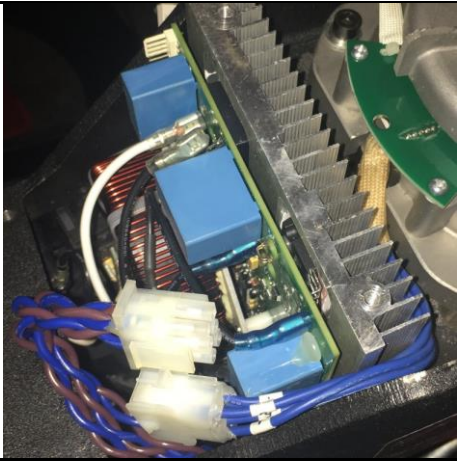
*PLEASE NOTE THE FOLLOWING PROCEDURE IS TO BE ONLY DONE BY A TEKNATOOL SERVICE AGENT OR A QUALIFIED ELECTRICIAN*




Step No.	Description	Image
<b>Removal</b>		
<b>1.</b>	IMPORTANT: Ensure the machine is unplugged from main power and has been for at least 2 minutes before beginning procedure.	

<b>2.</b>	Unscrew the 6 Phillips screws (circled) and remove the top cover.	 A black plastic top cover of a device. It features a circular fan grille on the left side. Six Phillips screws are circled in red, indicating they need to be removed. The screws are located at the top, bottom, and right edges of the cover.
<b>3.</b>	Unplug the Rotor Position Sensor (RPS) connector and 10 pin ribbon cable from the Main Control Board.	 A close-up view of a hand unplugging a white 10-pin ribbon cable from a blue connector on a circuit board. The circuit board is green and has various components, including a black heat sink.
<b>4.</b>	Disconnect the 6-Pin Molex Cable.	 A close-up view of a hand disconnecting a white 6-pin Molex cable from a blue connector on a circuit board. The circuit board is green and has various components, including a black heat sink.
<b>5.</b>	Using Needle Nose Pliers, disconnect the black and white cables.	 A close-up view of a hand using needle nose pliers to disconnect a black and white cable from a blue connector on a circuit board. The circuit board is green and has various components, including a black heat sink.

6.	Slide the Main Control Board assembly out from the casting and set it on the flat side of the drill press.	
7.	The assembly cannot be fully removed yet because there is a ground wire connected to the casting. Using a Stubby Philips Screwdriver, remove the screw. Make sure not to lose any of the washers	
8.	The assembly can now be removed.	
Replacing		
9.	<p>Obtain a new Main Control Board assembly and slide the ground wire to the screw in the following order:</p> <ul style="list-style-type: none"> <li>• Washer</li> <li>• Ground Wire (from Main Control Board)</li> <li>• Ground Wire (from plug)</li> <li>• Lock Washer</li> </ul>	



<b>10.</b>	Locate the threaded hole inside the casting and screw in the ground wires.	
<b>11.</b>	The Main Control Board has two rubber ears on the heatsink. These ears should engage into the slots inside the casting.	
<b>12.</b>	Slide the assembly into the slots (heatsink side should face towards the front of the drill press).	
<b>13.</b>	Fold the Molex cable (from the drill press stator) around the heatsink (as shown in the picture). To ensure the assembly is secure, rock the board back and forth. There should be some movement which will be elaborated in Step 17.	

14.	Slide the 10-pin cable into the groove.	
15.	Plug the Rotor Position Sensor (RPS) connector and 10-pin ribbon cable into the Main Control Board.	
16.	Line up the two center holes on the top cover with the holes on the heatsink and fasten with 2 screws.	
17.	As mentioned in Step 13, there should be some movement with the heatsink. Since the top cover is bolted to the heatsink, maneuver the cover until the remaining 4 holes line up. Lightly fasten with remaining 4 screws until hand tight.	