

Installing the PRT V4g Control Board

Upgrade for an Existing PRT Standard Control System



Driver color may vary – Current driver color is **RED**

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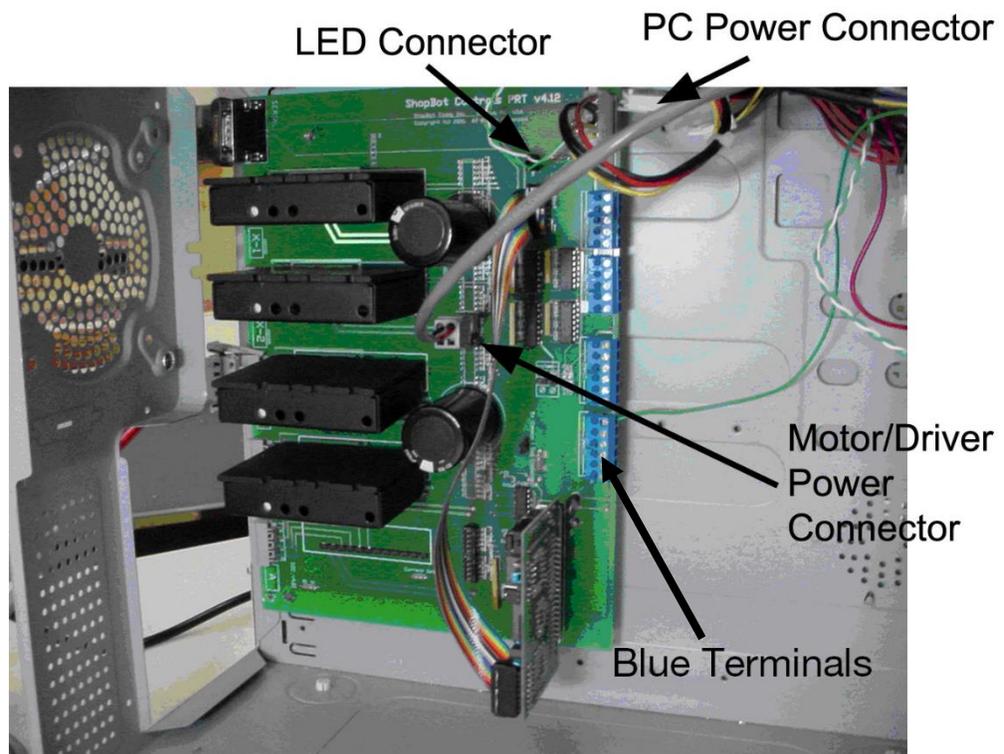
Introduction

The ShopBot PRT Version 4g Control System is a drop-in replacement control board, card, and drivers for existing ShopBot PRT CNC Tools. This system will bring faster, more reliable cutting and positioning to the PRTstandard.

To receive the rebate, return the current PRT control board and card to ShopBot Tools in the packaging for the PRT version 4g upgrade. Fill out and include the form at the back of these instructions so ShopBot tools can accurately provide the rebate.

Removal

1. Make sure the power cord is unplugged.
2. Take a picture or record the existing locations of all cables. The V4g system will have the same/similar connections for these cables to connect to.
3. Disconnect the motor cables and serial cable, the serial (serial-USB) cable will no longer be needed.
4. Remove the side panel of the control box. A screwdriver will be needed.
5. Pull the gray WAGO connector in the center of the board out of the socket to disconnect the motor/driver power connection.
6. Disconnect the PC power connector at the upper back corner of the board.
7. Disconnect the any blue connector blocks that are being used. Commonly, the input and output blocks will be used. These blocks will plug into the replacement board on the same locations.
8. Disconnect the small LED cable that attaches to the 3 pin header plug. Generally this has a green and white cable. Note that the green cable is the positive terminal on this connector.
9. Remove the board now by removing the 4 mounting screws that attach it to the PC case. Save the screws for mounting the new board.



Preparation for Install

Before installing the new PRT V4g board, now is an opportune time to clean up the wiring and connections inside the box.

First, clean the box out of any debris. Be sure there are no metal shavings like aluminum in the box from cut operations over the years. Then, check the cable connections at the 48V power supply at the front of the box. The black wire should be connected to the negative (-) terminal and the red wire goes to the positive (+) terminal. Inspect all wires, if any wires or cables look frayed, damaged or loose it is important to disconnect, cut back and strip new wire to ensure the best possible setup for the new board.

Installing the PRT V4G board

1. The installation process is essentially the reverse of the removal.
2. Carefully place the new board on the 4 standoffs and screw it into place using the 4 mounting screws from the old board.
3. Plug the blue terminal blocks into the appropriate locations if removed from old board. There will be additional blocks on the new board for additional I/O devices, but the old blocks will use the lower number pins in both cases. Be sure to match the old input and output numbers up to the same labelled locations on the new board.
4. Connect the small LED cable (green and white cable) to the 3 pin header. The green wire goes to the positive side.
5. Then connect the computer power connector at the upper back corner of the board.
6. Re-connect the motor power cable to the WAGO connector in the center of the board.
7. The computer will interface with the new board using the included USB cable. Connect the cable to the controller card (the small card attached to the new V4g board), but **DO NOT CONNECT THE USB TO THE COMPUTER YET.**

Install the New SB3 Software and Driver

Before plugging in the new control board to the PC, the correct ShopBot control software version needs to be loaded. If this process is done correctly, the drivers do not have to be manually loaded.

Uninstall/Reinstall Procedure

- 1) First, hidden files and folders need to be shown on the PC. Open a folder and (depending on the version of Windows) select “Organize” in the top left of the folder, or select “View” in the toolbar depending on which is displayed.
 - a. If in Organize, an option for “Folder and search options” will be displayed, open this and go to step 2.
 - b. If in View, then you will select “Folder Options”. Then you will go to the “Advanced Settings” section, then go to step 2.

(Note if using Windows 8 or 10, View will be displayed then Check the “Hidden items” check box to view hidden items.)

- 2) Now, find the Hidden Files and Folders category and change the value from *don't show*, to *show* hidden files and folders, then click OK.
- 3) Now navigate to the following folder locations and delete them:
 - a. C:/Program Files (x86)/ShopBot/ShopBot 3
 - b. C:/SbParts
 - c. C:/Program Data/ShopBot/ShopBot 3 (**This folder is not on XP**)
- 4) Next, to open the Registry Editor and delete an entry. The process varies depending on the version of Windows being run.
 - a. For XP: Go to the start menu and click on Run. Type in **regedit** and press enter.
 - b. For other versions: Go to start menu and search for **regedit**. Click on regedit.exe to run it.
- 5) Now in regedit go to the following location and delete the ShopBot folder:
- HKEY_CURRENT_USER\Software\VB and VBA program settings\ShopBot
- 6) Close the registry, open the Start menu and navigate to the Windows uninstaller (search for the “Uninstall/Reinstall a Program” utility) the current running version of the software through the Windows uninstaller utility.
- 7) Now that the old version is uninstalled, the new version needs to be retrieved. Connect the PC to the internet or access another PC with internet access and use a flash drive to transfer the installer.
- 8) Go to the ShopBot Tools website (www.shopbottools.com) and open the link to the Current Software (<https://support.shopbottools.com/support/control-software>) – download the latest version of the software (as of 7/2018 – version 3.8.48 is the latest)
- 9) Bring the installer to the control PC that just had the old software uninstalled, move the installer to the desktop of the PC (off of the flash drive if on it).
- 10) Right click and select to Run the SB3 installer as an administrator. If administrative credentials cannot be provided, stop here and address the accounts issue on the PC.
- 11) The install will now be run, click through and accept any prompts and install the USB driver when prompted.

After the install completes, it is OK to install/plug the USB cable into the PC. If using a Windows version earlier than Windows 10, ensure the port is not a USB 3.0.

Restart the PC now. Once the computer is restarted, right click on the SB3 icon and run it once as an administrator. Everything should be set to run. If there are any issues with the setup or installation feel free to contact Technical Support at support@shopbottools.com or 919-680-4800 during regular business hours.

Be sure to pack up the old PRT control board and card (the one that was just removed) in the packaging for the PRT V4g upgrade. Fill out and include the form on the next page in the shipment to streamline the rebate process.

Send the package to:

ShopBot Tools, Inc
3333B Industrial Dr
Durham, NC 27704

ATTN: PRT 4G Upgrade Return

PRT 4g Upgrade Rebate Request Form

1. Include the RMA that came with your new board **or** fill out this form and include it in with the old Control Board. Print or stick one of your business return address labels on it. You can cut out the address below to use as shipping label.

Your Name	
Company Name	
Street	
City, State Zip	
Country if other than USA	
Phone	
Email	

2. Circle how do you want to receive the rebate.

\$250.00 credit to my credit card

Send a check for \$250.00 to the address above. Check will be made out to company name unless you request otherwise

3. Please write the RMA# on the address label.

-----Cut here and paste label on package-----Write RMA# on label-----

ShopBot Tools, Inc

3333B Industrial Dr

Durham, NC 27704

ATTN: PRT4g Upgrade Return

Phone: 919-680-4800