



## Service Procedure **SP-PCS-190703-02** Steps to Replace PCS Cartridge Cable

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### Tools & Supplies Required for This Procedure:

- 7mm combination wrench or small (4") Crescent wrench
- 2.5mm Allen wrench
- 5mm Allen wrench
- #2 Phillips "stubby" screwdriver
- #2 standard Phillips screwdriver
- CB10 WA018 Cartridge Cable Replacement Kit



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### Procedure Steps:

*(Before starting, please read instructions all the way through to ensure complete understanding)*

- 1. To ensure safety, disconnect all electrical power to the saw before disconnecting any cables.**
1. Remove cartridge cable from switch box:
  - a. Remove the 7 Phillips head screws from the switch box side cover.
  - b. Remove the side cover and set it aside.
  - c. Unplug the D-Sub cable from the switch box circuit board (see Figure 1).

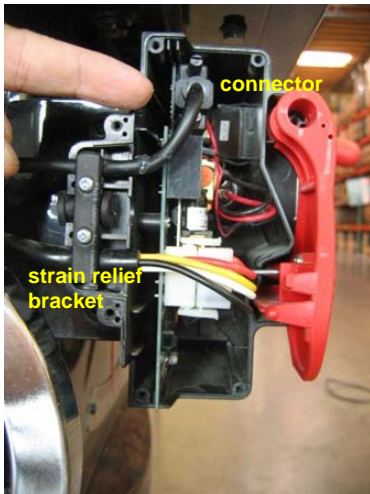


Figure 1

- d. Loosen the strain relief bracket and free the cartridge cable. Pull the cable back through the opening in the SawStop cabinet. There is a plastic grommet lining the hole through which the cable passes; you will need to remove this in order to get the D-Sub connector end to pass through the opening.



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- e. Unscrew the various cable clamps holding the cable to the internal assembly and the inside of the cabinet, making mental note of how the cable is positioned at the various fastenings. Remove the clamps and screws; when installing new cable you will use new clamps provided in repair kit. (See Figures 2-4.)



Figure 2



Figure 3



Figure 4

2. Using the elevation hand wheel, raise the arbor assembly to the highest elevation. Remove the blade and set it aside.

**Remove the access cover door on the right side of the saw, and work through the opening and the throat plate opening:**

*Note: You may find it more comfortable while working if you fold a shop towel or rag and drape it over the lower edge of the access opening to act as padding.*

3. Remove the cartridge from its bracket (see figures 5-6 below). Tilt the assembly to 45° to ease access to the connector mounting hardware:



Figure 5



Figure 6



## Service Procedure SP-PCS-190703-02 Steps to Replace PCS Cartridge Cable

4. Refer to the cartridge bracket cutaway drawing (Figure 7 below) to see how parts fit together.

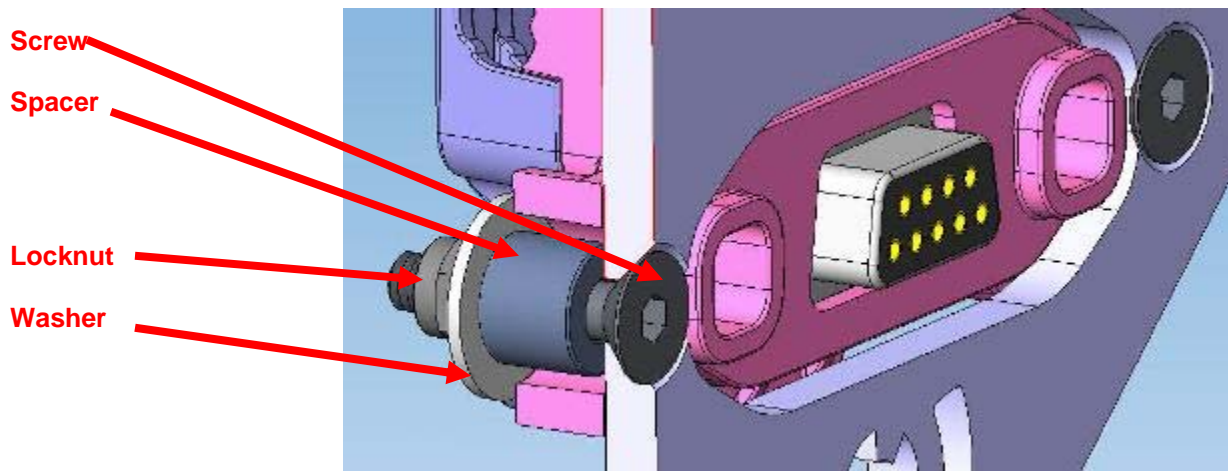


Figure 7



Figure 8

5. Remove the cartridge connector from the cartridge bracket, using a small adjustable wrench or a 7mm combination wrench and a 2.5mm Allen wrench. Reach behind the cartridge bracket with the combination wrench to hold the 7mm locknut and keep it from turning while turning the screw with the 2.5mm Allen wrench.

Make sure not to lose the flat washers, spacers and 7mm locknuts as you remove the screws.



Figure 9

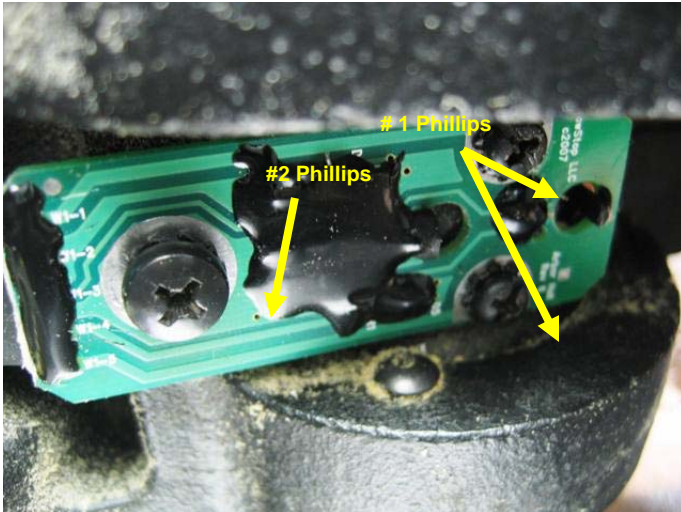


## Service Procedure SP-PCS-190703-02 Steps to Replace PCS Cartridge Cable

Working through the Motor cover door on the left side of the saw:

6. Remove the arbor lead circuit board from the electrode shell on the arbor spindle by using the

Figure 10



7. Remove the faulty cable assembly and lay it aside.
8. Un-package the replacement cable assembly.

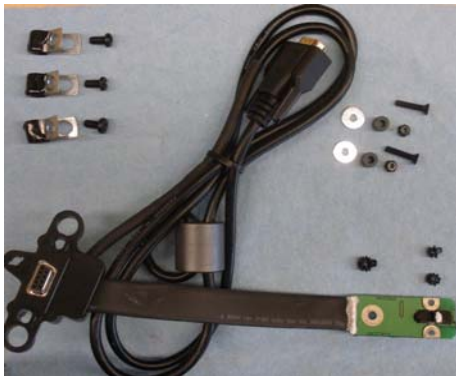


Figure 11



## Service Procedure SP-PCS-190703-02 Steps to Replace PCS Cartridge Cable

9. Notice the small arbor lead circuit board; on one side of the board is mounted a small rectangular sensor, and the wire connections for the flat ribbon cable. ***This is the side that mounts facing the electrode shell; it must NOT be visible once installed.*** (See Figure 12 below)



Figure 12

- On the other side you may find either shiny black epoxy coating or exposed electronic components. ***This is the side to be mounted facing away from the electrode shell; it should be visible after installation.*** (See Figure 13 and Figure 14 below.)



Figure 13

10. Install the arbor lead circuit board in place, taking care to tighten it down snugly to the electrode shell, and making sure all three screws are tight. Make sure the washers are between the screw head and the circuit board, not between the circuit board and the electrode shell. Do not over-torque, as this may strip out the electrode shell. (See Figure 14 below.)



Figure 14



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**Reassembly hint:** it's a good idea to pre-assemble the washer, spacer and locknut into a stack (see Figure 15), load them into the cartridge cable connector from behind, then insert the screw from the front and get the threads started. (Figure 16 shows how it will go together, but it will obviously be different when the cable connector is placed against the cartridge bracket.)



Figure 15



Figure 16

11. In the reverse of step 5, install the connector to the cartridge mounting bracket, holding the 7mm locknuts from turning using the 7mm combination wrench, while turning the screw with the 2.5mm Allen wrench, until tight. The spacer will prevent the cable connector from being clamped to the bracket. When both mounting screws are fully tight, the cable connector should still be able to slide back and forth a little against the cartridge bracket.



Figure 17



Figure 18



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12. Feed the D-sub connector on the end of the cartridge cable through the opening in the cabinet, and connect it to the circuit board in the switch box. Carefully tighten the strain relief bracket to clamp the cable in place in the switch box, avoiding crushing the cable between the bracket and switch box body. (See Figure 19 below.)

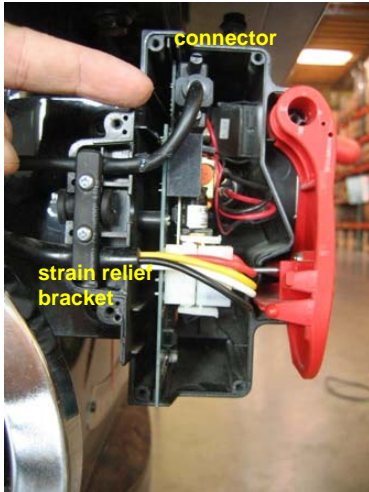


Figure 19

Feed the excess slack back into the cabinet. Replace the grommet in the cabinet opening.

13. Use the cable clamps taken from the repair kit to replace the cartridge cable and attach it to the inside of the cabinet and to the cast iron internal assembly. Be sure to leave adequate slack in the cable to allow for 45° of tilt at full elevation, and to allow for slack in the event of a cartridge activation. When tightening the clamps, be careful not to crush or crimp the cartridge cable. See Figures 20-22 below.)



Figure 20



Figure 21



Figure 22



## **Service Procedure SP-PCS-190703-02 Steps to Replace PCS Cartridge Cable**

14. Visually inspect to be sure that all connections are sound, and re-attach the side cover to the switch box.
15. Apply power to the saw, turn on and test the new cartridge cable. The saw should initialize and run in both normal and bypass modes.

### **Questions?**

**Contact the SawStop Customer Support Center with any questions or suggestions:**

**Call: (503) 582-9934**

**Email: [service@sawstop.com](mailto:service@sawstop.com)**