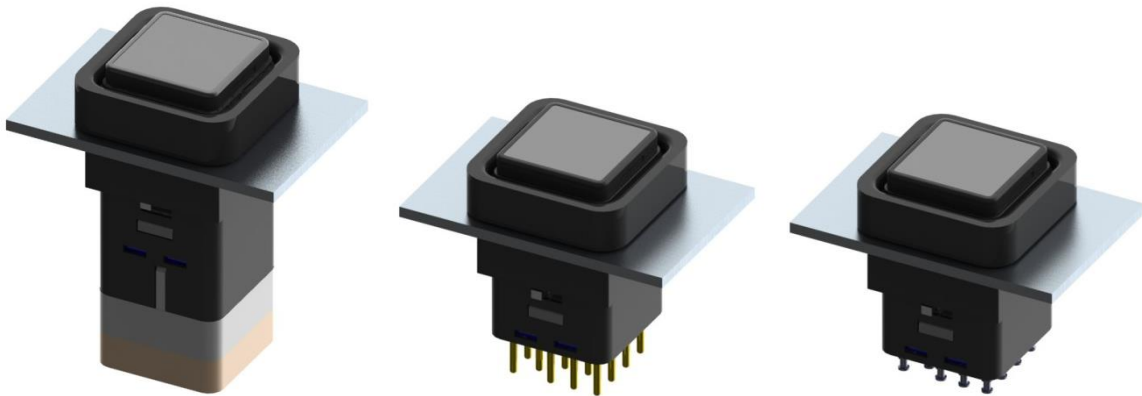




REVISION HISTORY				
REV.	DESCRIPTION	ER NUMBER	DATE	APPROVAL
1.1	REVISED PER ER	ER-47177	08/31/16	A.LETSO
1.0	INITIAL RELEASE PER	ER-42665	08/21/12	S.TRUONG

# TECHNICAL BULLETIN

## TB-216

# INSTALLATION PROCEDURE FOR S200 WATERTIGHT SWITCH



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	APPROVALS	DATE	 <p>One Step Ahead</p> <p>TEL: (949) 297-8700 FAX: (949) 297-8749</p> <p>A COMPONENTS CORPORATION OF AMERICA COMPANY</p>															
	Drawn A.LETSO	07/06/12																
<p><b>THIRD ANGLE PROJECTION</b></p>  <p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES</p> <p><b>TOLERANCES</b></p> <table border="1"> <tr> <td>DECIMALS</td> <td>ANGLES</td> <td>FRACTIONS</td> </tr> <tr> <td>.X ± .03</td> <td>± 1/2°</td> <td>± 1/64</td> </tr> <tr> <td>.XX ± .010</td> <td></td> <td></td> </tr> <tr> <td>.XXX ± .005</td> <td></td> <td></td> </tr> </table>	DECIMALS	ANGLES	FRACTIONS	.X ± .03	± 1/2°	± 1/64	.XX ± .010			.XXX ± .005			CHECKED	SEE ER	TITLE			
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## 1.0 **PURPOSE:**

The purpose of this technical bulletin is to provide necessary instructions for proper installation of watertight Series 200 switches as described in but not limited to drawing 2H-TAB WT (Standard Watertight Switch Assembly for Series 200).

## 2.0 **KEY COMPONENTS:**

- 2.1. Pushbutton removal tool P/N 15193
- 2.2. S200 watertight switch with mounting spacers
- 2.3. Torque screw driver (capable of torqueing 6-12 inch ounces)
- 2.4. UNIFLOR 8917 grease
- 2.5. Isopropyl Alcohol



Figure 1

## 3.0 **PROCEDURE:**

Note: The following steps are given in order under the assumption that the assembly received is a completed assembled state. The first steps of this procedure show how to partially disassembly the switch prior to panel installation. These steps maybe skipped as needed.

- 3.1. For crimp type switch assemblies only – Unscrew receptacle screw (counter clock wise) and slide receptacle off switch housing (Figures 2 and 3).
- 3.2. For PCB and Solder terminations, start at paragraph 3.3.

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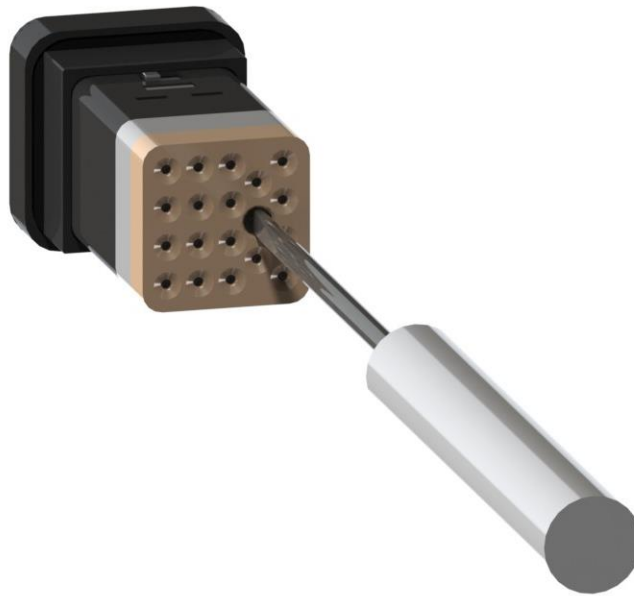


Figure 2



Figure 3

- 3.3. Remove assembled watertight pushbutton from assembled switch assembly using pushbutton removal tool (Figure 4).

Note: Unclip the pushbutton carefully. The pushbutton is tethered to the switch in order to retain the pushbutton with the exact switch body. Excessive displacement of the pushbutton may damage and cause tether to break, rendering the switch lighting features inoperable.

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Figure 4

- 3.4. Unscrew internal screw pawls (counter clock wise) to loosen mounting spacers, watertight cup and watertight seal. Screw pawls should retract back into switch body housing to enabling removal of mounting spacers. The removal of the cup and seal are not necessary, but it is good practice to ensure that there are no particles or other foreign objects (Figure 5, 6 and 7).

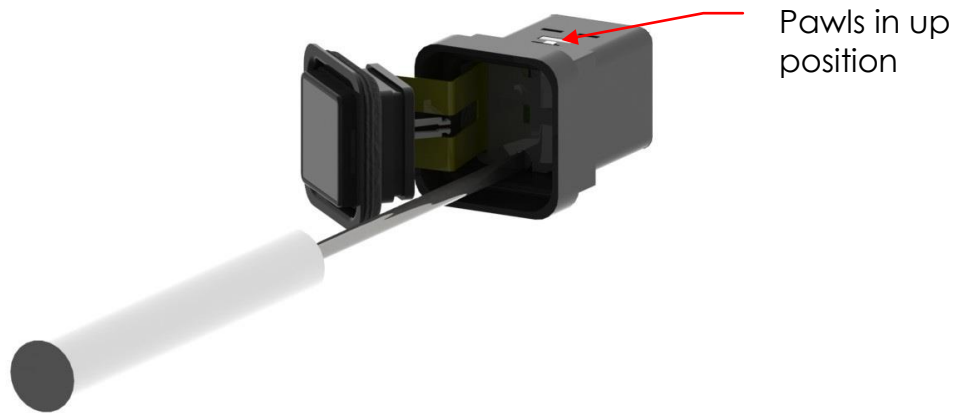


Figure 5

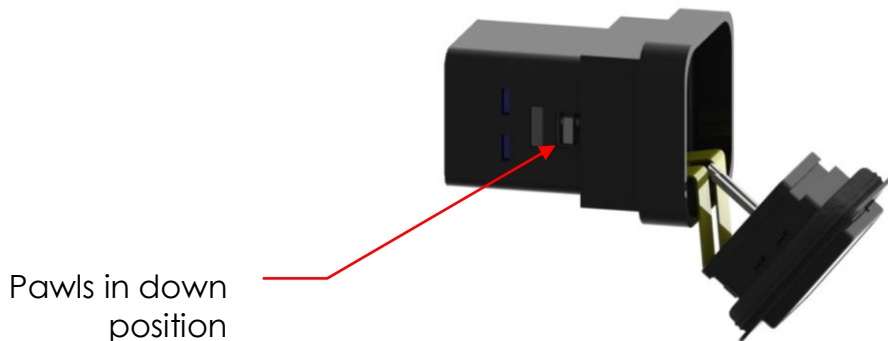


Figure 6

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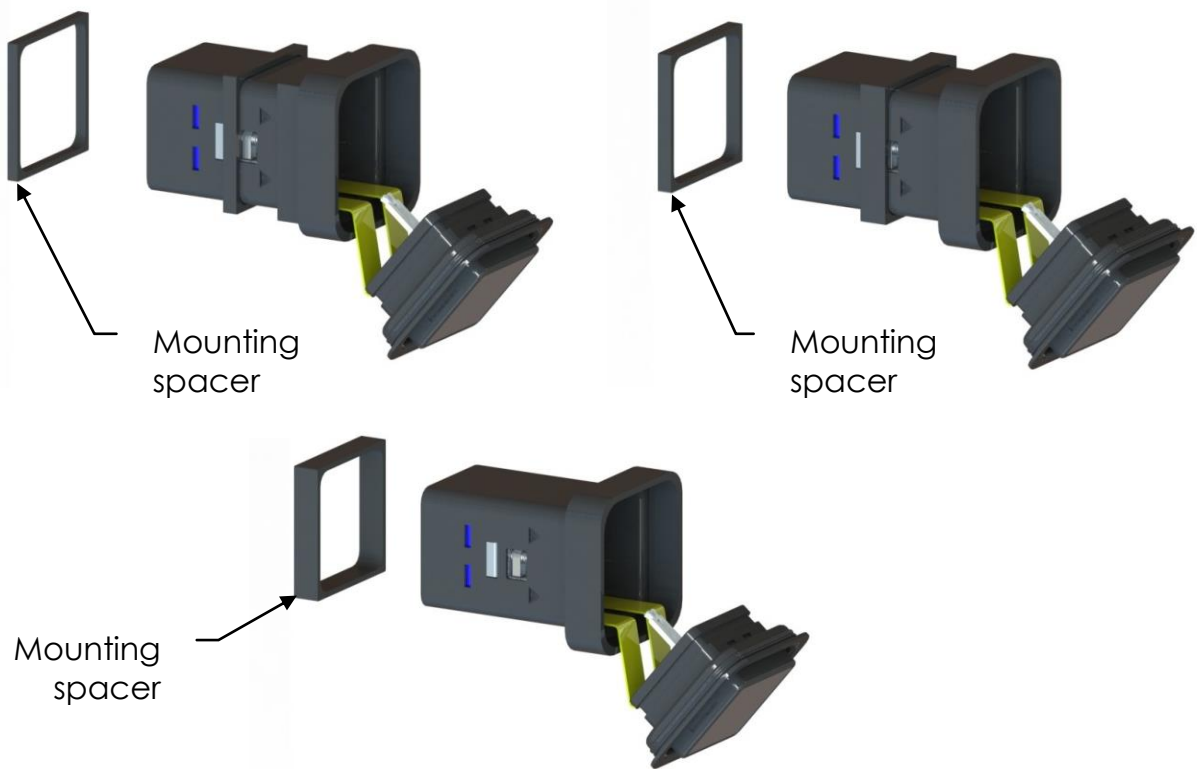


Figure 7

- 3.5. Panel Installation - The watertight switch is ready for installation into the panel. The cup shall interface against the housing lip flange, and the seal shall reside against the bottom of the cup in the bottom side cup. The seal must be fully seated within the cup cutout on the bottom side in order to prevent seal squeeze out when installing the switch to the panel (Figures 8 and 9).

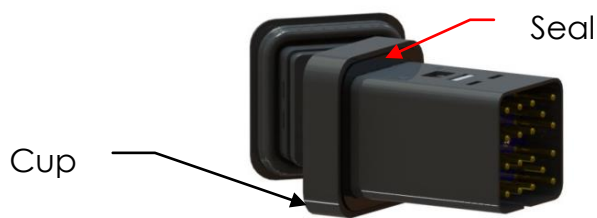


Figure 8

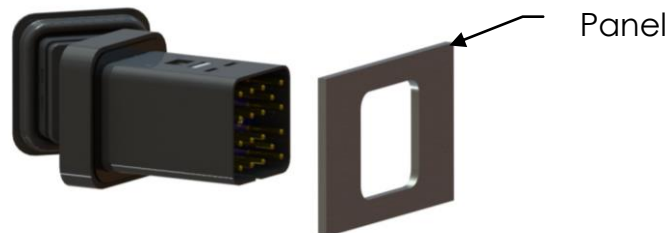


Figure 9

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- 3.6. Install switch assembly with cup and seal into panel. Adjustments to seal maybe required in order to properly seat the seal into the cutout. Properly seat, cup, seal and switch against panel (Figure 10).



Figure 10

- 3.7. With the switch assembly, cup and seal firmly seated, slide the appropriate mounting spacers (quantity and thickness will vary based on customer panel thickness). It is best to completely bottom out pawls during this time so that one can estimate the appropriate spacers to use. The indicated window on the housing in combination with the top pawl surface represents the overall travel for proper installation of the spacers. Ensure that the switch assembly, cup and seal are properly seated against the panel to reflect the installed condition to properly gauge the spacers to be used. Spacer(s) used shall cover at a minimum the top of the housing window to ensure proper tightened condition of switch assembly into panel (Figure 11).



Figure 11

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- 3.8. Insert torque screw driver into screw pawls heads and turn clockwise to tighten screw pawls against mounting spacers. Ensure that the seal is properly interfaced against the cup. Mounting spacer should remain in place when screw pawls are being tightened. If the spacer(s) do not remain in place, hold spacer in place until screw pawl swings out of housing. Torque screw pawls to  $10 \pm 2$  inch ounces (Figure 12). Switch assembly should be installed into panel at this point.

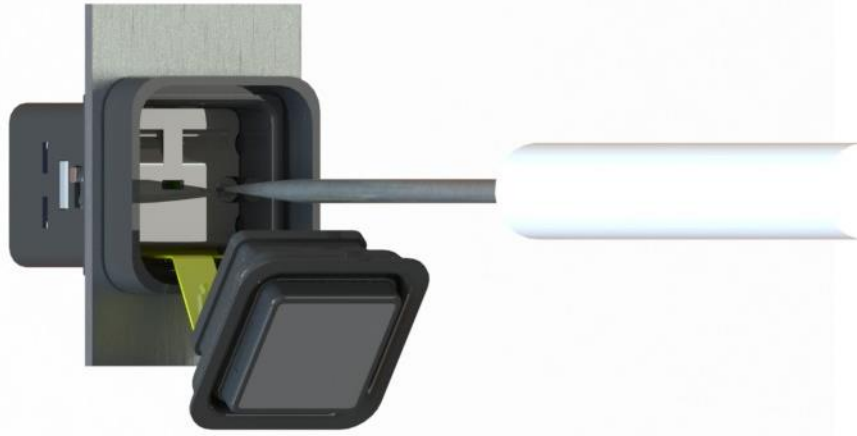


Figure 12

- 3.9. Clean cup and seal with isopropyl alcohol.
- 3.10. Using UNIFLOR 8917 grease, apply a very light coat to cup and seal area. This will aid installing seal into cup properly without compromising the seal with tears.

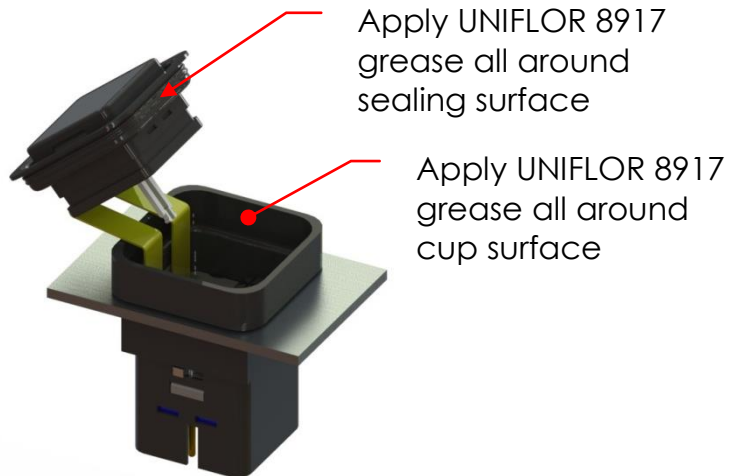


Figure 13

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- 3.11. Install pushbutton into switch. Fully depress pushbutton to properly engage pushbutton shaft clip into internal switch slot. A “clicking” sound will ensure that the pushbutton has been installed correctly. Using thumbs or the soft end of a cotton cue tip, gently push seal into cup. Cup and flange shall be flush to each other.

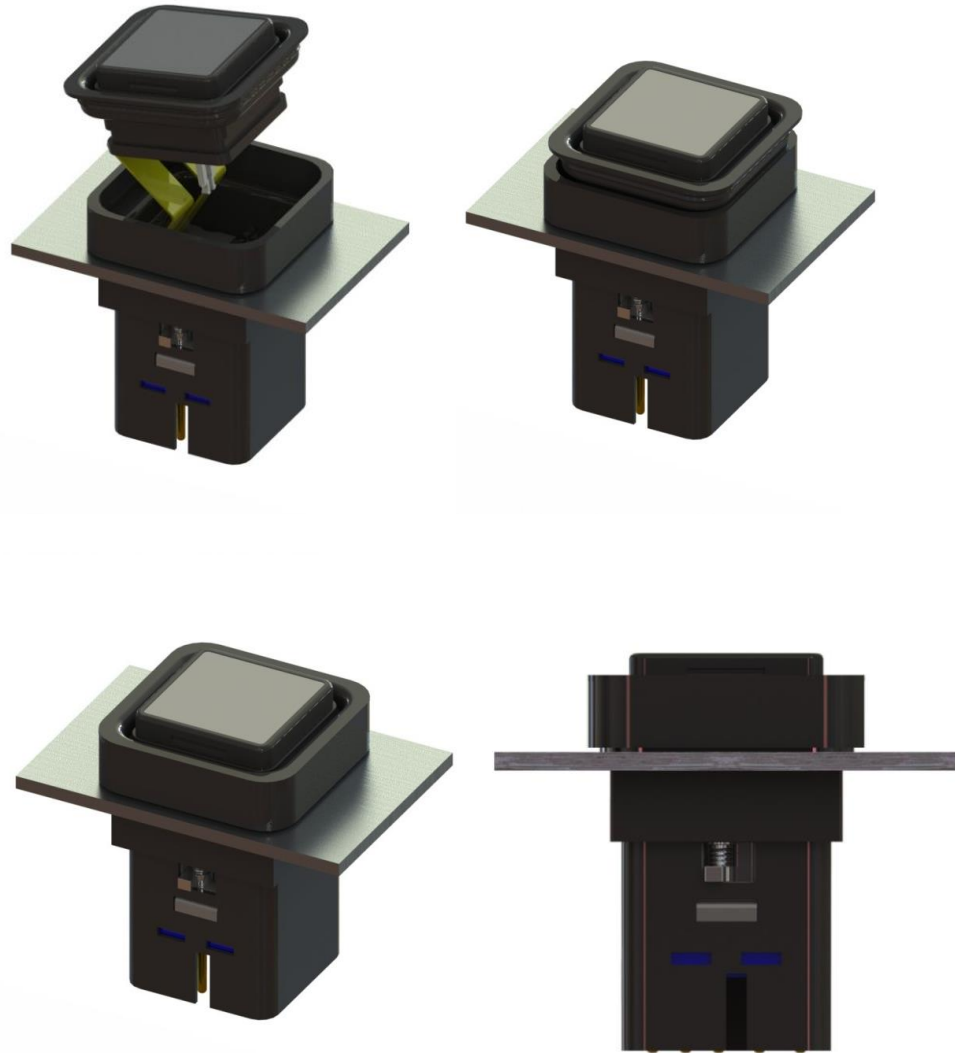


Figure 14

- 3.12. For crimp type termination re-install receptacle to switch housing and torque screws to  $8 \pm 2$  inch ounces (Figures 15 and 16).

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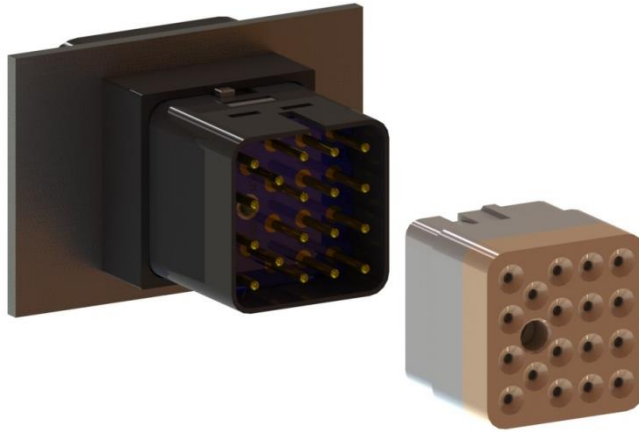


Figure 15

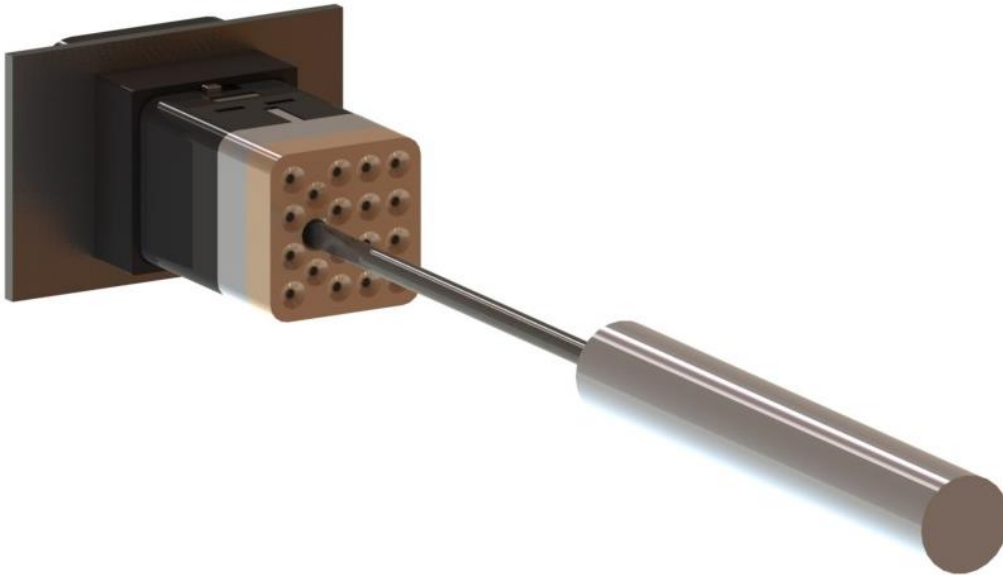


Figure 16

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