



Tommy Car Wash Systems 648 South Point Ridge | Holland, MI 49423 | tommycarwash.com

Instructions for installing Titan Reusable Hose Shortener on Bay Wash Hoses

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1. Tools:

- a. Angle Grinder
- b. Cutoff wheel to fit angle grinder.
- c. Vice
- d. 3/4" wrench – open end or adjustable wrench
- e. 7/8" wrench – open end or adjustable wrench

2. Verify the hose and hose shortening fitting are compatible:

- a. The hose shortening fitting is specific to the make and model of hose.
- b. The hose must be Titan PW-6 3/8" 4000 PSI WP 27.6 MPa 276 Bar 10



- c. Tommy Car Wash Systems Part # P-WAT-3281 - 3/8" Hose X 3/8" NPTF Male Reusable Fitting. Titan hose shortening fitting model TCP-SS-RR1-MP-06-06 9427 316L.
 - i. **IMPORTANT: Before cutting the hose, verify the Titan part number on the fitting. The Titan part number is laser printed on the fitting and must match completely for the fitting to fit the hose correctly.**



TCWS Part # P-WAT-3281

Titan Part # TCP-SS-RR1-MP-06-06 9427 316L

3. Make the bay wash/CAT pump safe.

- a. Turn the Bay Wash Pump from Auto to manual off on the iPad
- b. Lock out or tag out the starter in the MCP.
- c. Turn the shutoff valves for the high-pressure water out to the wash bay.
 - i. These valves are in one of two locations. They are either at the high-pressure discharge of the pump as pictured below or on the high-pressure tubing leading to the Bay Wash guns.



- ii. If the valves are not located on the pump, follow the high-pressure hoses from the pump to the ladder rack carrying the tubing up the wall behind the All-In-One Pump Station. You will find the valves where the high-pressure hoses connect to the stainless steel tubing.
 - iii. To shut off the water to the bay wash guns, turn the valve handles so they are perpendicular to the valve body.
 - d. With the pump shutoff, pull the trigger on the bay wash gun to release pressure from the hose.

4. Cut the bay wash hose to length:

- a. To determine the correct length of hose, place the bay wash gun in its holster.
 - i. Disconnect the hose from the gun at the quick connect fitting.
 - ii. Pull the hose and hose carriers toward the entrance end of the wash until the hose is fully extended on the trolley cable.
 - iii. Starting where the hose drops from the cable, pull enough hose until you can reach the bay wash gun in its holster. Leave enough slack so the hose hangs down until it is between 2-3" off the floor but can still reach the gun in the holster. Mark the hose where you intend to cut it with a piece of tape or paint marker.
- b. While wearing the proper PPE, cut the hose to the proper length using an angle grinder with cutoff wheel. The cutoff wheel is required to cut smoothly through the steel reinforcing in the hose. There will be some smoke and sparks during cutting. The safest way to make a clean cut, is to use a vice to lightly hold the hose. Take care to not crush the hose in the vice. With the hose held in the vice, have a helper hold the hose straight with slight tension while you make the cut. Be sure to make your cut as straight and square as possible.
- c. Remove the swivel and quick connect fitting from the cut off end of the hose.
- d. These will be reinstalled on the hose latter.
- e. The cutoff end of hose will not be used and can be kept or thrown away.

5. Preparing the shortening fitting for use:

- a. Disassemble the shortening fitting by unscrewing the male end, with male threads, from the female end of the fitting as shown.



- b. Apply anti-seize to the threads and the tapered end of the male fitting. The anti-seize keeps the threads from seizing when tightening the fitting and allows the tapered end to insert into the hose easier.



6. Attaching the shortening fitting

- a. Thread the large end of the female side of the fitting onto the hose. The threads are left-handed. Using a wrench or pliers turn the fitting counterclockwise to thread it onto the hose while holding the hose in one hand to keep it from turning as you tighten the female end. Be sure to thread the fitting onto the hose completely.
- b. Place the female side of the fitting with the hose attached into a vice as shown below.
- c. Insert the male end of the fitting into the threaded end of the fitting as show below.



- d. Hold the hose with one hand to keep it from turning as you tighten the male end with a wrench.
- e. Tighten the male end until it bottoms out in the female end. Make sure the hose does not turn as you tighten the male end. If the hose does turn more than a $\frac{1}{4}$ of turn, remove the male end, and add lubricant to its tapered end and inside of the hose. WD-40, dish soap, anti-seize all work as a lubricant. Then reinstall and tighten the male end completely while holding the hose to keep it from turning. The blue circle in the picture below illustrates how the fully tightened fitting should look like.



5. Reinstall Swivel and quick connect fitting:

- a. Use 3 wraps of Teflon thread tape and some thread sealant on the male end of the hose shortener.
- b. Thread the swivel and quick connect fitting onto the hose shortener and tighten.

6. Make Bay Wash System Functional:

- a. Use the quick connect fitting to reattach the bay wash hose to the bay wash gun.
- b. Turn on the valves for the high-pressure water out to the wash bay, see section 3 for the location of the valves.
 - i. To turn the water on to the bay wash guns, turn the valve handle until it is parallel to the valve body.
- c. Remove the lockout or tag out device from the MCP.
- d. Turn the Bay Wash Pump to “Auto” in the iPad.

7. Test the bay wash system:

- a. Mark the hose where it meets the hose shortening fitting by wrapping tape securely around the hose as close to the end of the shortening fitting as possible.
 - i. You will watch the tape to determine if the shortening fittings is working properly or is failing and the hose is pulling out.
- b. Push in on of the emergency stop switches to disable the wash equipment.
- c. Squeeze the trigger on the bay wash gun starting and stopping the pump multiple times.
- d. Check to make sure the hose is not pulling out of the shortening fitting.
 - i. Verify the tape is not moving on the hose.
 - ii. If the tape is securely fastened to the hose, and the gap between the tape and the shortening fitting grows to or exceeds 1/8” to 3/16”, discontinue testing or using the gun. This means the hose is pulling out of the shortening fitting.
 1. Contact TCWS support additional help.