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96-02 4 Runner, 98-00 Tacoma Front Bumper - Installation Instructions:

Thank you for purchasing a ShrockWorks product. We are confident you will enjoy it for many years and find it to be superior in fit, quality and especially durability. If at any time during the installation you have any questions, please give us a call. We also welcome your feedback and suggestions via phone or email on all of our products.

Tools Required:

- | | | |
|-----------------------------------|---------------------|---------------------|
| - 8mm Socket | - 10mm Socket | - 12mm Socket |
| - 14mm Socket | - 14mm Wrench | - Socket extension |
| - 19mm Socket | - 19mm Wrench | - Ratchet Wrench |
| - Utility Knife / Plastic Cutters | - Floor Jack | - Friend |
| - Sawzall or Hack saw | - Hammer | - Wire cutters |
| - 3/8" Drill Bit | - Drill | - Grinder (4Runner) |
| - File/Die Grinder | - Welder (optional) | |

Parts Included: Tacoma / 4 Runner Front Bumper:

2 - 1/2"x1 1/4" bolts*	2 - 1/2" washers*	2 - 1/2" Lock Washers*		
4 - 1/2"x1 1/2" bolts	4 - 1/2" washers*	4 - 1/2" Lock Washers	4 - flange nuts	
6 - M12 1.25 35mm**	6 - 1/2" washers**	6 - 1/2" Lock Washers**		
4 - 3/8" x 1 1/2" bolts	8 - 3/8" washers	4 - 3/8" Lock Washers	4 - 3/8" nuts	
2 - 3/8" x 4" bolts	2 - 3/8" fender washers	2 - 3/8" washers	2 - 3/8" lock washers	2 - 3/8" nuts
2 - 3/8" x 4 1/2" bolts	4 - 3/8" washers	2 - 3/8" Lock Washers	2 - 3/8" nuts	
4 - 1/4" x 1" bolts	8 - 1/4" washers	4 - 1/4" lock washers	4 - 1/4" nuts	
6 - #8 Machine screws	6 - #8 lock washers	6 - #8 Nuts		
1 - Passenger Frame Bracket	1 - Driver Frame Bracket	1 - Solenoid Mount		
1 - Passenger End Cap Mod Piece	1 - Driver End Cap Mod Piece			
2 - Round turn signals	2 - Light pigtails			
1 - Decal pack	1 - Business card pack	1- Instructions		

* - 2 extra for Frame End Mod (optional)

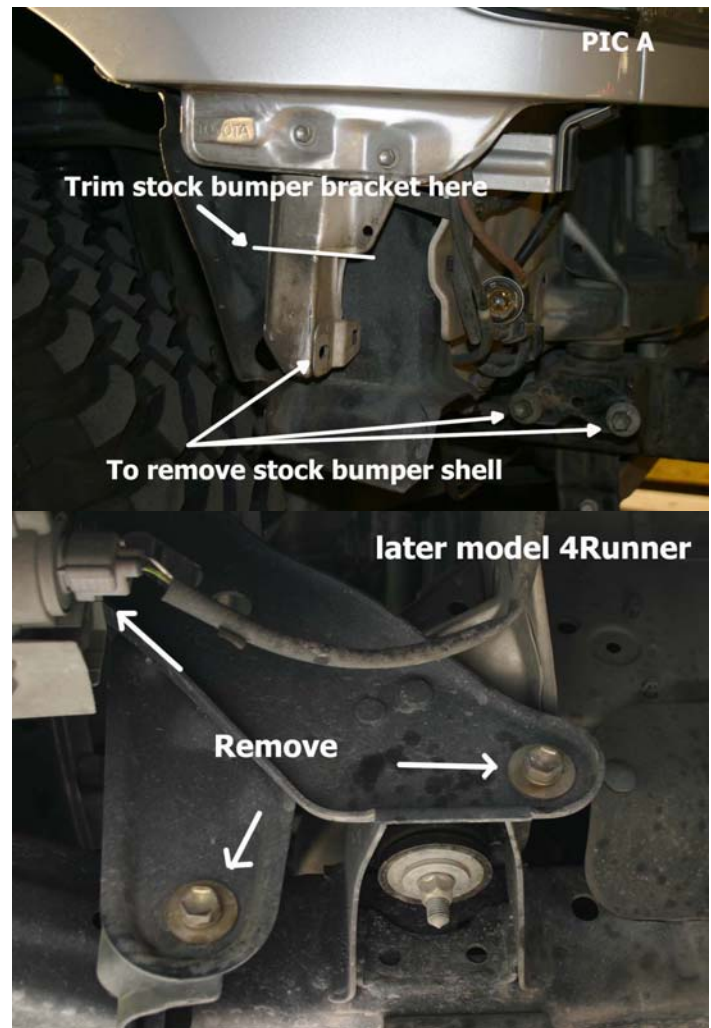
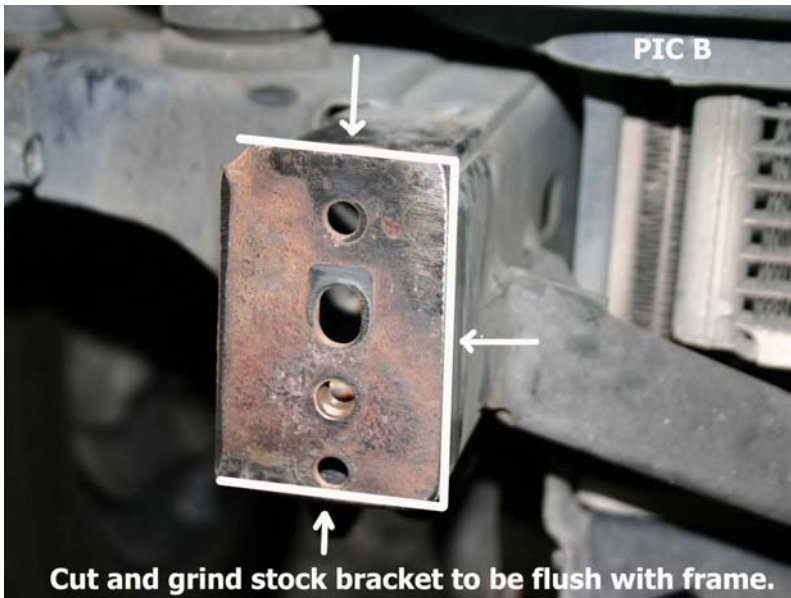
** - 2 extra for Tacoma frame end

Finishing bare steel Tacoma / 4 Runner Front Bumper

1. Paint or powder coat them before installing to prevent rust.
2. Clean them thoroughly with a solvent like acetone, prime then paint.
3. We recommend Dupli-Color brand Black primer and semi-gloss black paint. It is available at most auto parts store like AutoZone and Napa. Hammerite brand black paint is also an excellent choice. It is more of a dark grey color though.
4. Let the paint dry hard before attempting installation, usually overnight.

Installation Instructions:

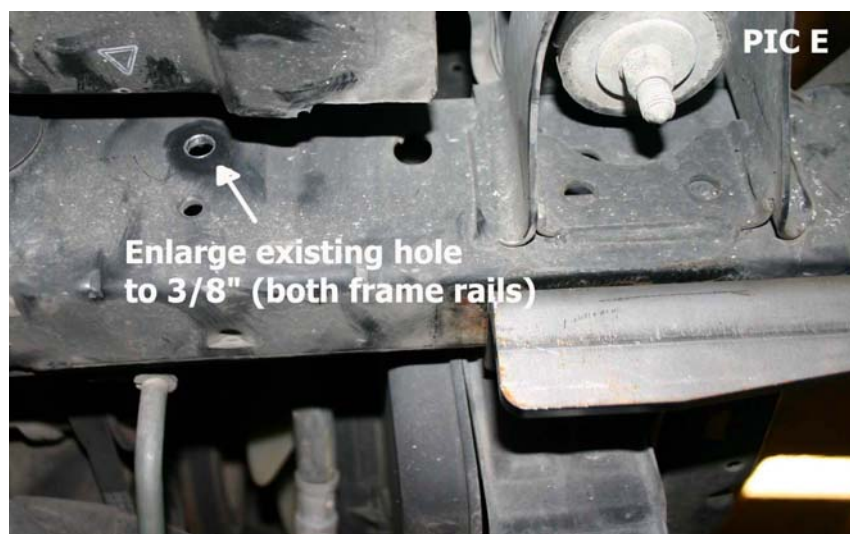
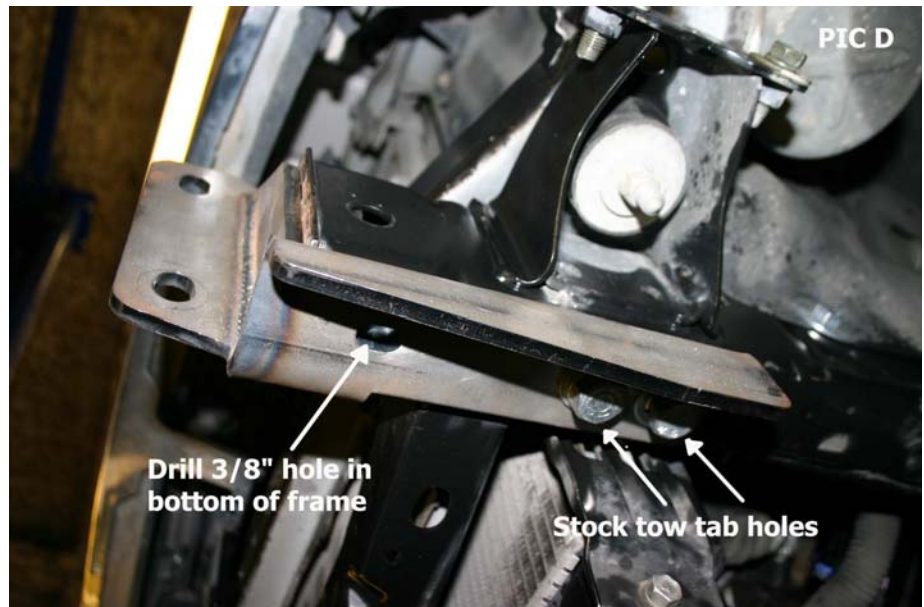
1. Unplug the turn signal plug (Gray) on the back of the turn signal housing by turning it counter clockwise $\frac{1}{4}$ turn. **On the early model 4runner the turn signal lens needs to be removed to because the bulb will not pass through the plug hole. The lens can be removed by removing the 2 screws on the front. Remove the bulb by pushing and turning counter clockwise.**
2. Remove stock bumper shell by removing the nut in each fender well and two bolts on each body mount. (There are slightly varied locations on the body mount on different models - See **PIC A**) **The later model 4runner/Tacoma bumper shell has two additional plastic tabs on the bottom center that mount to the frame.**
3. Remove the inner sheet metal bumper bolted to the end of the frame rails. The stock tow hook and tie down tab will need to be unbolted from the bottom of the frame as well.
4. Trimming or removal of the stock bumper mount in the



wheel well is necessary. (See **PIC A**) It can be unbolted from inside the engine bay if you choose not to cut it.

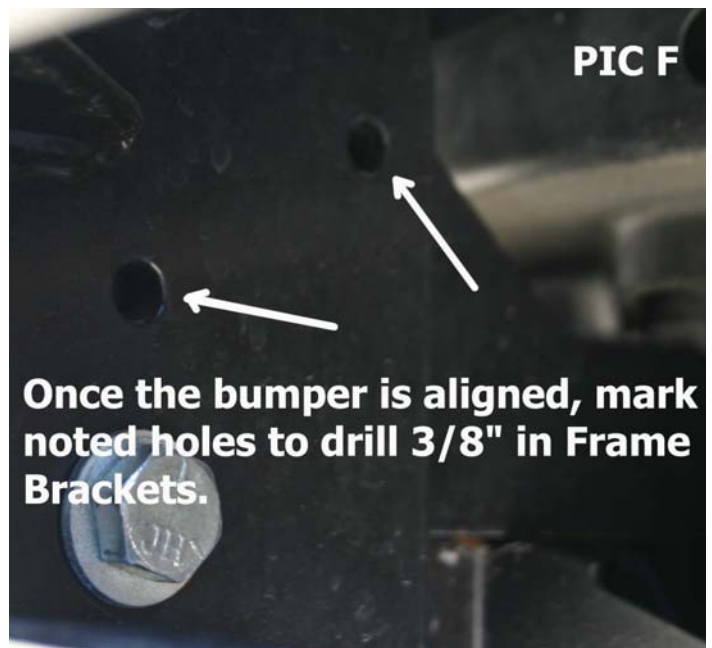
5. Trimming of the frame end plate is necessary. Trim and grind the **top, bottom and inside** of the end plate. **It needs to be flush with the frame rail (See PIC B).** It is a very quick job with a 4.5" grinder and a cut off wheel. *****If you choose, this would be a good time to do an end plate modification to add another strong attachment to the end of your frame. We include the end cap with a $\frac{1}{2}$ " nut on the inside. WELDING IS NECESSARY FOR THIS MOD (see bottom of instructions)*****
6. Once the end cap is modified, slide the bumper bracket inside each frame rail. Bolt it in place on the bottom of the frame in the stock tow hook/tab locations. Push them outward (making them flush with the inside of the frame) to allow the bumper to slip in between the bumper brackets. Tighten bolts. (We used "C" clamps to help keep them butted to the frame) **Depending on stock cross member placement variation some filing or grinding may be necessary.** (See **PIC C**)
7. Drill a $\frac{3}{8}$ " hole up through the bottom of each frame rail for a $\frac{3}{8}$ " bolt to pass through. Use a $\frac{3}{8}$ " x4" bolt, 2 - $\frac{3}{8}$ " washers, $\frac{3}{8}$ " lock washer and a $\frac{3}{8}$ " nut. Tighten. (See **PIC D**)

8. **(See Pic E)** Enlarge the existing upper hole on the outside of the frame rail about 5" rearward of the body mount to 3/8". Use a 3/8"x 4" bolt through the enlarged hole, bolting the bracket to the frame. Use the large 3/8" washer on the outside of the frame and a regular 3/8" washer, lock washer and nut on the inside of the frame. Tighten these bolts, making sure that the bracket stays flush with the inside of the frame rail end. Significant gap will not allow the bumper to fit.



Even if you are going to run a winch we would suggest installing the bumper without the winch at first on the test fit.

9. Lift the bumper into place. A floor jack under the center makes the job a little easier to support the weight. When putting the bumper in place be sure that both sides go in between the brackets equally or it will bind. The bumper goes to the **INSIDE** of the frame brackets. The two 1/2" slots on each of the brackets will line up with the two 1/2" slotted holes on each of the bumpers internal brackets. Fasten the bumper with the 1/2" hardware provided, and align to preference. Tighten the 1/2" bolts enough to hold the bumper in place.
10. Mark through the 3/8" holes on the internal bumper mount to transfer where the hole needs to be drilled on the frame brackets. These help keep your bumper from rotating or sliding down during recovery. (See **PIC F**)
11. Remove the bumper and **drill the four 3/8" holes in the frame brackets where the marks were made**. If you have a vise or drill press it may be easier to remove the brackets from the frame.



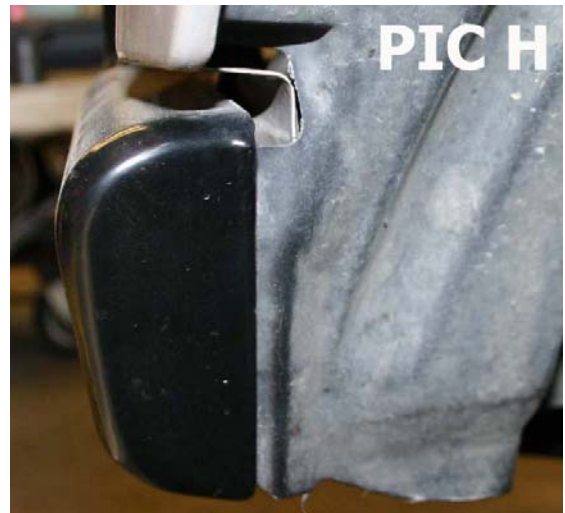
12. **WINCH:** The winch must be installed before the bumper is installed. Some brands of winches need to have the clutch engagement lever "clocked" in order to get to it from the bumper opening at the bottom. This can be done by removing the small allen bolts on the gear side of the winch and rotating "clocking" the gear housing to aim the lever to the bottom of the bumper when the winch is mounted. **(Do this before mounting the winch in order to get to the allen bolts)** When mounting the winch and fairlead make sure there is no contact between the winch line and bumper face.



13. **REMOTE SOLENOID:** Some winches come with hose clamps to mount the solenoid to the motor. If the solenoid is mounted inside the bumper there is a control plug mounting hole on the top face of the bumper. The wires would need to be extended from the solenoid box by cutting and splicing longer wires. We also offer an extension plug which plugs into the current solenoid box extending it up to the top face. We include a winch solenoid mount for mounting the solenoid on the top face

of the bumper. Depending on the winch, the solenoid cables may need to be lengthened.

14. We took this time to mount and wire the turn signals and any other aftermarket lights while the bumper was on the floor. **(See PIC G & wiring info below).** **NOTE:** When mounting the turn signals it is easiest to stand the bumper on its base and put the machine screws in from the inside of the mount, then install the light and fasten with the lock washers and nuts.
15. Reinstall Bumper. Mount the 1/2" bolts, using a lock washer, washer on the bolt side and only the flange nut on the other. As well as the 3/8" hardware in the drilled bracket holes.
16. Trim and tuck the wheel well plastic into the end cap of the bumper. (See **PIC H**)
17. **Make sure the bumper and brackets are not against any hoses or hard lines. Tighten all hardware**



Wiring Info:

The PIAA harness and relay doesn't need to be run. Just cut the connector from the PIAA harness leaving a usable amount of wire to be able to splice to the stock Toyota fog light harness.

Turn Signal:

When wiring the turn signal use the probes closest to each other. The wires can go to either probe except when using a LED, which will only work one way. So if the LED doesn't work switch the wires on the probes. The third probe can be used for the parking light by running the front corner light power to it.



Passenger	Turn White/Black to Gray Green/Yellow to Gray/Red	Parking Light Black to Red/Yellow	PIAA White to Green Black to Black/White
Driver	White/Black to Gray Gray/Black to Gray/Red	Black to Red/Black	White to Green Black to Black/White

Torque specs:

Metric

M12 - 65 ft/lbs
M8 - 25 ft/lbs
M6 - 5 ft/lbs

SAE

1/2" - 85 ft/lbs
3/8" - 33 ft/lbs
1/4" - 10 ft/lbs

FRAME END CAP MOD

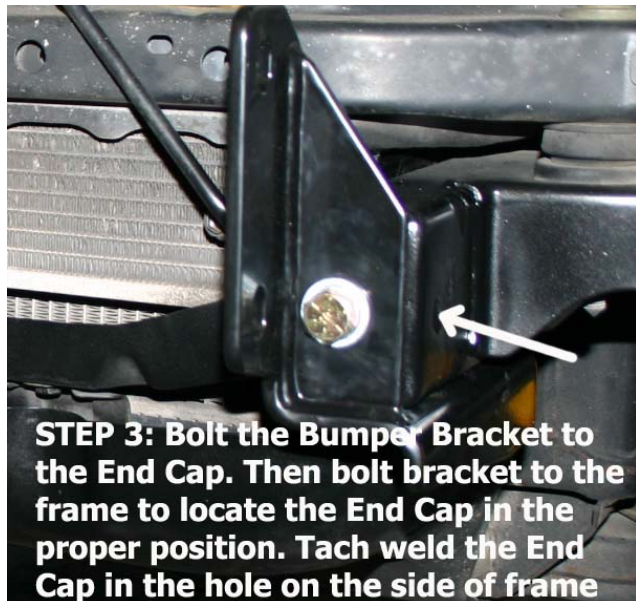
Before starting to cut the end cap off, make sure to measure back to the body mount and/or a frame hole to be able to help locate the new end cap. Some fitment of end cap may be necessary (grinding of corners/edges).

STEP 1: Grind welds on top and outside of frame.



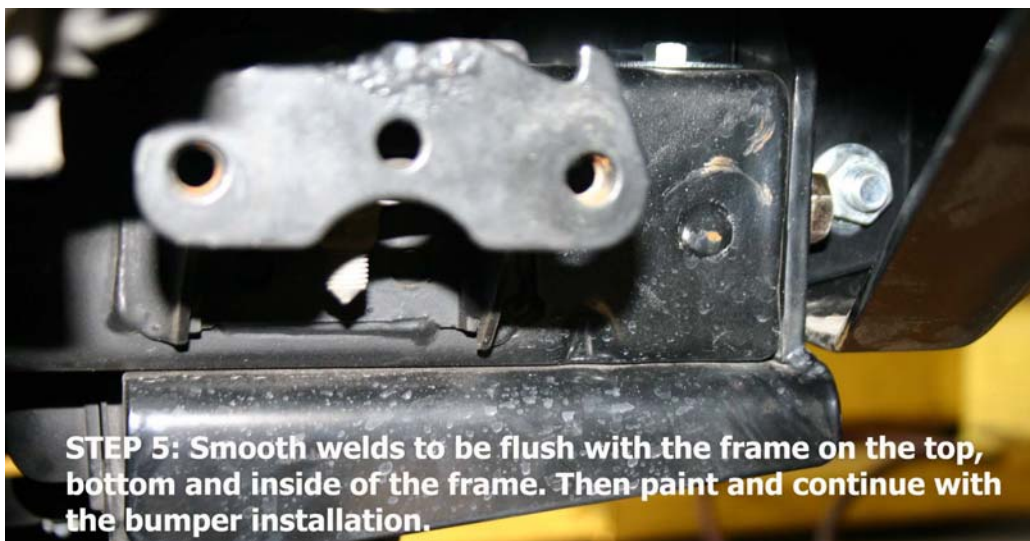
Clear away paint from surfaces to be welded

STEP 2: Insert End Cap Mod piece into the frame. Flange to the outside of the vehicle.



STEP 3: Bolt the Bumper Bracket to the End Cap. Then bolt bracket to the frame to locate the End Cap in the proper position. Tach weld the End Cap in the hole on the side of frame

STEP 4: Remove Bumper Brackets. Finish welding End Caps, welding all four sides and plug welding the hole on the outside of the frame.



STEP 5: Smooth welds to be flush with the frame on the top, bottom and inside of the frame. Then paint and continue with the bumper installation.