



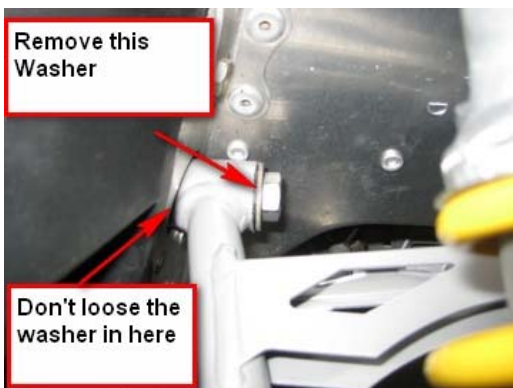
Installation Instructions Skidoo XP Upper Rear A-Arm Brace Kit

Note: These instructions and pictures are for the right hand A-Arm brace installation, Start with the right side to match the pictures for easy reference. The right side is your right hand side when sitting on the sled.

Read thru these instructions before attempting to install the kit. See your dealer if you are uncomfortable with any of the steps for installing this brace kit. You will need 1/8", 3/16" and 1/4" drill bits for this installation. A rivet gun, small electric drill, center punch, hammer, blue loctite, wire brush, and various wrenches.

Upper A-Arm 90 Degree Brace

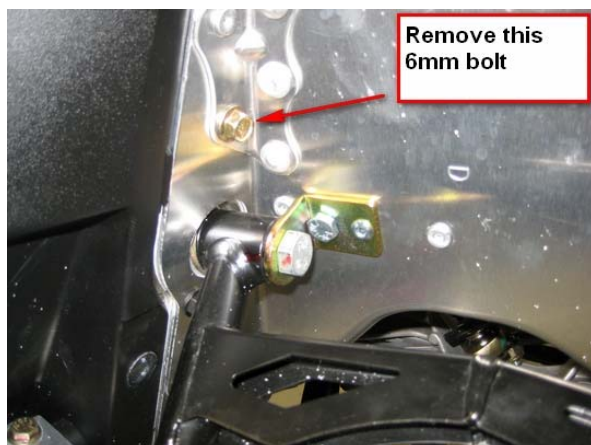
1. Remove the left and right side panels to expose the clutch and muffler areas.
2. Remove the hood and front nose piece with the holes in it to expose the exhaust pipe area.
3. Remove the muffler and exhaust pipe.
4. Support the front of the sled so the skis are off ground.
5. Starting with the right hand A-Arm, remove the nut that attaches the Upper A-Arm to the spindle and pull the spindle bolt out of the Upper A-Arm so they are disconnected.
6. Remove the bolt that attaches the rear of the upper A-Arm to the chassis. There is a washer next to the hex head of the bolt. Remove this washer from the bolt as the angled brace will take the place of the washer. Make sure not to use the washer and brace together as it could cause the bolt not to fully engage the locking nut. Clean any left over loctite on the bolt threads with a wire brush.



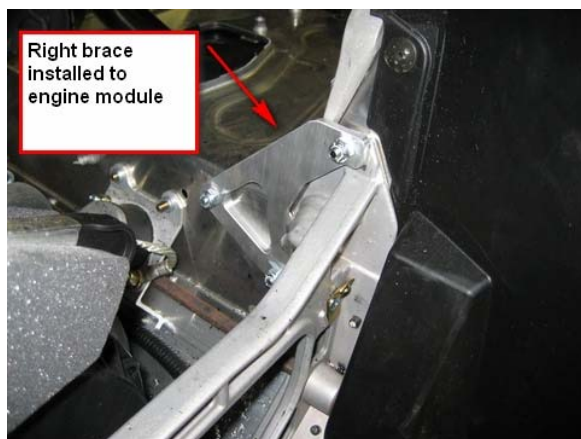
7. Install the 90 degree angle brace in place of the outside washer as shown in the picture above. Make sure the washer between the A-Arm and chassis didn't fall out when the bolt was removed. Fully tighten the bolt while keeping the brace against the chassis.
8. Use a 3/16" diameter drill bit to drill thru the smaller hole in the brace. Rivet the brace to the chassis using the supplied 3/16" steel rivet.
9. Remove the bolt that attaches the rear of the upper A-Arm to the chassis again to gain clearance to drill the 1/4" diameter hole.
10. Use a 1/4" diameter drill bit to drill thru the larger hole in the brace. Bolt the brace to the chassis using the supplied 1/4" x 3/4" hex head bolt and nylon locking nut. Use the nylon locking nut on the inside of the chassis.
11. Reinstall the rear bolt that attaches the upper A-Arm to the chassis. Use Blue Loctite for added security.
12. Don't reconnect the upper A-Arm to the spindle until all the braces have been installed.
13. Repeat the above procedure for the left side upper A-Arm starting with step #5.

Billet Aluminum Engine Module Brace

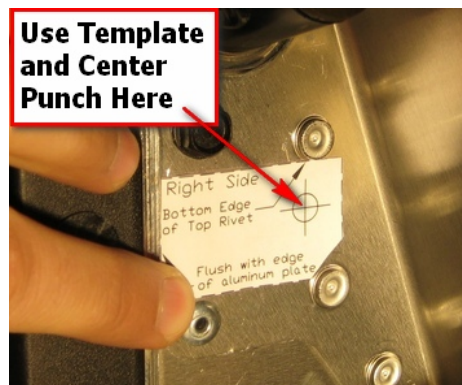
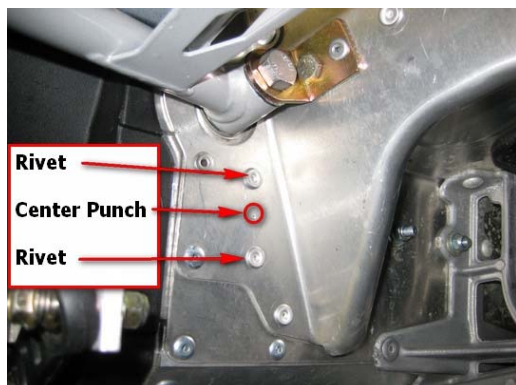
1. Remove the 6mm hex head bolt and nut at the top of the engine module. This hole will be used to attach the right hand brace to the engine module. This bolt will not be reused. See pictures below.



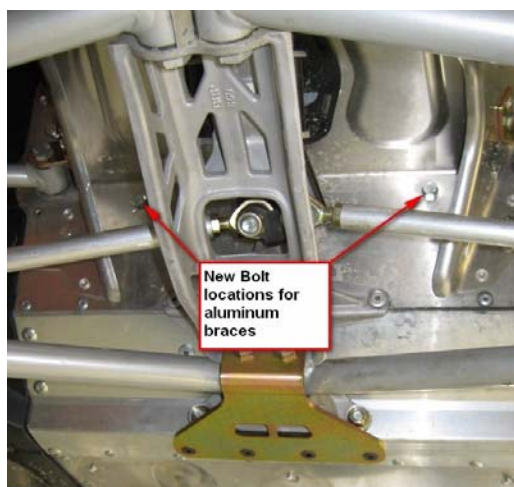
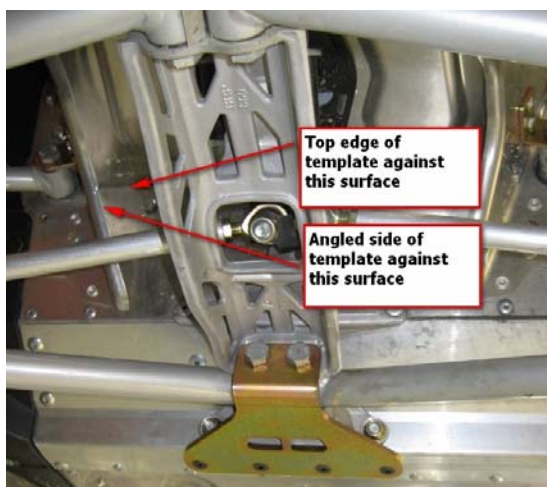
2. Loosely bolt the right aluminum engine module brace in place using the supplied $\frac{1}{4}$ "x1" hex head bolt and nylon locking nut. (Note: The right brace has a "R" scribed in the surface for identification.) It may be necessary to drill the hole the 6mm bolt was in out using a $\frac{1}{4}$ " diameter drill bit if you can't get the $\frac{1}{4}$ " bolt thru the hole. Rotate the brace so it is flat against the chassis and also against the side of the cast aluminum engine module and snug down the $\frac{1}{4}$ " bolt. You will want to rotate the brace during installation to check for proper hole alignment. See picture below.
3. **Note:** Due to a running production change at BRP some Engine Modules have different thicknesses at the top bolt area. This brace kit is designed for the thickest mounting tab on the latest 2009 models. If you are installing this kit on a 2008 or early build 2009 and it has a thinner mounting tab you will need to put one or more $\frac{1}{4}$ " flat washers between the Engine Module and the brace so the brace sits flat against the bulkhead and Engine Module. Some sleds also have a small amount of casting flash on the engine module that will need to be removed with a file to make a flat surface, particularly on the left hand side Engine Module. Check the fit of the brace to the Engine Module to determine if you need a washer or not and if there is any casting flash that needs to be removed before installation.



- Referring to the picture below, locate these two rivets on the outside of the chassis. Use the supplied outside paper template to locate this hole and mark this spot with a center punch. The template needs to be even with the vertical edge of the aluminum and against the top rivet as shown. Drill a 1/8" diameter pilot hole in this location. Note: The templates locate the hole location as close as possible to the correct location. Because of tolerances and individual inaccuracies in template locating these holes could be off slightly. This is the reason we drill a 1/8" pilot hole and the brace holes are undersized. When you drill thru with the 1/4" bit that will drill the final aligned hole for attaching the brace.



- This pilot hole should lineup with the pilot hole in the billet aluminum brace. If it doesn't make a small adjustment to the hole location with the 1/8" drill bit. Now drill thru this pilot hole and the pilot hole in the brace with a 1/4" drill bit. Use the supplied 1/4"x1" hex head bolt and nylon locking nut to fasten the chassis to the brace. Fully tighten this bolt and nylon locking nut.
- Use the supplied inside paper template to locate the last hole that needs to be drilled. Cut the right template out on it's dotted line and position in the location shown. Use scotch tape to hold the template in position while you mark the hole location with a center punch. See the pictures below.



- Drill a pilot hole using a 1/8" diameter drill bit. This pilot hole should lineup with the pilot hole in the aluminum brace. If it does not make a small adjustment to the hole location with the 1/8" drill bit. Now drill thru this pilot hole and the pilot hole in the brace with a 1/4" drill bit. Use the supplied 1/4"x1" hex head bolt, nylon locking nut, and flat washer to bolt the brace to the chassis. The flat washer to be used on the outside of the chassis. Fully tighten this 1/4" bolt and nylon locking nut. **Note:** (Drilling this hole will be easier if you have a small drill or a right angled drill. Depending on your drill size you may need to remove the shocks to swing the lower A-Arm down in order to gain more room for the drill.)
- Now go back and loosen the top bolt. If there is a gap between the brace and Engine Module use a 1/4" flat washer to take up the space. Fully tighten the top 1/4"x1" bolt and nylon locking nut.
- Repeat the above procedure for the left side billet aluminum brace.
- Reinstall the exhaust pipe, muffler, and panels. Reattach the upper A-Arms to the spindles.

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