

YAMAHA VIPER SX SRX SXR V-MAX XTC CUSTOM LONG TRACK INSTALLATION



REMOVAL OF OLD TUNNEL EXTENSION AND COOLER

1. Remove plastic bumper covers.
2. Drain coolant by removing left or right rear cooler hose. Don't forget to remove radiator cap to relieve the vacuum. Have clean bucket ready.

- Use extreme caution not to drill into the cooler!
- Use punch to move mandrel down inside pop-rivets and drill with 7/32 bit. Carefully just remove pop-rivet head.

3. Drill out rivets that hold cooler to the tunnel, then drill out tunnel extension mount rivets.

INSTALLATION OF NEW TAPERED TUNNEL EXTENSION

Note: To help keep alignment during drilling, insert rivets in each hole. (Don't crimp!)

After drilling always remove burrs to insure flush fit. Due to manufacturing tolerances all holes may not align if necessary re-drill or use a small round file to align.

1. Slide new tunnel extension into tunnel flush, then clamp in place. Drill holes using existing tunnel holes as a template. Clean all burrs from holes to ensure flush fit and rivet into place. See Photo 1 and 2.
2. Position and center cooler tube in tunnel extension. Drill mounting holes in tunnel extension and rivet cooler tube using mounting brackets. Clean all burrs from holes to ensure flush fit.
3. Install new hose and fittings, and insert in-between two sections. Bleed system at hose connection and fill system. Re-install clamp. Install flap using four large headed rivets.
Note: Use pick to bleed air from system by placing between the cooler tube and the hose, at the highest point.

4. Install bumper and support plates using factory bumper bolts. Cut and drill bumper support brackets as needed to mount from bumper bolts to factory tunnel and rivet in place. **NOTE:** Use LOCTITE® and factory torque values on all bolts. Rivet support plates to tunnel.

(EXAMPLE): Viper Bumper mounts on inside of tunnel, mark and drill two 1" holes in tunnel extension to insert aluminum bumper. Also mark and drill the four bolts to mount bumper to tunnel. Use bumper support plates on outside of tunnel for Viper type bumpers. All other type bumpers support plates go on inside tunnel extension.

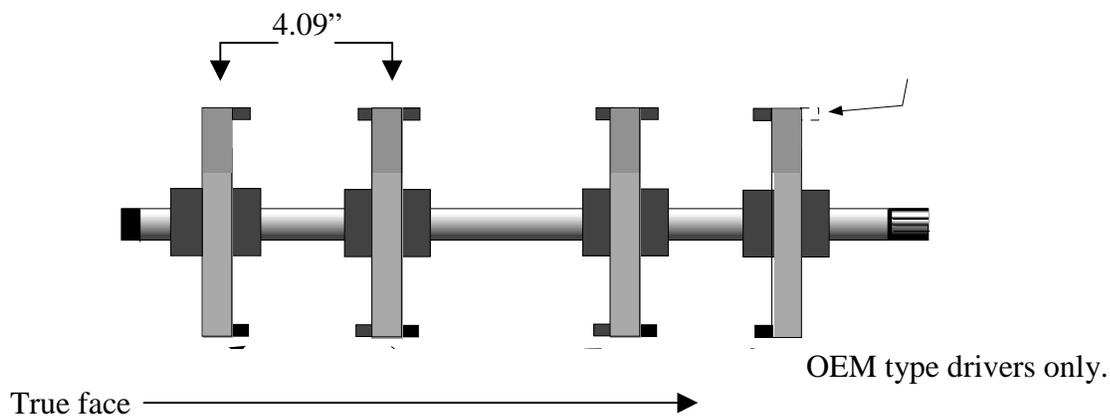
5. Trim to fit and install factory hose covers. **CAUTION:** This is time consuming be patient, you only get one shot so trim carefully. **NOTE:** You can use 1" hole saw to cut rear ends of covers, applying very little pressure or the teeth will bite, and the bit will take-off scratching cover. **151" & 156" Kits Only.**
6. Mount Hose Covers.
Note: Front hole in tunnel is not drilled from factory.
Put bolt in back hole and mark front hole location on tunnel to be drilled with grease or blueing. After you have marked the front hole location, drill tunnel. Now mount hose covers.
7. Install seat, rear flap, and bumper and bumper support plates mark and cut support as needed .
8. Give the snowmobile a good once over. **CHECK YOUR WORK.** Even the best wrenches can miss something that's why they double check everything. Now you can use the bumper to support sled.

**THIS KIT WAS INTENDED FOR INSTALLATION
BY A YAMAHA DEALER OR CERTIFIED MECHANIC**

**This kit is designed to increase the performance of the snowmobile, use extreme caution.
We will not be liable for damage, personal injury or death on any modifications performed.**

SLIDE FRAM AND GEAR BOX REMOVAL

1. Drain oil from chain case. (12mm inside tunnel)
2. Loosen rear axle nut then track adjusters.
3. Remove slide rail suspension. **CAUTION:** Use a wood block to support main shock while unbolting or you may dent the tunnel.
4. Remove driven clutch and speedometer gear assembly. **NOTE:** Bearing has 2 allen or tork set screws inside tunnel that need to be loosened to remove. (Remove small speedometer gear to remove drive. Viper only.)
5. Remove chain case cover. Remove gears & chain. Check gear ratio (2:1 is optimum for this kit). Call us for special custom set-up.
NOTE: Use brakes to loosen gear nut, remember spacer locations for re-installation.
6. Remove chain case from tunnel. **NOTE:** Brake unit will stay with chain case no need to remove brake lines. **WARNING:** Do not loose key for brake rotor or brake will not work causing damage to snowmobile or personal injury.
7. Remove old track and driveshaft from tunnel. The 2" track application requires 8 tooth drivers to clear front cooler and tunnel. They will need to be pressed on, trued on a lathe for alignment of track with slide frame and maximum performance without vibration. **NOTE:** The drivers have arrows that must be aligned to the same position on the shaft. (On the tips of the lugs) **NOTE: Anti-ratchet drivers a must with big tracks**



REMOVE SLIDE FRAME MOUNTING PLATES

1. Remove factory center and rear mounting brackets from inside tunnel. The center front bracket has 8 pop rivets. Rear brackets has 10 pop rivets. The cooler mount rear has 1 pop rivet that must be removed in order to install new CNC aluminum rear drop plates. See Photo 7 and 8.
NOTE: Use punch to move mandrel in on pop rivets before drilling. Use 7/32" bit to carefully remove pop rivet head.

REMOVE TUNNEL PROTECTORS FROM TUNNEL AND FRONT COOLER GUARDS

1. Cut weld off front cooler guards. Small Dremel works well.
2. Remove white upper tunnel protectors. Pull down mandrel and cut aluminum straps with side cutters.
NOTE: Lift gas tank to remove pop rivet heads from under gas tank. (No drilling around gas tank!)

NOTE: Tunnel protectors and front cooler guards must be removed for high lug tracks.

INSTALLATION OF TUNNEL REINFORCEMENT MOUNTING TEMPLATES

Long Aluminum Plates with 3 holes.

1. Mount left and right tunnel reinforcement mounting templates inside tunnel with 10mm alignment bolts supplied in kit, bolt and nut may be removed after installation. (See Photo 9 and 10)
2. Drill front 3/16 rivet holes from outside tunnel towards inside at approximately 1" from front edge of reinforcement mounting templates (top only). Use existing factory holes in tunnel to drill 3/16" holes from outside of tunnel toward inside through rear of reinforcement mounting templates and rivet. Clean all burs from holes to ensure flush fit. (See Photo 9 and 10)
3. Drill 25/64 front and rear slide frame mounting holes in tunnel from inside tunnel toward outside using existing holes in reinforcement mounting templates. (See Photo 9 and 10)
4. Use 25/64 hole and a bolt to align outer tunnel reinforcement mounting templates (small square plate with 3-holes and 5-holes). Drill the 3/16 rivet holes from outside of tunnel toward inside and rivet. Clean all burs from holes to ensure flush fit. (See Photo 9 and 10)

NOTE: Remove white protective covering from parts before you install.

NOTE: After all pop rivets are crimped, use round file to align mounting holes on tunnel reinforcement plates.

INSTALLATION OF NEW REAR SLIDE FRAME MOUNTING PLATES

Aluminum CNC Plates

1. Remove 1 rivet from left and right side of tunnel where rear cooler mounting plates are attached. (See Photo 8 and 11)
2. Install new rear slide frame mounting plates inside tunnel. Use two large head rivets to align to factory rivet holes.
3. Drill 5/16 lower and upper mounting holes and fasten. Use LOCTITE® and factory torque values on all bolts and nuts. (See Photo 11) 12 lb. Torque.

NOTE: Left and right aluminum drop plates are mirrored...both the same. Install upper and lower pop rivets and crimp. Take your time this is very important.

SLIDE FRAME RAIL EXTENTIONS

1. Remove track adjusters from rails. Center punch rivets, and drill 1/8" pilot hole 1/4" deep in all rivets. Then use 17/64 drill bit to remove rivet heads. Use punch to remove rivets.
2. Install left & right rail extensions, align rear holes, clamp, and re drill holes to 1/4". Install 1/4 x 3/4 bolts & nuts provided. **NOTE:** Remember to LOCTITE®
3. Install track adjusters on rail extensions.
4. Install rear axle.

NOTE: Starting setup for rear suspension (VERY IMPORTANT).

1. Adjust front limiting straps to 25 or 30 mm from end of bolt to lock nut.
2. Adjust transfer rods to middle ring. #2 Ring if you have them.
3. Tunnel protectors and front cooler guards must be removed for high lug tracks.

SLIDE FRAME UNIT

1. All kits with relocated slide frame mounting and aluminum CNC drop plates. You must cut 1/8" off each end of the upper bogie shaft and use new aluminum spacers. (VERY IMPORTANT)
(See Photo 12)

NOTE: Some applications you are able to move the center bogie shaft and wheels from the center of the slide frame to the lower rear mounting hole on rail extension; only if you have room.

Drill lower hole to 7/16" and install bogie shaft and wheel using factory bolts.(see photo 6)

REMOVE TUNNEL PROTECTORS FROM TUNNEL AND FRONT COOLER GUARDS. FOR ALL TALL LUG TRACKS.

STUDS You will need to trim track down to miss tunnel guards to run a tall lug track and studs.

SLIDE FRAME AND GEAR BOX INSTALATION

1. Move new track under tunnel (check rotating direction of track).
2. Install driveshaft into chain case side of tunnel first then rotate to speedometer side of tunnel.
NOTE: Align driver lugs to fit inside track drive lugs so it does not bind while installing the driveshaft.
3. Lube inner chain case seal. **CAUTION:** Do not damage seal while installing chain case over shaft.
4. Make sure key for brake is properly installed. **WARNING:** The brake will not work if key is not installed properly causing damage to snowmobile or personal injury
5. Install chain case with proper gearing (2:1). Example: 20/40 with 8-lug drivers is a final drive ratio of 2.25:1
NOTE: Return spacers in original positions, use brake to tighten nut. Call us for custom setup.
6. Return chain tensioner to factory setting and tighten lock nut. Bolt hand tight.
7. Install chain case cover. **CAUTION:** Lube chain case cover seal and be careful it's fully seated so it doesn't get pinched when tightening cover.
8. Install drain plug. **WARNING:** Not installing drain plug and filling chain case to factory specifications will cause severe damage to chain, sprockets and case. 250cc of gear oil.
9. Install speedometer gear assembly, check bearing and cable for proper lubrication. **NOTE:** Remember to LOCTITE® and set the 2 allen screws or torks that lock the bearing.
10. Move slide frame into position inside track. **CAUTION:** There are many sharp edges inside slide fame that will remove skin from knuckles.
11. **WARNING:** Make sure snowmobile is supported so that it won't fall and crush you while you're inside the slide frame the shocks are under extreme pressure. **TIP:** Use a block of wood to hold up main shock, use 6" block of wood under rear of track, this will help to align front mounting bolt holes, then put that same block under front of track to install rear mounting holes. A small ratchet tie down is a must to hold and move slide frame inside tunnel.
12. Use LOCTITE® and factory torque values on all slide frame mounting bolts and nuts.
13. Give the snowmobile a good once over. CHECK YOUR WORK. even the best wrenches can miss something that's why they double check everything. Run and recheck coolant more than once.
14. **WARNING:** Make sure snowmobile is safely supported and everything is clear while track is in motion. Align track so that hifax run in center of track clips **TIP:** With YAMAHA adjusters the adjuster you tighten is the direction track will move towards. **Do not make track too tight. 1" hang down in center. Don't forget to adjust front limmiting straps.**

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