

MTNTK

PERFORMANCE

The '19-20' Polaris 850 Patriot Turbo Kit Install Instructions



1. Remove side panels, hood, seat, fuel tank, muffler, driven clutch, air intake, air box, fuel lines, and the stock fuel rail.



2. Remove zip ties and rubber retainers securing the wire harness. Using the stock exhaust springs, double up the Y-Pipe to Pipe connection



3. Unclip injector harness from the throttle body and TPS harness. Carefully remove Injectors from cylinder. Do not lose the green O-Rings. Unplug and remove injector harness. This will be replaced with a new MTNTK Injector Harness.



4. Disconnect throttle cable from throttle body. Loosen clamps on intake adapters and remove throttle bodies. Using clamp pliers, clamp off both coolant lines connected to the throttle bodies. Disconnect coolant lines from the throttle bodies and remove throttle bodies

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5. Remove stock fuel lines from the stock fuel rail assembly as shown.



6. Re-connect the turbo fuel line assembly. Do not tighten fittings until fuel rail is installed.



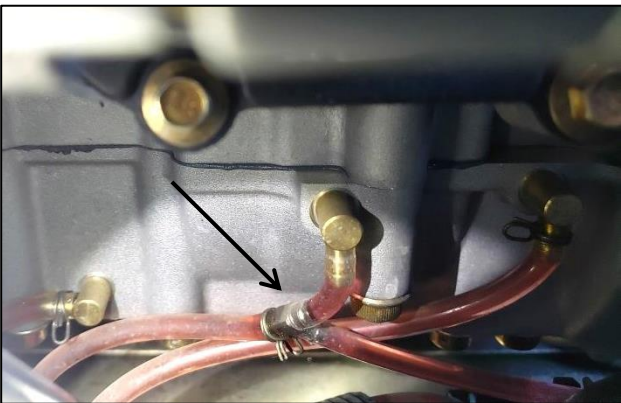
7. Using a 10-32 Tap and #21 Drill bit, carefully drill and tap the PTO Throttle body as shown. Deburr hole and remove all metal shavings from throttle body. Clean throttle body thoroughly.



8. Using Red Loctite, install the included boost reference fitting into the PTO throttle body.

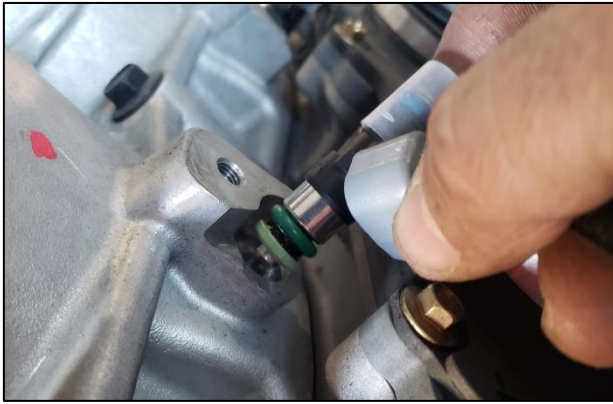


9. Remove the stock MAG Rod Oil line from the MAG Rod Oil Fitting located under the MAG Reed.



10. Install the included Turbo Oil Feed Line 'T' onto the MAG Rod Oil Fitting and Oil Line as shown. Using a syringe, fill the turbo oil feed line with 2-stroke oil until all air removed.

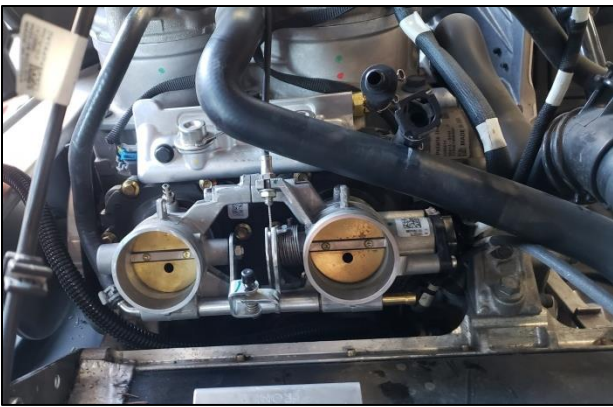
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11. Install turbo injector harness into the stock injector location. Use the stock green rubber O-rings between the injector and cylinder.



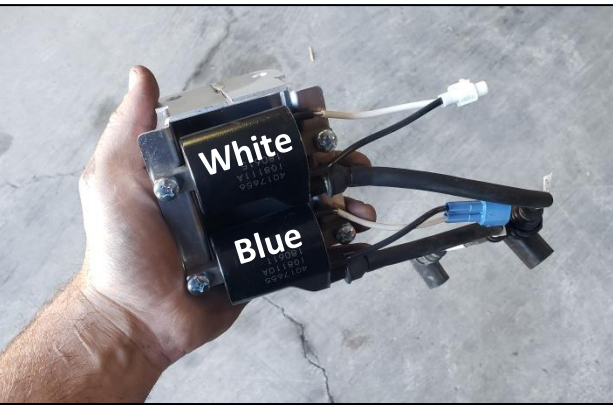
12. Install the stock fuel rail and throttle body as shown. Install the PTO coolant line onto fitting. Re-install throttle cable onto throttle body.



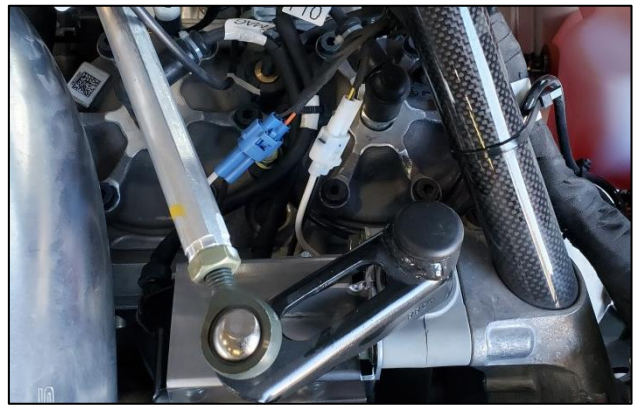
13. Route the fuel lines from the fuel rail over the stock cylinder head coolant hose as shown.



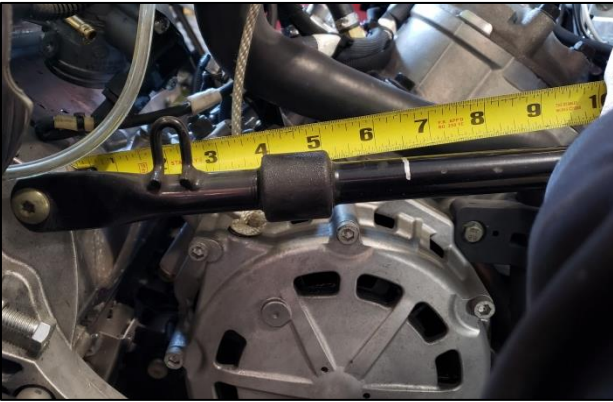
14. Install the stock fuel line elbows into the fuel rail connectors. Plug in fuel line connector.



15. Install the stock spark plug coils onto the included coil bracket as shown. This is critical for proper installation.



16. Install the coil bracket onto the lower steering stem. Plug coils into stock location. This may require trimming the stock wire harness cover so the wires don't pull tight.



17. Measure and mark 6-5/16" back from the bulkhead to the muffler frame brace.



18. Install the included Split Collar up to your mark as shown. This will locate the Turbo brace.



19. Install the Turbo Brace as shown through the frame opening using the included 25mm bolt and placing the 5/16" flat washer on the inside of the frame opening.



20. Install the included coupler nut and 5/16" washer on the backside of the frame opening to secure the Turbo Brace. Slide brace tightly up against the installed Split Collar. Tighten Bolt.



21. Install the included 14" Coolant line onto the MAG Throttle Body coolant fitting.

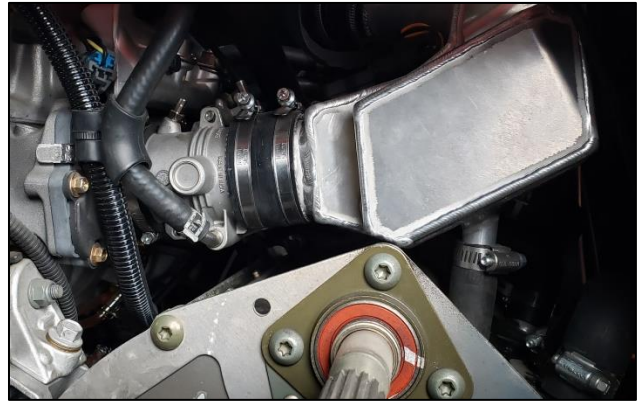


22. Route the MAG coolant line and Turbo Oil Feed Line up to the stock frame brace. Secure with a Zip tie.

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23. Install the Recoil Rope Protector by removing the pull rope from the pull handle then routing the rope through the protector. Secure sleeve to the stock rope pulley with a Zip Tie.



24. Install the Charge Box onto the throttle bodies using the included clamps. Adjust the Charge Box height using the adjuster hose under the charge box. Once aligned, tighten clamps.



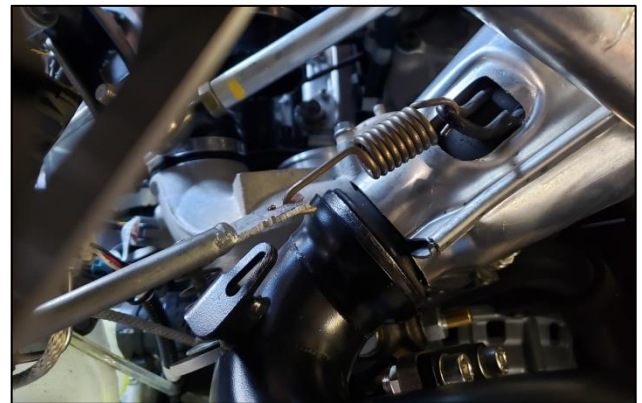
25. Remove throttle body coolant line from the coolant bottle. Install the included 7" coolant line onto the stock coolant bottle.



26. Remove the fill screw from the bottom of the turbocharger and fill 3/4 to the top with 2-stroke oil. Apply thread sealant and tighten screw.



27. Install Turbocharger onto the frame brace. Using the included M8x20mm Bolt and Lock Nut, tighten turbocharger bracket to the frame brace.



28. Use included exhaust springs to secure the turbocharger exhaust pipe. Route the coolant line from the coolant bottle to the turbocharger. Route line away from the exhaust housing.



29. Install coolant lines and turbo oil fill line to the turbocharger. Secure using #4 Clamps. Crimp supplied Oetiker clamp using side cutters.



30. Secure charge box with 40-60mm clamps. This may require rotating the compressor housing. Loosen the V-band compressor clamp to adjust.



31. Install boost reference line from the turbocharger to the boost fitting located on the throttle bodies. Secure using a Zip tie.



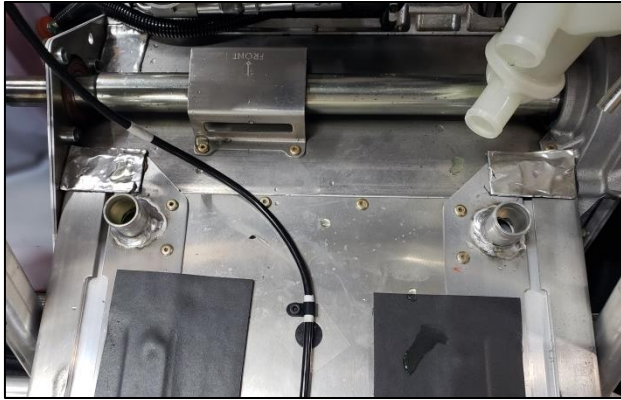
32. Slide turbo muffler into the turbo bracket in-between the washers located on the muffler spring mount.



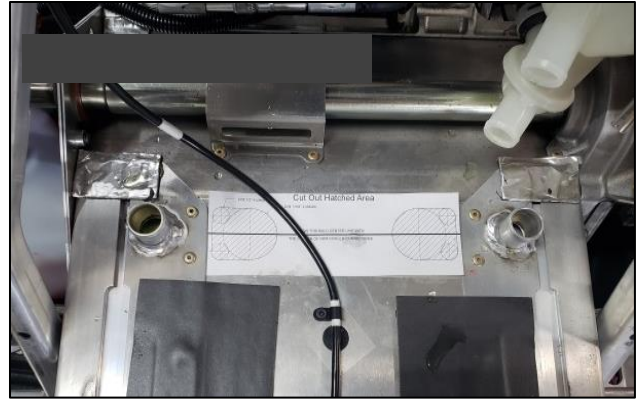
33. Secure the muffler to the turbocharger using the included V-Band Clamp. Ensure the muffler is aligned with the turbocharger outlet before you tighten the clamp. Install the stock muffler sensor into the turbo muffler.



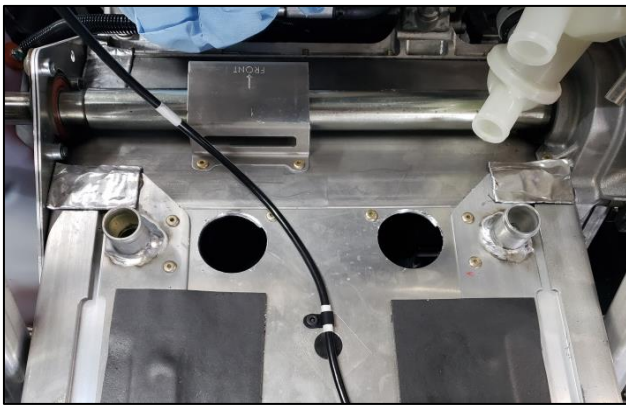
34. Install the intake adapter box onto the stock intake using the stock plastic push darts. Install turbo intake hose between the turbocharger and intake adapter box. Secure using supplied clamp



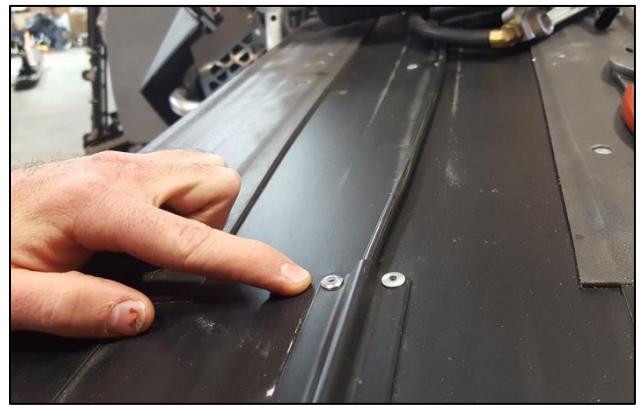
35. ***Step 35-44 Intercooled Turbo Kits only***
Remove rear suspension. Drain the cooling system. Remove Stock Coolant lines from tunnel. Cut out attached template. (See Page 9)



36. Cut out attached template and lay between the OEM cooler. Make sure you have the center line of the template directly in the middle of the OEM coolant fittings as shown.



37. Drill small pilot hole then use a 1-3/4" hole saw to drill out the larger holes. Clean out all shavings. **View Rivet Layout Sheet.**



38. Use the taillight wire guide to mark new locations for the rivets down the center. Make sure the front is centered in the tunnel before marking. Insert Tunnel Cooler through the drilled holes.



39. Secure the cooler with one rivet in the front and back. Align remaining rivets and secure. Rivet clamp plates under the tunnel as shown.



40. Measure 4" from the outside of the stock coolant line pictured above. Mark and cut. You will use this line to attach cooler to bottle.

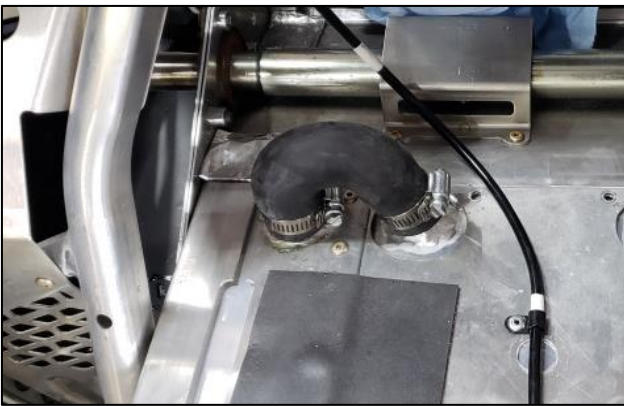
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41. Route previously cut coolant line from the tunnel cooler to the intercooled charge box as shown. Use supplied #8 Clamps to secure hoses to coolant bottle.



42. Install included 90° hose from coolant bottle to the charge box as shown. Secure using supplied #8 clamps.



43. Install 180° hose and clamps with the long leg on the new cooler fitting. Make sure clamps are tight and not rubbing against something that may cause the hose to leak.



44. Fill system with coolant. Run the engine and watch the temperature. The thermostat opens at approximately 95°F. It may take several attempts to fill the entire system.

45. Install the included clutching components. Special tools are required to change the Driven Spring.

46. Re-Install Console, gas tank, seat, hood, and side panels.

47. Locate stock diagnostic plug under the hood on the PTO side. ***Refer to Tuning Installation Instructions***

850 POLARIS AXYS COOLER CUT GUIDE

