



2011-12 Ski-Doo 800 R E-Tec
Turbo Kit Installation Instructions

The BoonDocker E-Tec turbo is a Race Gas only kit at this time. We recommend a minimum of 100 octane non-ethanol fuel or higher depending on boost levels and elevation.



Additional information and updates on BoonDocker products may be available on the following sites.

- www.boondockers.com
- www.youtube.com/boondockerusa
- www.facebook.com/boondockerperformance



1. Remove both side panels and hood.



2. Remove the seat by lifting up on the white plastic lever under the front and pulling the seat rearward.



3. Remove the torx bolts holding on the headlight / gauge cluster. Disconnect the wiring harnesses hooked to the headlights and gauge. Remove headlight and gauge cluster.



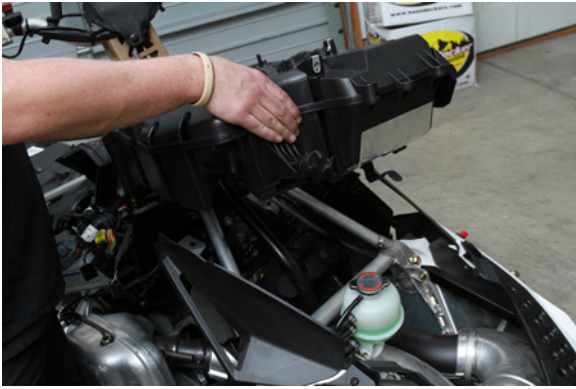
4. Remove the torx bolts holding the tank cowl to the air box plenum, remove the gas cap nut, remove gas cap and remove tank cowl.



5. Remove air intake screens from each side of the air box plenum. Be careful to not damage the clips when removing.



6. Remove the hose clamp holding the air box plenum to the intake flute.



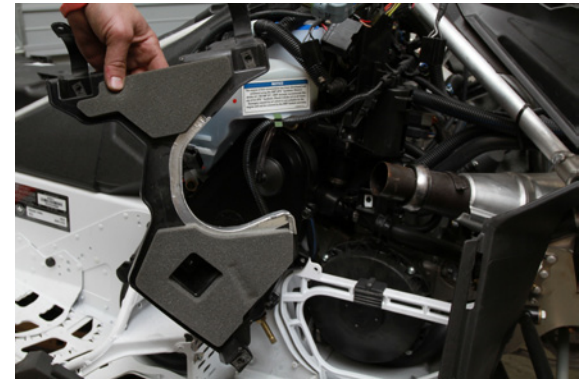
7. Remove coolant bottle from airbox plenum, remove velcro holding plenum to the chassis and remove the air box plenum from the machine.



8. Using a spring puller remove the two springs holding the silencer to the expansion chamber and the two springs holding the silencer to the chassis.



9. Remove the exhaust temp sensor from the top of the silencer and remove the silencer from the chassis.



10. Remove the exhaust noise shield.



11. Remove belt guard.



12. Disconnect sensor and twist the intake flute to remove.



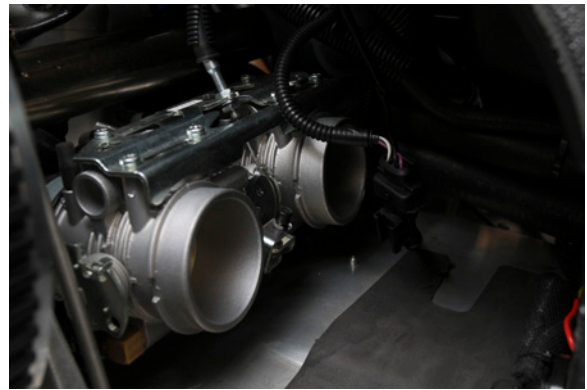
13. Remove air box by sliding it vertically off the throttle body adaptor plate.



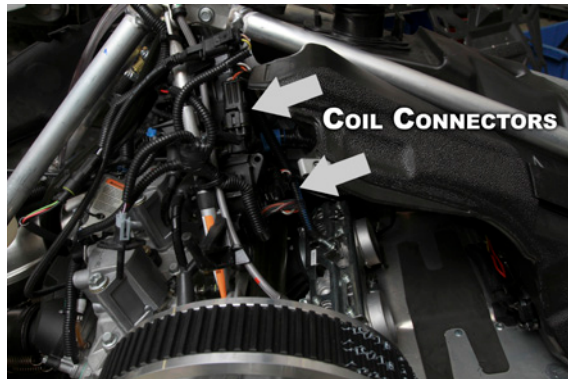
14. Remove clamps and remove throttle body adaptor plate from the throttle bodies.



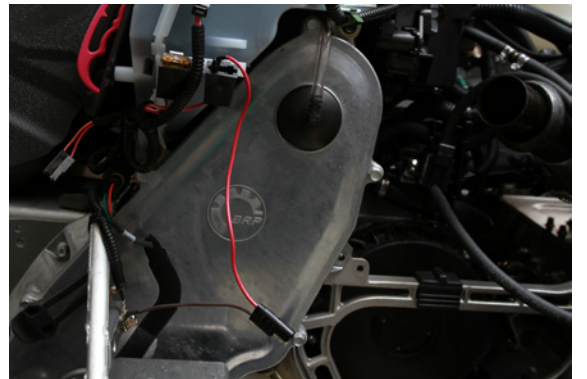
15. Remove the throttle bodies and reed cages. Install the included half reeds on top of the factory reeds. The half-reeds with slotted holes install on the matching inside reeds and the standard hole half-reeds on the matching outer reeds.



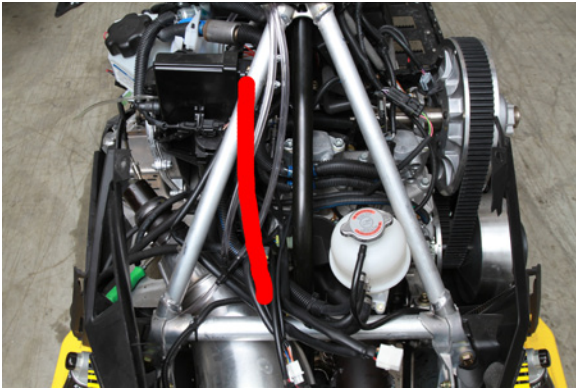
16. Connect the Control Box ADA harness to the Throttle Position Sensor (TPS) on the mag end of the throttle bodies. The factory connector should be removed and the harness plugged inline.



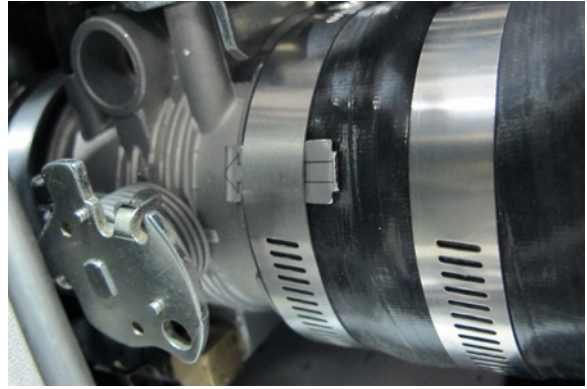
17. Connect the Control Box Injector harness to the stock coil connectors. Similar to the TPS connection in step 15 these connectors plug inline. It does not matter which of the two coil connectors on the CB INJ harness plug to the stock Coil connectors. They can be connected either way.



18. Install the Power Adaptor cable to the machine. Bolt the ground connector to the stock ground point on the footwell. Plug the spade connector into the fuse holder on the oil tank.



19. Plug the BoonDocker Power Harness into the Power Adaptor and run the harness behind the fuel tank next to the throttle bodies. Run all the the previously installed harnesses to the front of the chassis inline with the factory harness are shown above.



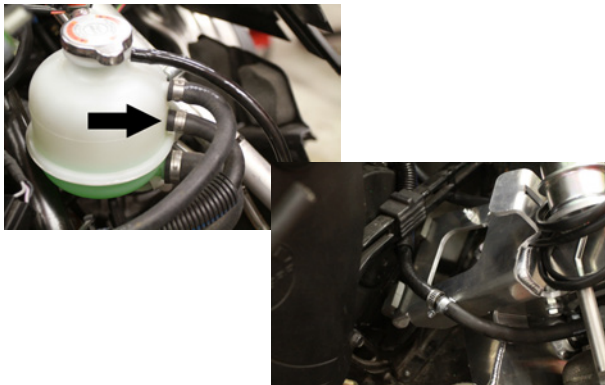
20. Install the throttle body adaptors onto the throttle bodies with keeper tabs. The tabs should be installed on the throttle bodies 180 degrees apart at approximately clock positions 10 and 4.



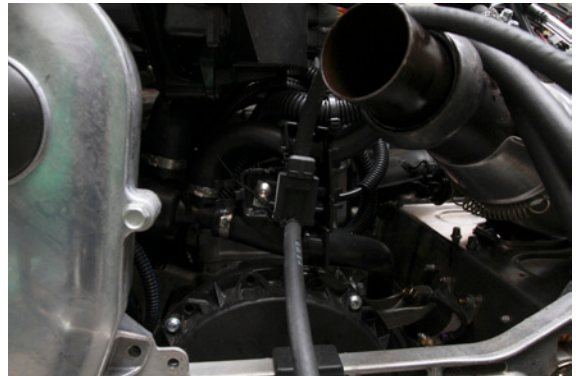
21. Install the Torque Tubes onto the throttle body adaptors and connect the the auxilliary injector connectors from the Injector Harness into the auxilliary injectors.



22. Install the Torque Tube Y-Pipe onto the Torque Tubes.



23. Remove the center coolant line from the coolant reservoir bottle and re-route to inside coolant barb on the turbo. Install the outside turbo coolant line onto the center fitting on the coolant bottle. Ensure that the coolant line routing is clear of the pipe and other hazards.



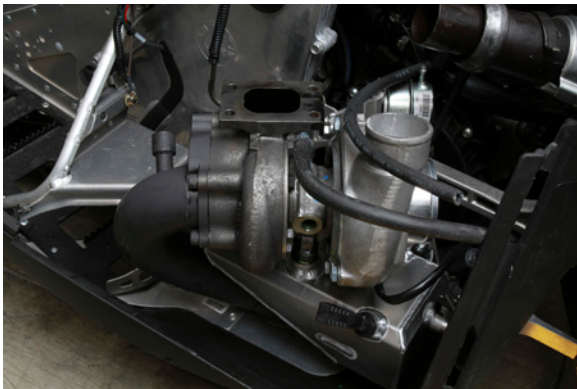
24. Before installing the turbo mount the Boost Solenoid to the plastic bracket between the coolant lines.



25. Bolt the turbo exhaust outlet to the turbo housing.



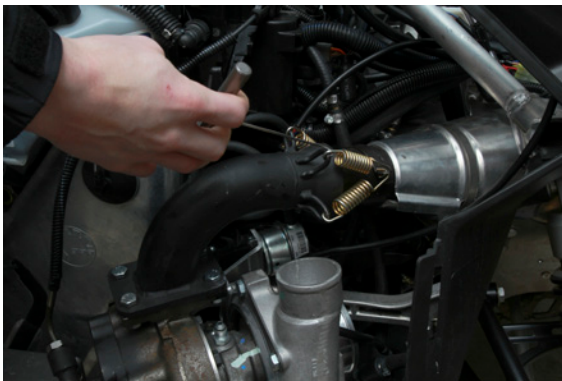
26. Install the rubber bumpers from the original silencer on to the turbo assembly. Check that the other stock silencer rubber mount is attached to the chassis.



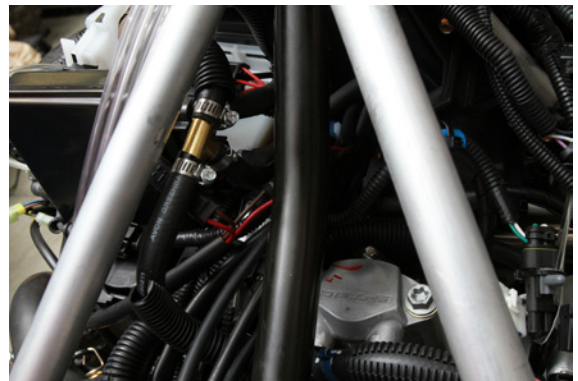
27. Install the turbo assembly into the chassis ensuring that the exhaust exits through the bellypan and the turbo bracket hangs on the chassis correctly.



28. Install the stock probe into the exhaust outlet.

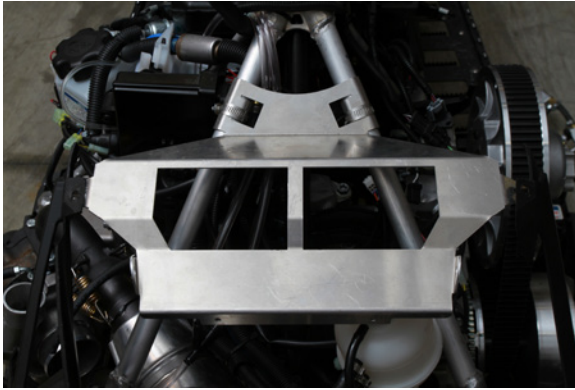


29. Bolt exhaust inlet to turbo charger and secure to expansion chamber using supplied exhaust springs.

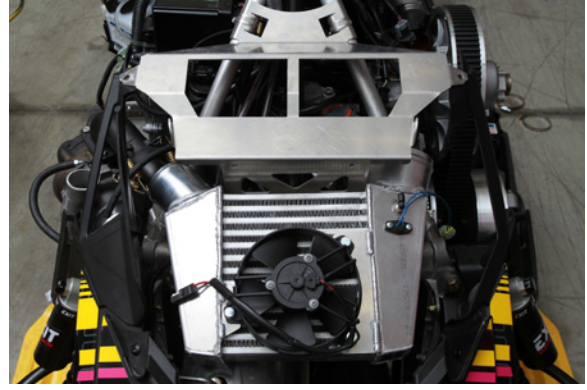


30. Cut fuel line between fuel filter and voice coils. Install barbed T coming from auxilliary fuel injectors inline.

Install Rave Check Valves as per instructions on page 9



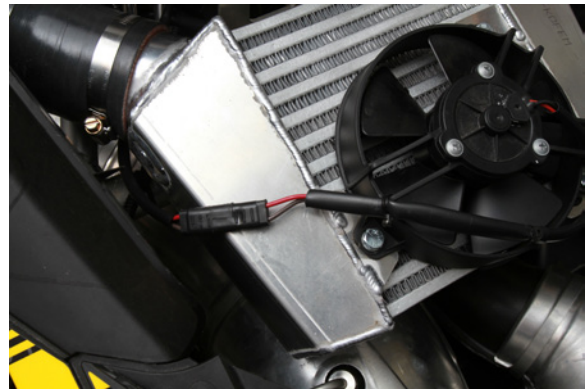
31. Install supplied sheet metal gauge cluster bracket to frame diagonals using supplied hose clamps.



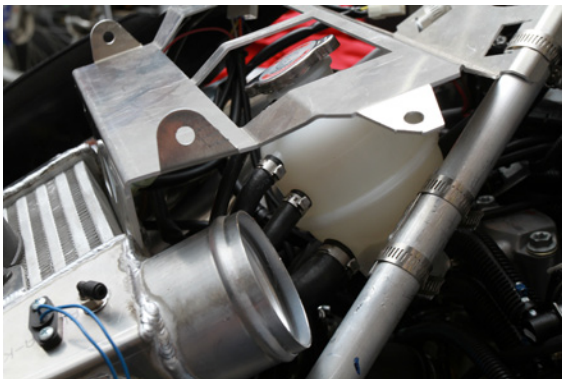
32. Install the intercooler into the chassis by securing it to the chassis crossbar using the supplied hose clamps.



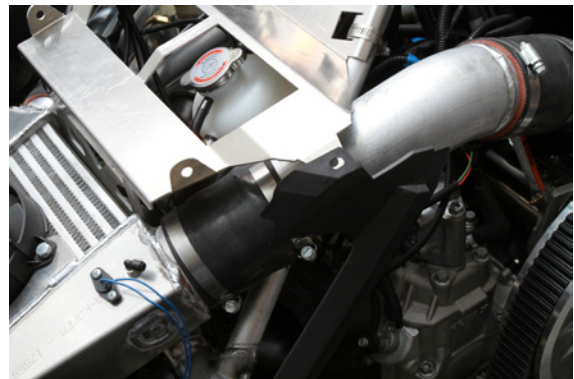
33. Install the charge tube between the turbo and inter-cooler using the supplied silicone tubes and clamps.



34. Connect the two pin rubber connector on the fan to the Power Harness.



35. Install the coolant bottle relocater bracket to the PTO side chassis diagonal. Secure the coolant bottle to the bracket and secure the bracket to the chassis using the supplied hose clamps.



36. Install the intercooler torque tube between the intercooler and Torque Tube Y. Connect using the supplied silicone tubes and secure using the supplied hose clamps.



37. Install the air filter onto the turbo inlet and secure using the supplied hose clamps.



38. Re-assemble the stock plastics in the reverse order of how they were remove.



39. Remove the foam from the inside of the hood so that the intercooler fan has room to clear.



40. Fill the turbo tank with T2C oil. Remove the top turbo oil line, start the machine to verify oil flow to the turbo. Reconnect the oil line.



- 41. Install supplied clutching components.
- 42. 8 oz of BoonDocker T2C Turbo Oil should be poured into the fuel tank everytime it is filled. This extra oil will compensate for the additional fuel being injected by the auxilliary injectors.
- 43. It is recommended to change the turbo oil and filter every 300 miles or when the oil becomes discolored. BoonDocker offers a Turbo Oil Service Kit that includes new oil, filter and clamps.

FUEL

The BoonDocker E-Tec turbo is a Race Gas only kit at this time. We recommend a minimum of 100 octane non-ethanol fuel or higher depending on boost levels and elevation.

RAVE VALVE CHECK VALVE INSTALLATION



1. Red and Black check valve assembly with 3/16" plastic vacuum T and hose.



2. Install red and black check valve assembly to the metal (chrome) port on the RAVE valve solenoid, and reconnect the clear RAVE valve hose to the red and black check valve assembly.



3. Blue check valve assembly with 3/16" plastic vacuum T and hose. Note flow direction of check valve.



4. Cut the hose to the RAVE valves before RAVE valves, install blue check valve assembly into RAVE valve hose . Do not do not connect anything to open end of the blue check valve.

