

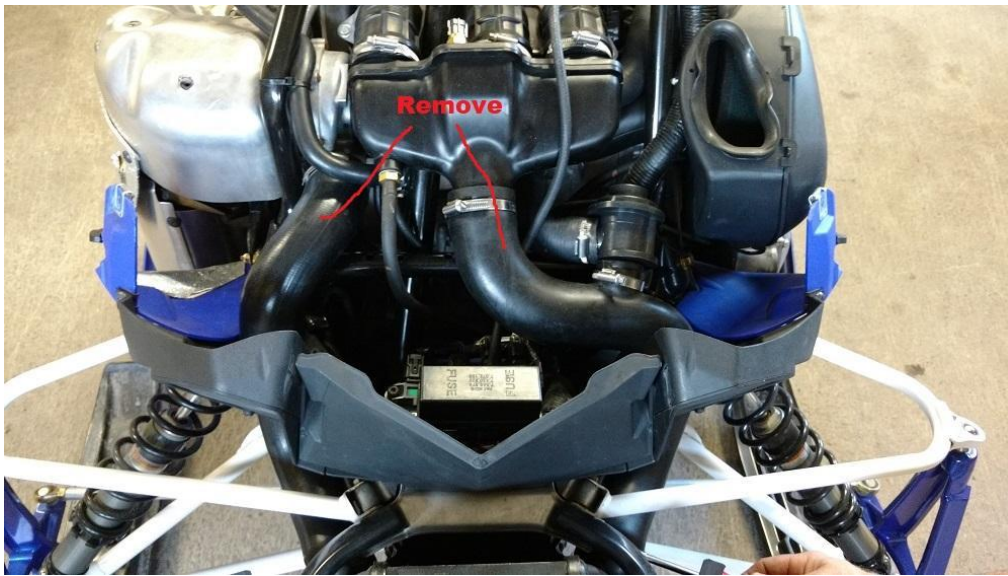
GSE PERFORMANCE

POWER STEERING FOR ARCTIC CAT & YAMAHA

Sidewinder / Thundercat Instructions

You will need several tools for this installation – it is recommended that a trained professional install this kit. When we refer to LH or RH it is understood that you will be standing in the front of the machine looking back at it.

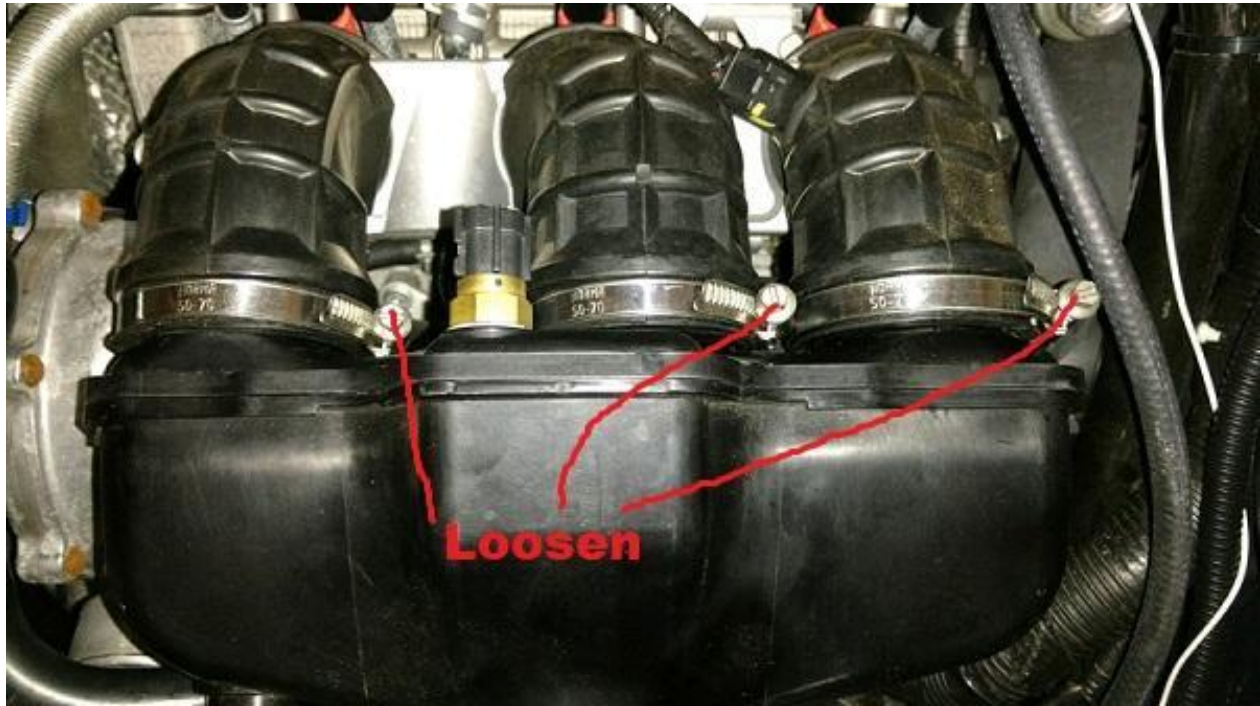
First thing to do is both side panels and the hood off. Next you can remove both turbo hoses as shown in the following picture.



Next remove the small hose from the upper side of the airbox shown below.



Next loosen the three hose clamps on the airbox shown below.



Next unplug the sensor on the top left side of the airbox shown



Next remove the hose from the lower RH side of the airbox shown below then remove the airbox.

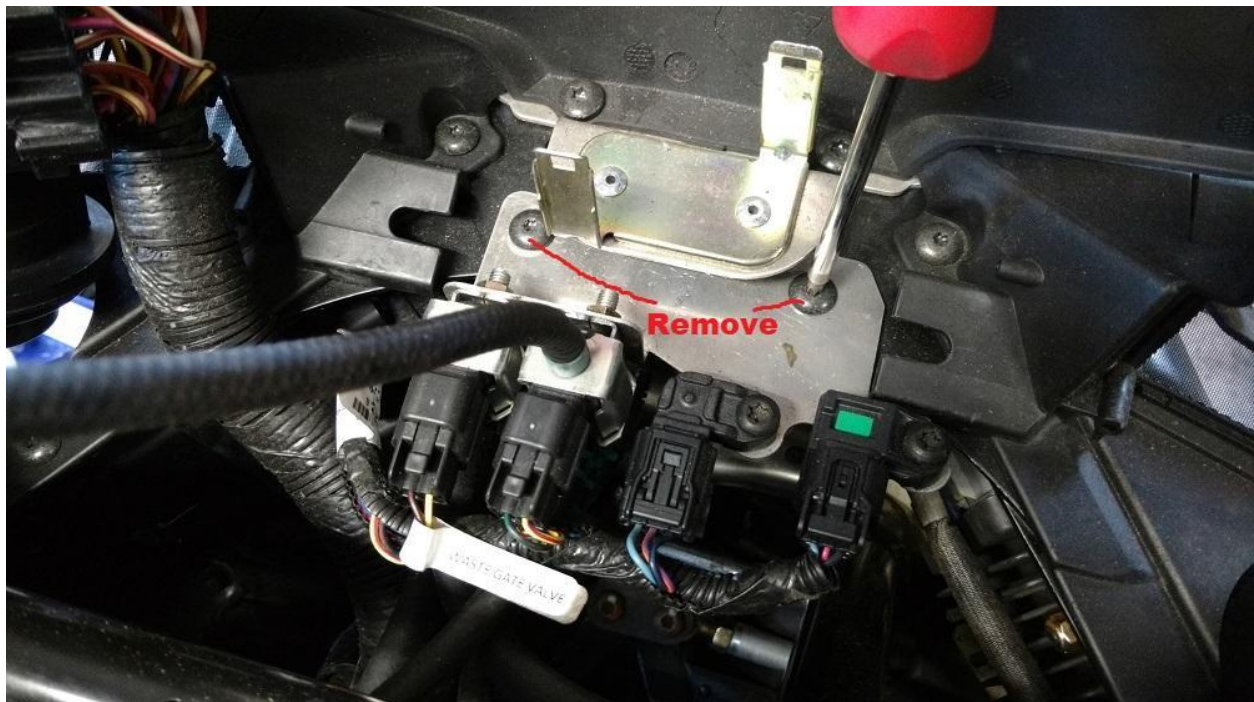


Next you can loosen the clamp on the blow off valve shown in the picture above and then pull the hose off and swing it off to the RH side.

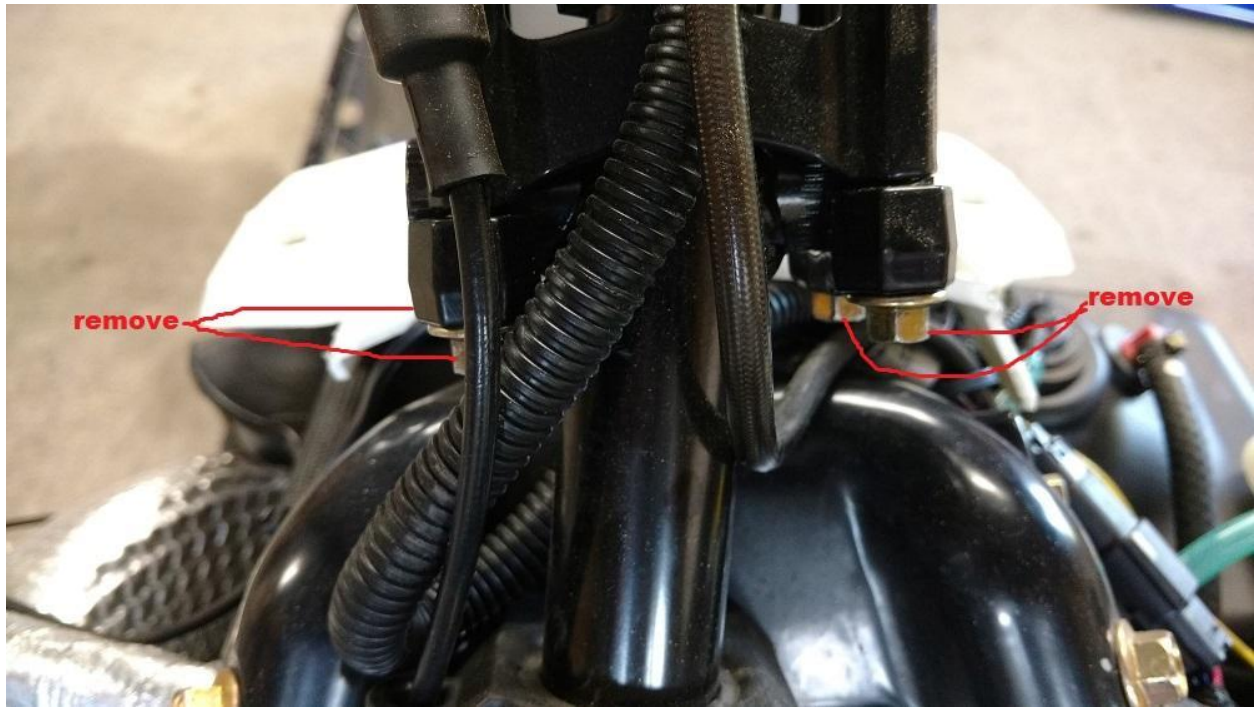




Next remove the fuse box by prying the holding tabs out and lifting on the fuse box, shown above. Then pull the fuse box off to RH side out of the way.



Next remove the screws from the sensor/ relay mounting plate picture next using a T25 torx driver. Also swing this plate to the RH side out of the way.



Next remove the bolts from the lower side of the handlebar riser. Picture above.

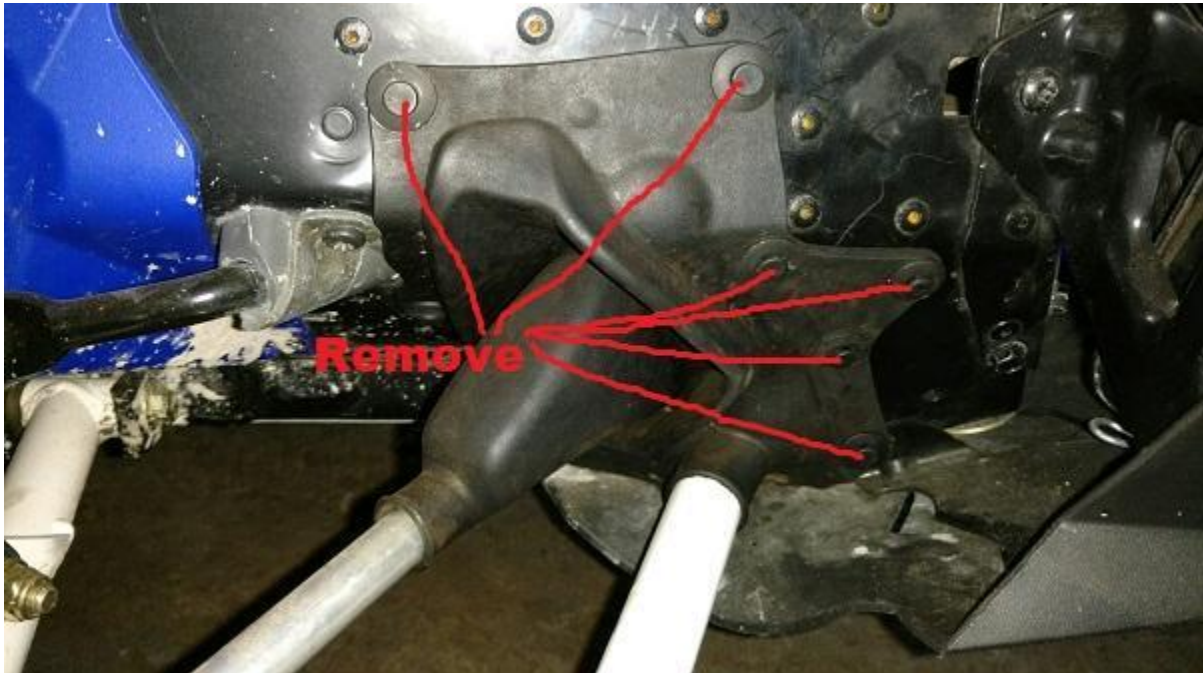
Once you have removed all four bolts, you can lay the bars back onto the gas tank.



Next step is to remove the nuts from the upper steering post bushing using a 10mm socket. Once the nuts are removed you can take the top half of the bushing off.



Next you will want to remove the nut from the steering link rod in the front of the bulkhead seen in the picture above.



Next look down at the rubber boot covering the A-arm and tie rod. Remove the Six push darts shown in the picture in the picture above.



Next step is to remove the nut from the bottom of the steering post using a 17mm deep socket and ratchet.

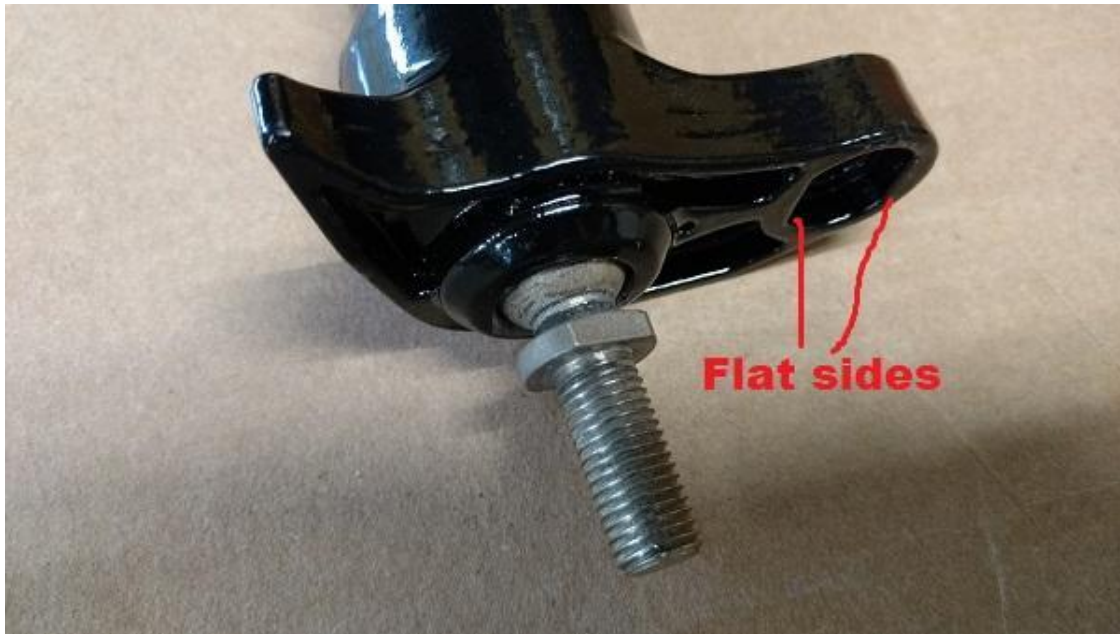
After removing the steering post nut, you can pull the post up and down.

You can now install the lower portion on the steering post. *Take note of the flat side of the stud making sure to put it against the flat side of the bracket in the bulkhead.* See picture above.



Once in position you will have to hold down with some force to keep the stud from rotating while tightening the nut.

Next you can install the rubber boot and the push darts and then move on to the steering link rod.



When installing the tie rod end into the steering post be sure the flat sides line up properly and goes all the way inside the post. See picture above.



Next step is to remove the motor mount nuts. First remove the clutch side using a 15mm socket and a long extension on the bolt.

Use a 18mm socket with a half drive ratchet on the nut.



Once the nut is off you can slide the bolt part way out - leave it flush with the bracket. Now you can remove the other side motor mount nut using a 15mm open end wrench and the same 18mm socket. See below –

KIND OF TRICKY!



Once the exhaust side nut is off you can slide the bolt out part of the way so that it is just even with the bracket.

If you have not pulled the wired to the RH side yet you will want to do so now so you have room to install the power steering motor and mounting plate.

Now you can put the steering motor in place, slide it in the splines of the lower portion of the steering post making sure the three bolt holes are on the upper side.



Important: When installing the set screw in the lower end of the steering post you will first want to look in the hole and make sure it is lined up with the groove in the steering motor shaft. Once you have it lined up you can put the set screw in and tighten it up with a 5/32 Allen wrench. Next be sure to tighten the jam nut using a ½ inch wrench.

Next you can put the mounting plate down in and work everything into place. it has to be slid over the top of the steering motor and then slide into place on the engine mounts. this can be a little tricky but once everything is in the proper position it slides right in.



Once the mount plate is slid over the upper shaft you can slide the mount plate into position on the engine mounts.
See below picture.



Once in place you can push both engine mount bolts back in all the way and put the nuts on the do not tighten them yet. Next you can install and tighten the three bolts in the steering motor. See picture below.



Now you can go back and tighten the two engine mount bolts.

Next you will be able to install the steering post. Make sure your skis are pointing straight forward and the T at the top of the post is straight across and in the proper location. Once you are sure everything is lined up where it needs to be. You can slide the splined yoke into the steering motor splines. Once again make sure the groove is in the line with the set screw hole. Then you can install the set screw and tighten it and the jam nut.

Next you can install the upper bushing and nuts.

(IT IS VERY IMPORTANT NOT TOO OVER TIGHTEN THE NUTS)

Make sure the steering post still turns freely when you snug the nuts on the bushing.



Next step is to install the power steering control module.



Snug the two bolts using a 10mm socket. Next you can plug the motor wires into the module. See picture below



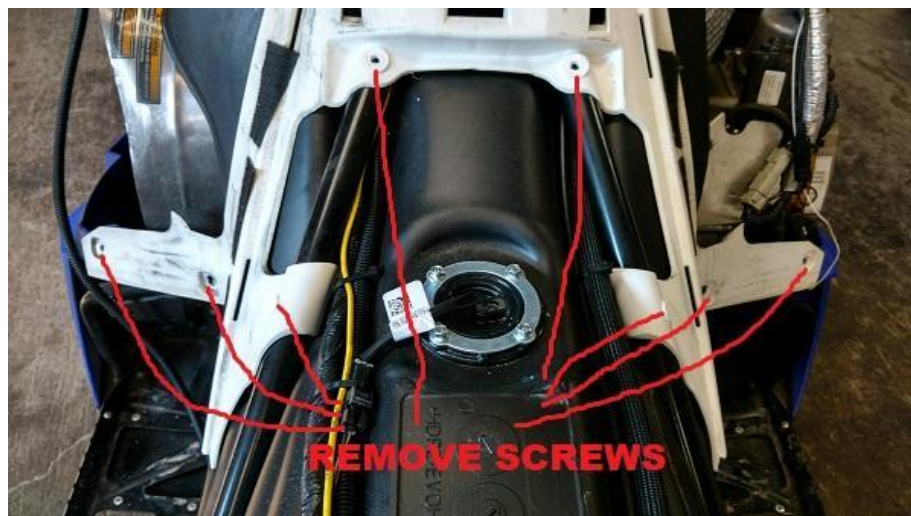
Put a zip tie around the steering motor harness and the voltage regulator wires to hold it in place.



Now you can plug the power source harness into the module and route it and the single white wire up along the male harness of the snowmobile. See picture below.



When you get to the upper steering post brace stop and then take the gas tank cover off.



Next you can route the positive and negative wires as shown below.



Connect white wire using the supplied red connector to the red w/blue stripped wire from the accessory plug.



Now you may reinstall the sensor/relay and then the fuse box.

Refer to previous picture for placement of each item.

Next reinstall the turbo hoses and the blow off valve. Be sure to tighten all the clamps so there is no boost pressure leaks.

Next you can reinstall the handlebars to your desired position.

Now the hood and side panels can go back on.

Be sure to check the alignment of the handlebar's vs the skis, you may have a slight adjustment if they are not in line.

**This kit is manufactured by RRF and sold exclusively by
GSE PERFORMANCE.**

Be sure to check out our performance mufflers and high flow air filters

If you have any questions about any of the steps you can call us at

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