

# REV DYNAMICS

AIR SUSPENSION INSTRUCTIONS

Congratulations and thank you for purchasing the Rev Dynamics digital air suspension system for your Polaris Slingshot. If you have any questions while installing, please do not hesitate to contact us for any technical questions you may have.

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In addition to our Slingshot specific instructions we have also included the Ridetech installation manual. Please read through all before beginning for the best understanding of the various components and safety precautions. Enjoy your new kit!

Installation of this product should only be performed by persons experienced with installation of aftermarket performance parts and proper operation of high performance vehicles. If vehicle needs to be raised off the ground for installation, the installer must use proper jacks, jack stands and/or a professional vehicle hoist for safety of the installer and to protect property. If the vehicle is lifted improperly, serious injury or death may occur!

## SUSPENSION INSTALLATION NOTE

Installation of this product is a modification to the vehicle suspension. As a result, the vehicle may handle differently than that of factory equipped vehicles. As with any vehicle extreme care must be used to prevent loss of control or roll over during sharp turns or abrupt maneuvers. Always wear seat belts, and drive safely, recognizing that reduced speeds and specialized driving techniques may be required. Failure to drive this vehicle safely may result in serious injury or death. Do not drive this vehicle unless you are familiar with its unique handling characteristics and are confident of your ability to maintain control under all driving conditions. Route all air lines in a safe area, away from heat, and moving parts as loss of air pressure can result in the slingshot lowering to the ground while moving.

Some modifications (and combinations of modifications) are not recommended and may not be permitted in your state or country. Consult your owner's manual, service manual, instructions accompanying this product, and local laws before undertaking these modifications. You are responsible for the legality and safety of the vehicle you modify using these components.

# BRACKET IDENTIFICATION

Fig 1

Rear Tail Pan

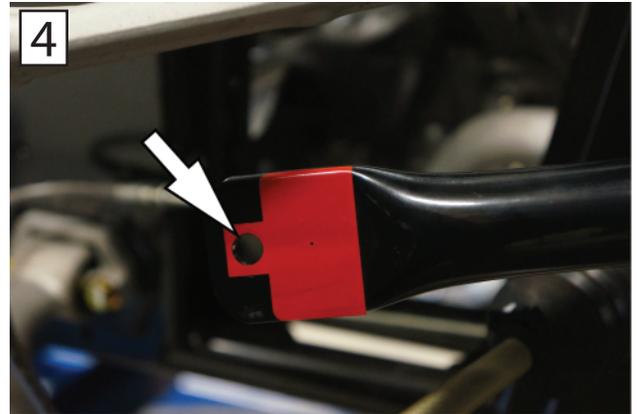


In preparation for install remove rear body panels. In addition to what is pictured above removing seats, panel behind seats, luggage compartments, and back panel in front of the rear tire will give a ton of room to cleanly run all wiring and air lines. It will also make the rest of your install go much quicker.

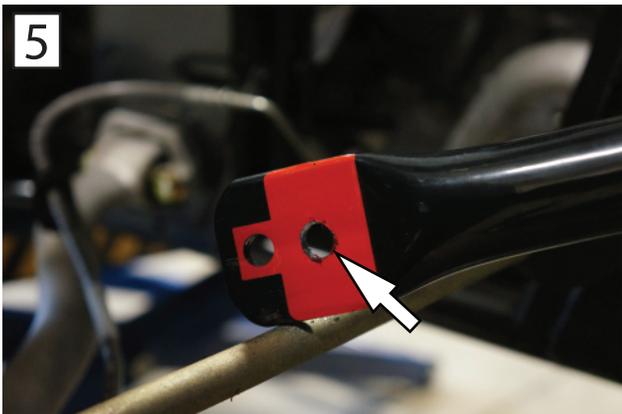
# SWAY BAR AND SHOCKS



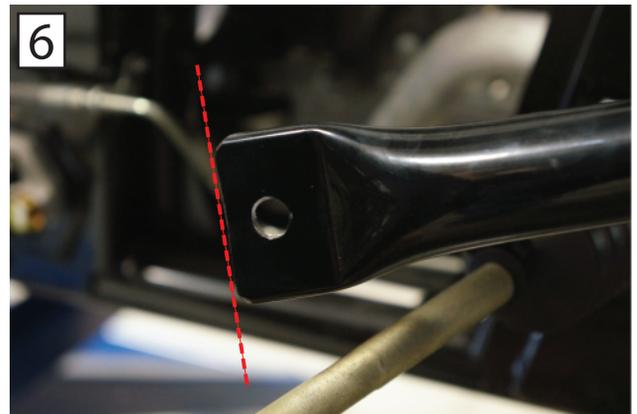
Before installing the shocks, the original sway bar needs to be trimmed to provide clearance with the air shock.



Line large hole up with the original and apply template decal to sway bar.



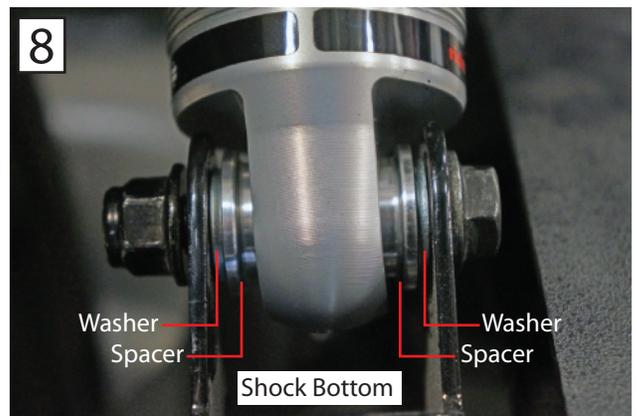
Drill the small template hole out to match the factory hole size.



Trim the end of the sway bar off and paint. Bolt up the link the same as factory and torque to spec.



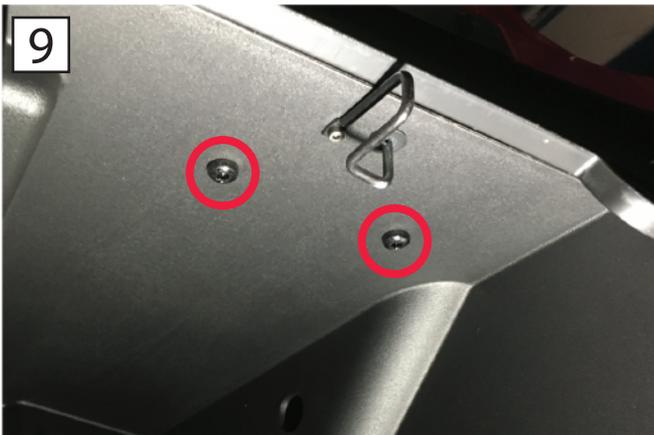
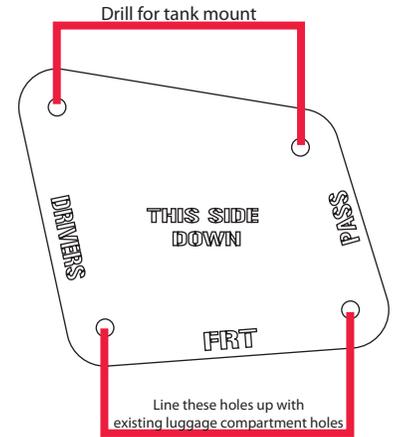
Now is a good time to set your shock rebound dampening. Turn the black dial all the way in and back out seven turns. This will provide a very nice ride and a good place to begin tuning them to your personal taste. Install 90 deg air fitting on each shock.



The top of the shock uses the OEM Polaris bolts and two machined spacers. The shock bottom will mount the same but with a 10 mm washer on each side. After install torque all bolts to OEM Specs. Make sure rear shock has clearance between bag and gas tank bracket when inflated.

# AIR TANK MOUNTING

The included vinyl decal template will allow you to easily line up your holes for mounting the air tank in the top of the passenger compartment.



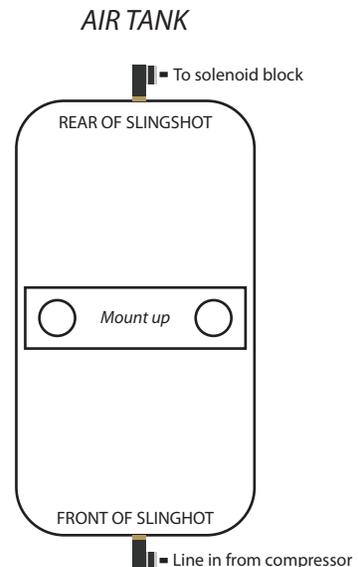
This step can be done with luggage compartment in or out. If you haven't removed the luggage compartment, remove the two bolts securing the luggage compartment.



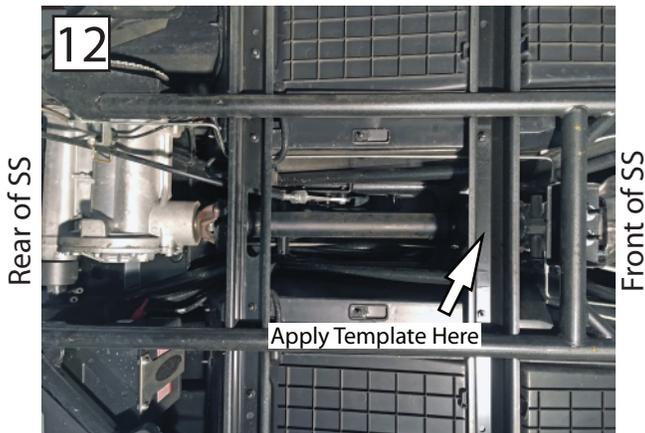
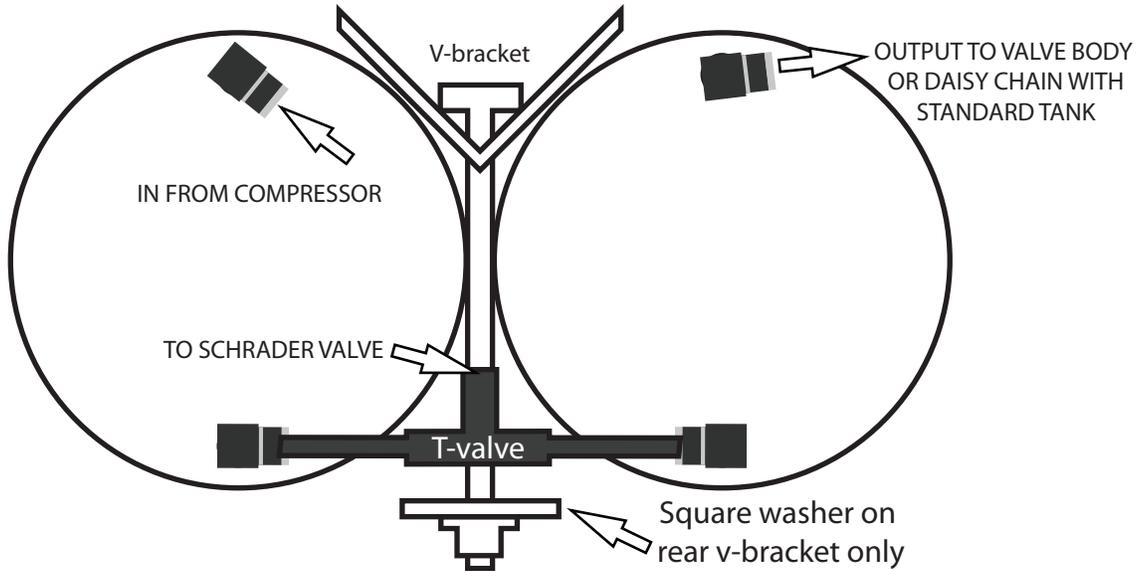
Peel the template sticker off its backing and align as pictured with the OEM holes. Now drill out the two rear holes for mounting the air tank. Once you are finished remove the template.



Drill Holes for Air Lines, run air lines, and install tank. Bolt tank with included 6x16mm flanged bolts, 1.5" washers, and flanged nut. (1.5" washer goes on top of luggage compartment)



# OPTIONAL TORPEDO TANK MOUNTING



With the Slingshot securely raised on jack stands or a vehicle lift apply decal template to the front bar in between the welded nuts as shown in step 24 and 25.



With the template applied, drill the hole in the center to 5/16". Remove template.



Loosen the two transmission nuts and jack/raise the transmission to gain clearance for installing tanks. Be careful to not raise the transmission to much and pinch anything.

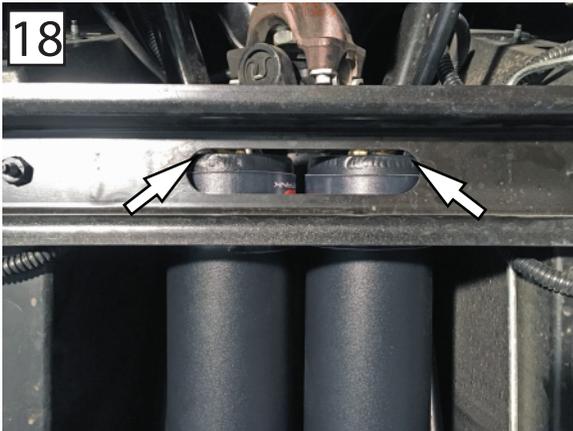


With the transmission raised push the e-brake cable over by hand and slide the first tank in as shown. Once it is in roll it to the driver's side and repeat for the second tank.

## OPTIONAL TORPEDO TANK MOUNTING



With both tanks in you can now put your v-brackets into position. Install the front first in between the tanks. The "V" will set in between the tanks and the stud will go through the hole you drilled. Repeat for the rear. The rear stud will go through the square washer. **Do not tighten yet.**



Line your tanks up with the edge of the OEM cut out and tighten v-bracket nylon lock nuts. (V-bracket not shown) For added safety you can apply thread lock to nylon lock nuts before tightening. **Do not overtighten these as tank damage may occur.**



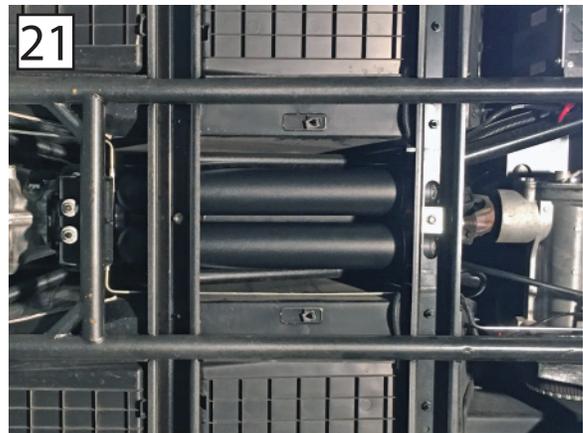
The Schrader valve can be installed in many different locations such as the battery or luggage compartment. You can use this valve to periodically drain any moisture out of the tanks or to fill them with air in an emergency. (Do not exceed 150psi)



Install the t-valve on the bottom two tank fittings as shown. (Gain clearance by rotating the tanks) Aim the t-valve up and make sure the push to connect fittings are secure.



Lower your transmission and re-torque the two nuts to spec ( $40 \pm 4$  lb-ft). Now run your air lines into and out of the tanks push to connect fittings. Make sure all lines are secure and clear of any moving components.

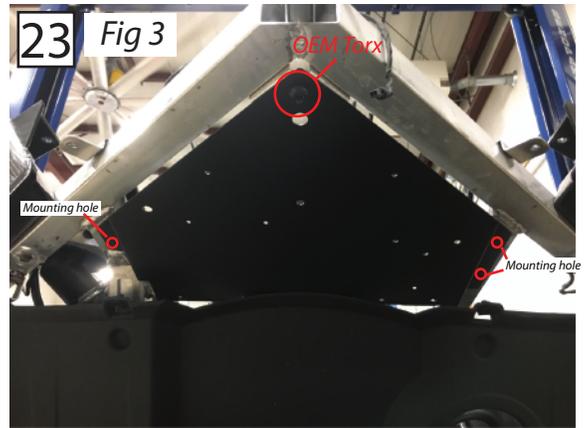


Only lower the Slingshot when it is level on level ground and there is nothing that will come in contact with the air tanks. Periodically check air tank v-bracket nuts and air tanks to ensure they are tight and all lines are secure at each oil change.

## TAIL PAN AND COMPONENT INSTALL



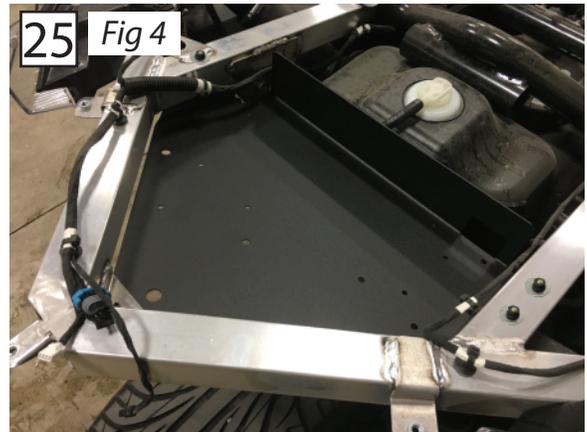
We are now ready to install the rear tail pan.



Slide the rear tail pan in place and temporarily install torx bolt in rear mounting hole.



Align pan side to side and drill through the three mounting holes (Fig 3) and rear square tubing with a 5/16" bit. Bolt pan to frame at each mounting hole with M6x50mm bolt, .875" washer, 1" washer, and M6 nylon locknut.



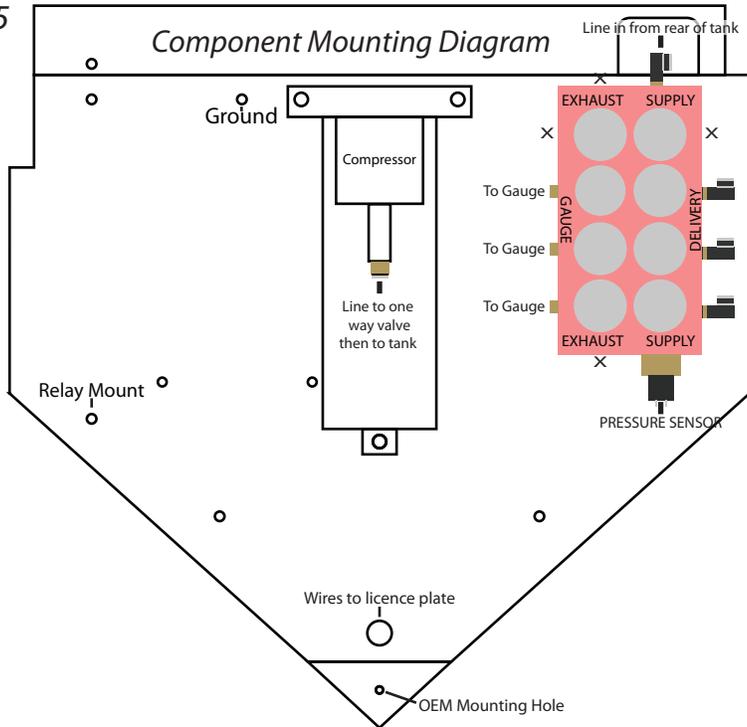
You can now begin installing all the components into the pan, wire and run as shown in fig 4, 5, & 6. Red and black 10-gauge wire is included for the + and - from the battery. Run the battery - wire and bolt the ground wires to the rear tail pan.

We recommend a liquid thread sealer for best results but Teflon tape will work also. We strongly recommend an Anaerobic Thread Sealer such as Loctite's (P/N 565).

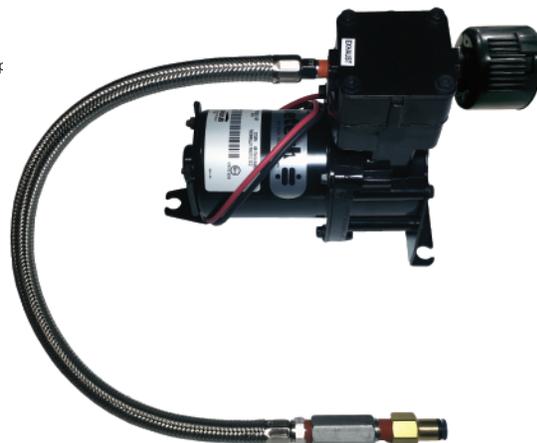
Once everything is functioning and the SS is aired up check all air fittings for leaks by misting soapy water on them. For safety double check clearance around all air bags when aired up.

# WIRING AND COMPONENTS

Fig 5

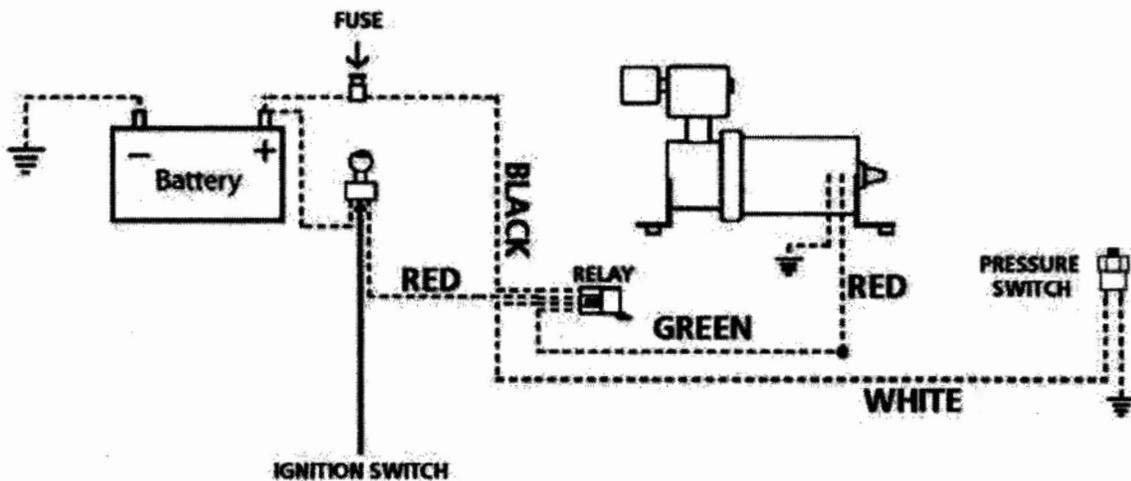
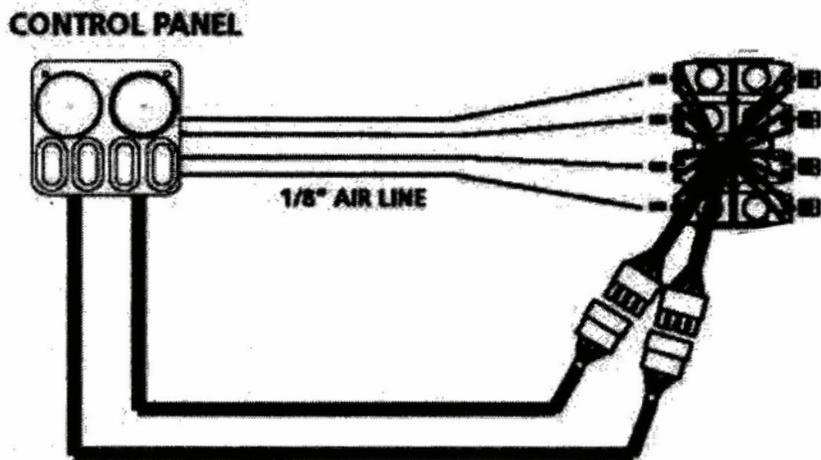


Install compressor fittings as pictured



Install one-way valve on braided hose. Make sure the arrow points away from the compressor.

Fig 6



# GAUGE AND SWITCH MOUNTING

If you plan on mounting the gauges and switches somewhere else or using the ridetech gauge panel disregard these steps:



Center drill bit in this hole

The included vinyl decal template will allow you to easily mark where you need to drill for the gauges. This step is similar to drilling the sway bar.



Peel and line up the decal on the center console. The small holes in the middle of each circle are where you will drill. Before drilling make sure you are clear of any wiring or lines behind the panel. We recommend removing the center console for the cleanest install possible. Drill through both layers of plastic.



Polaris OEM Dash Switch  
black=switch boarder and  
white and grey inside = cut out  
red = line up outside edge with oem switch

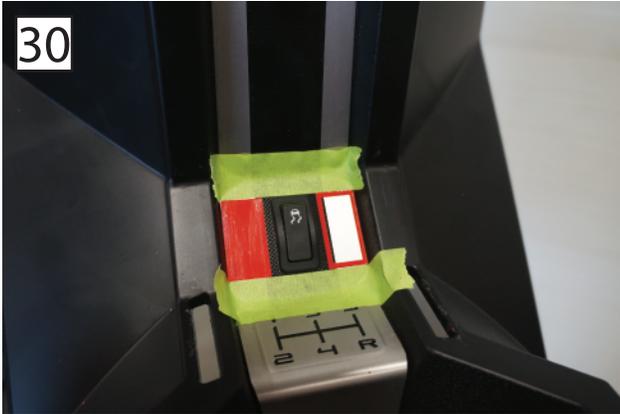


Fig 7

To mount your switches on the dash peel out the vinyl sticker and line it up as shown in the picture. Make sure the black rounded bottom is up against the plastic.



# GAUGE AND SWITCH MOUNTING



30

Polaris OEM Dash Switch  
red=switch boarder  
black = cut out



If you didnt mount your switches on the dash in the last step disregard this step:

Apply the vinyl template were you would like to mount the oem switch. Peel out the center rectangle (shown on right hand vinyl in picture).



31

Now cut out the center you peeled out without cutting the red.



32

Remove your vinyl template and install oem switch.

Now that all your components are plugged in and wired reinstall all body panels and components. Double check that everything is torqued to spec and that all installed parts don't come into contact with any moving parts.

Enjoy your finished air suspension and thank you again for your purchase. If you post your Slingshot project on social media be sure to tag us.

Instagram: @RevDynamics

Facebook: @RevDCP

If you need any further assistance or clarification, please don't hesitate to contact us.

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