#### **ROTTWEILER PERFORMANCE** SOLERA INTAKE SYSTEM

NOTE: PLEASE READ AND UNDERSTAND ALL NOTES, PRECAUTIONS, AND WARNINGS WITHIN THIS DOCUMENT BEFORE PERFORMING THESE PROCEDURES. IT IS SOLELY YOU AND/OR THE INSTALLER'S RESPONSIBILITY TO ADHERE TO THE GUIDELINES OF ALL FACTORY TORQUE SPECS AND PROCEDURES MANDATED BY THE MANUFACTURER OF YOUR MOTORCYCLE. ALWAYS WEAR THE APPROPRIATE SAFETY EQUIPMENT. IF YOU BELIEVE THAT THESE INSTRUCTIONS ARE BEYOND YOUR CAPABILITIES, YOU SHOULD SEEK OUT A PROFESSIONALLY TRAINED MOTORCYCLE

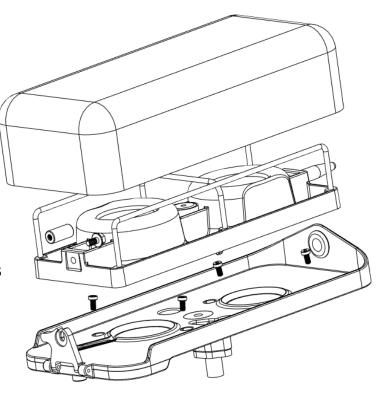
MECHANIC TO INSTALL ANY AFTERMARKET PRODUCT/S INCLUDING THESE.

#### **INSTALLATION TIME:**

• 2-3 Hours

#### TOOLS NEEDED:

- T20 TORX
- T30 TORX
- T40 TORX
- 3mm ALLEN
- 6mm HEX or SOCKET
- 8mm SOCKET
- NEEDLENOSE PLIERS
- SIDE CUTTERS / FLUSH CUTS



#### **ONLINE INSTRUCTIONS QR CODE LINK**

Scan this code with your phone's camera or a QR code reader to get direct links to all our online instructions.





#### **CALIFORNIA EMISSIONS WARNING**

THE CALIFORNIA AIR RESOURCES BOARD (CARB) DOES NOT PERMIT THE REMOVAL OR ALTERATION OF OEM EMISSION CONTROL DEVICES UNLESS CERTIFIED BY CALIFORNIA AIR RESOURCE BOARD, OTHER THAN FOR RACING VEHICLES ON CLOSED COURSES. THESE PRODUCTS ARE LEGAL FOR USE ONLY IN COMPETITION RACING VEHICLES AND MAY NOT BE LEGAL IN CALIFORNIA FOR USE ON PUBLIC ROADS, STREETS, OR HIGHWAYS. CHECK YOUR LOCAL LAWS AND REGULATIONS TO DETERMINE IF COMPLIANCE IS NEEDED IN YOUR CITY OR STATE. IF YOU ARE IN CALIFORNIA AND HAVE PURCHASED THIS ITEM WITHOUT THIS KNOWLEDGE, PLEASE MESSAGE US FOR A FULL REFUND AND FREE RETURN SHIPPING.

#### **CLEANING & OILING YOUR ROTTWEILER PERFORMANCE FILTER**

For the best overall results and longevity of your filter it is recommended that you use biodegradable filter oil systems and follow the instructions below. Always use the products in accordance with instructions. Improper use of cleaning chemicals or use of non-approved chemicals can damage filter materials.

Most biodegradable oiling kits are intended to be used in a two-part cleaning process where the cleaner breaks down the sticky dust retention oil on the filter, which is then washed off using warm water and washing up liquid/dish washing soap.

- 1. Follow the instructions for the brand of oil in which you have used to originally oil the filter. Mixing cleaning solutions between brands can lead to poor performance during the cleaning process.
- 2. The next step is to wash the filter out in warm soapy water for a final rinse. Fill a sink, washing bowl or bucket with a strong solution of water and liquid/dish washing soap, then submerge the filter in the solution. You should see any remaining oil and dirt residue rising out of the filter as it enters the water which may turn white as it mixes with the water/detergent mix. Repeat this process until you are satisfied that the filter is completely clean and then rinse with clean water only to ensure no dish washing detergent is left on the filter.

THIS STAGE OF THE PROCESS SHOULD TAKE NO MORE THAN 4 – 5 MINUTES, LEAVING THE FILTER SUBMERGED IN WATER FOR A PROLONGED PERIOD MAY CAUSE THE GLUES IN THE FILTER TO SOFTEN AND EVENTUALLY BREAK DOWN.

Now the filter is clean you will need to leave it in a warm, dry place until is fully dried out. DO NOT USE A HIGH-PRESSURE AIR-LINE OR HEAT GUN TO SPEED THE PROCESS UP.

Once the filter is dry, you may re-oil the filter element with your chosen brand of foam filter oil.

UNDER NO CIRCUMSTANCES USE COTTON GAUZE FILTER OIL, ENGINE OIL OR ANY OTHER OIL NOT SPECIFICALLY MANUFACTURED FOR FOAM AIR FILTERS.

#### INSTRUCTIONS

Remove the fuel tank. Click on either link below for detailed instructions, then return to this document to finish the SOLERA intake installation.

- 2014-2016 1190 Adventure video instructions <u>CLICK HERE</u>
- 2017-2020 1290 Adventure written instructions <u>CLICK HERE</u>

Unplug the air temp sensor.



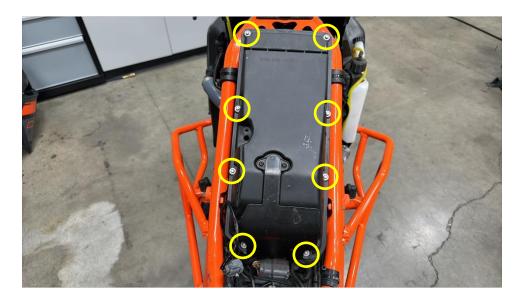
(T20 TORX) Remove the air temperature sensor on top of the air-box lid.



(T20 TORX) Using the same screws, reinstall the air temp sensor into the base of the Rottweiler Intake plate.



(6mm HEX) Remove the 8 screws in the air-box lid.



(PLIERS) Remove the spring clip on the crankcase breather hose at the back of the air-box and slide the hose off. Remove the lid and set it aside.



(T30 TORX or 6mm HEX) Loosen the four <mark>5mm bolts</mark> and remove both <mark>velocity stacks</mark>.



Lift up on the rear of the air-box and pull back just enough to free it from the throttle body grooves that locate its position.



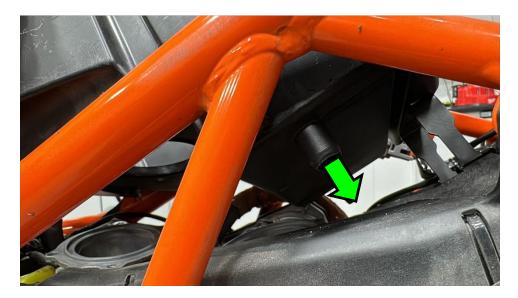
Pull up the front of the air-box and then pull the SAS valve off of the mount by pulling the rubber out of the stakes attached to the bottom of the air-box.



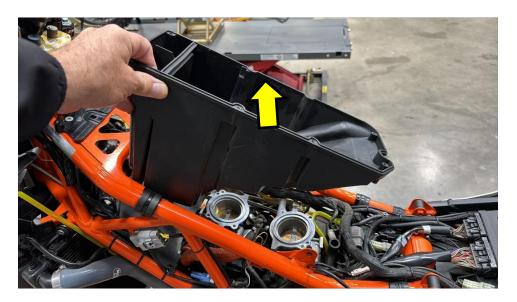
Remove the air-box drain line. This is located at the front left lower corner of the airbox. Take this out completely.

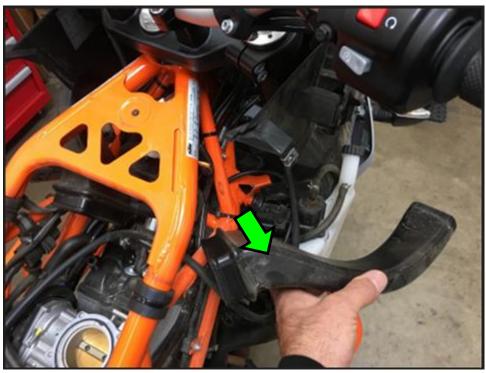


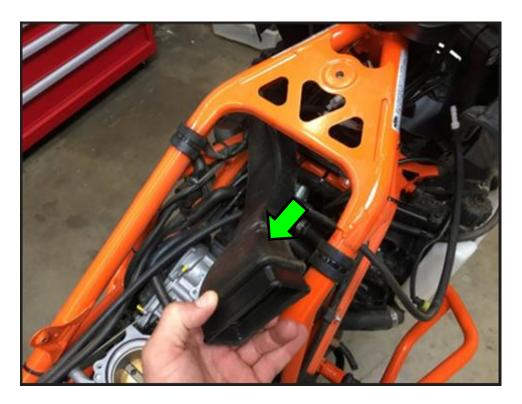
(PLIERS) Squeeze the spring clamp where the **SAS hose** attaches to the bottom of the stock air-box on the lower right and remove the hose from the air-box side.



You may now remove the stock air-box and the snorkel tubes. The snorkel tubes will not be reinstalled and can be shelved.







Using a soft edged pick tool, remove the stock <mark>o-rings</mark> from the base of the stock air-box. Compressed air will work too.



Install the stock o-rings into the base of the Rottweiler Intake. You may use some grease here if you like.

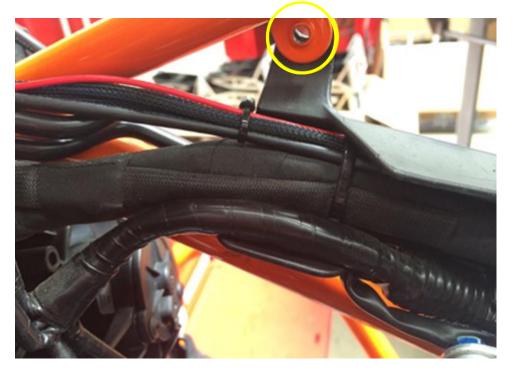


If you are also performing an SAS and Canister removal as part of your upgrade (Most common), it will be beneficial to complete this at this stage. <u>(See our SAS Stage Kits)</u>

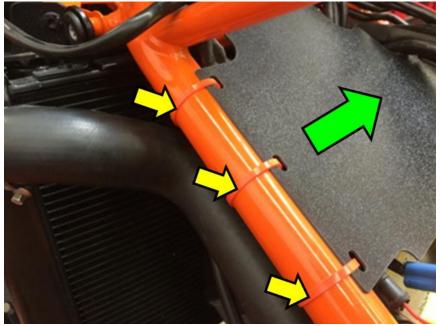
If you have decided to retain the SAS system you will need a small Pleated UNI filter with a 5/8 (16mm) fitting and insert it where the SAS system once pulled air from the bottom of the stock air-box. These can be found on our website under <u>'UNI Mini Filter'</u>.



(T30 TORX) Readjust the wiring harness as shown or out of the way so that the debris plate can fit flush to the frame. (1190 ADV pictured) Note: Removing the bolt that holds the plastic wiring harness guide can help with the installation of the debris plate and can be reinserted once the plate is in position.



Install the **debris shield** from the left-hand side through the frame. Sliding it in over the throttle bodies may help get the upper left-hand corner into place. You should then be able to drop it to contact the frame and zip tie it into place as shown below. This piece helps keep debris and dust from directly impacting the front of the airfilter.



Unscrew the locking knob and pull back on the locking hinge so that the thread on the knob passes through the slot.



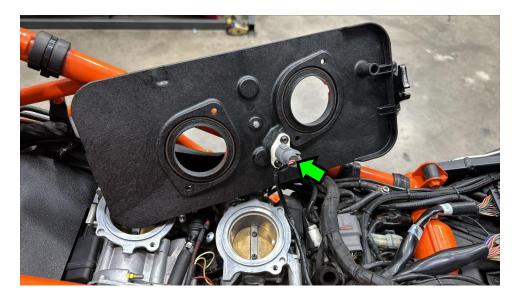
Pull slightly up and rearward on the pressure plate assembly and remove it from the assembly for now.



Nest the wiring behind the throttle body as low as you can compress it safely. This will allow the locking hinge to drop out of the way when servicing the filter later.



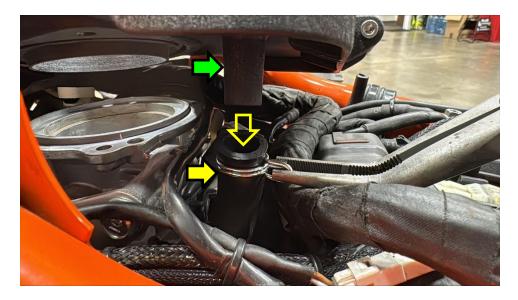
Plug in the air temperature sensor.



Wrap the air temperature sensor wire behind the throttle body as shown below. Make sure that it does not sit above the throttle body and get pinched during the next steps.



Lower the base plate on to the throttle body while guiding the crankcase breather hose on to the crankcase breather nipple. This will be mounted in the same fashion as it was removed stock. Another method is to remove the other side of the hose from the head of the rear cylinder and attach it to the base plate first, and then attach it to the head second. Whichever method you find is easier.



(3mm ALLEN) Using the supplied 5mm x 12 button head hardware, affix the base plate to the throttle body, <u>taking great care not to strip the aluminum threads</u>. The throttle body threads are fine, small, and soft so some lubricant on these threads and careful assembly is welcome here.

SUGGESTIOIN: Start all 4 bolts before you tighten them to ensure that they can all thread properly. You may open the holes in the plastic base plate with a fractional drill a very small amount if you feel that there is any misalignment of the screws, but generally this should not be necessary.



Following the oiling instructions that came with the kit, at the beginning and end of these instructions (<u>OR CLICK THIS LINK HERE</u>), thoroughly oil your SOLERA Twin Air filter as directed. If you are familiar with foam filters because you own single cylinder dirt bikes, this should be second nature to you. If this is your first time oiling a foam element filter, please adhere to the oiling instructions closely to ensure a clean and well-maintained induction charge.



Remove the locking knob from the pressure plate assembly.



Install the filter from one side to the other, poking the locking and guide pins through the filter holes and securing the filter tabs to the pressure plate. It does not matter which way the filter is oriented and this can be reversed in the middle of a ride for a refresh of the front of the filter.



LOCKING PIN (REAR)



FILTER HOOKS



**GUIDE PIN (FRONT)** 



A proper installation should look like this.



Reinstall the locking knob.

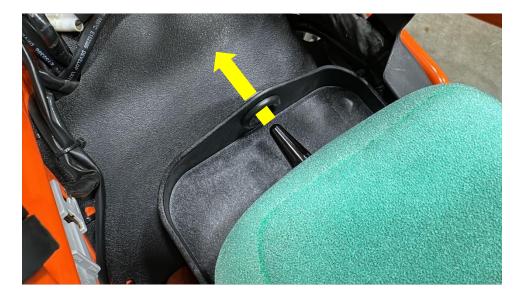


#### PRACTICE MAKES PERFECT!

Practice sliding in the filter assembly from back to front, paying close attention to keeping the lower black colored skirts of the filter below the side walls. If they ride up, you can easily tuck them in by wiping your fingers across them and tucking them into the side wall.



The goal is to get familiar with how the pin is located in the front so that once the fuel tank is on and it is difficult to see you will know what it is supposed to feel like when performed properly. NOTE: The design makes it physically difficult to attach the locking hinge if the guide pin is not located properly. See further down in the instructions for tips and tricks to know what to look for.





A properly seated filters should look like the image below with none of the back edge of the base plate showing. If the guide pin has found it's mark, the filter and pressure plate should snap into place and be pulled together by the rare earth magnet in the center of the pressure plate. There will be a very reassuring 'THUNK' sound and the filter should not go any further forward.



#### EXAMPLE OF A PROPERLY SEATED AIR-FILTER IF IT CANNOT TRAVEL ANY FURTHER FORWARD

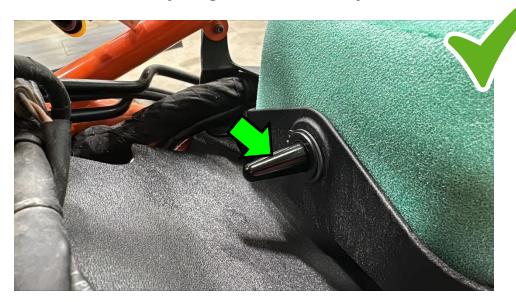


EXAMPLE OF AN IMPROPERLY INSTALLED AIR FILTER IF THE BACK EDGE OF THE BASE PLATE CAN BE SEEN AS SHOWN BELOW.

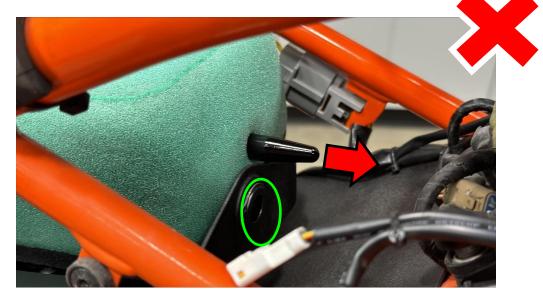


#### EXAMPLE OF A CORRECT GUIDE PIN INSTALLATION.

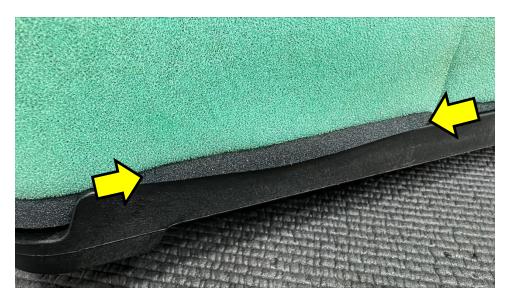
NOTE: For reassurance, you can look down from the top of your front forks and see the guide pin has properly **traveled through** the receiver. It is almost physically impossible to do incorrectly and also lock the hinge into place, but easy step may give you piece of mind that everything is done correctly.



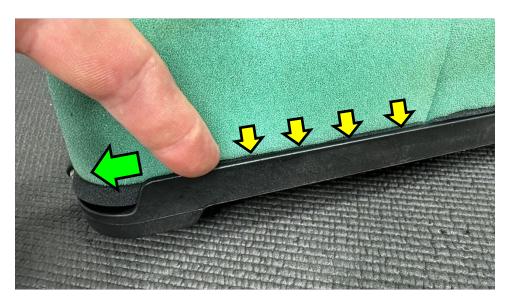
EXAMPLE OF AN INCORRECT GUIDE PIN INSTALLATION THAT WOULD LEAD TO THE REAR OF THE BASE PLATE SHOWING.



It is possible for the skirt on the side of the filter to install as shown below. This will still seal very well but can easily be tucked in with the brush of a finger or soft tool if you desire. This is the preferred method.



Simply **run your finger** or a soft tool down the side of the filter before the locking hinge has been attached. When installed on the bike your fingers can only reach the back half but most of the time the front is already tucked in because of the design and how the parts come together.



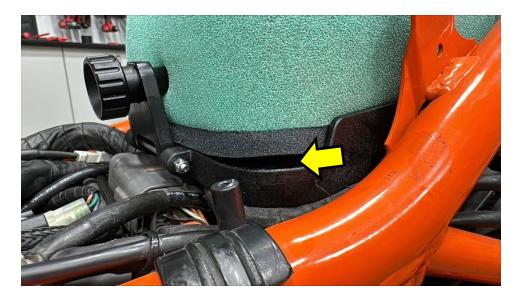
Push down on the filter or locking pin, rotate up and snap the locking hinge to the locking pin so that it nests within the recess in the hinge. These two parts should nest together and hold the pressure plate down on their own before the locking knob has been tightened.



Tighten the locking knob so that it also nests into the recess in the locking hinge.



You may also notice a small gap at the rear corners of the air-filter. This is completely normal and simply a biproduct of the shape of the filter as it is fabricated because there cannot be a 90° wall here like the rest of the design. The base of the filter is compressed further in and will be sealing perfectly.



Pulling up on this lip will show that the bulk of the skirt has been pinned to the base plate by the inner pressure plate. This is very similar to single cylinder bikes with Twin Air filters.



#### **MAINTENANCE & IMPORTANT NOTES**

NOTE: The images below show the fuel tank removed for pictorial purposes. You will still be able to perform these instructions with the fuel tank on.

When removing the filter for maintenance, a Debris Catch Tool has been included so that the filter can be removed without any debris falling into the throttle body. Follow the instructions below for best practice.

Unscrew the retention knob and lower the locking hinge.

Lift directly up on the filter enough so that the Debris Catch Tool can slide underneath the pressure plate.



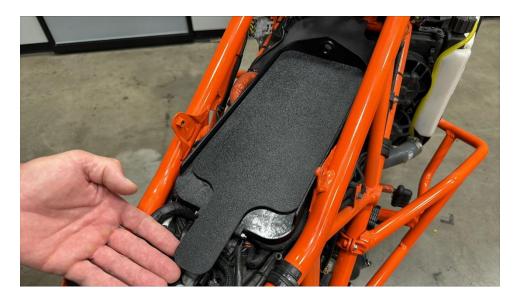
With the textured side up, slide the Debris Catch Tool underneath the filter and pressure plate and all the way to the back wall of the base plate.



Slide the filter out for maintenance while the throttle bodies are protected by the Debris Catch Tool.



The texture side facing up will help hold any possible debris that has fallen off the front of the filter when the tool is removed.



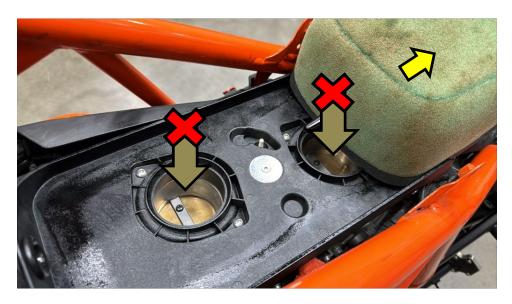
Carefully remove the tool and wipe away any debris for the next use.



NOTE: The Debris Catch Tool is designed with the option to be stowed underneath the seat in the position shown below so it can be used during longer trips where maintenance may be necessary before you return home. Simply ensure that the tool is not covering the seat supports or the seat lock.



During our testing period, removing the filter without the Debris Catch Tool has rarely shown to drop any debris into the throttle bodies. Nevertheless, using the tool is always good practice.



The throttle bodies rest in a closed position, so if any debris does fall in it can be blown out with air and should not enter the intake tract. It should become a habit to wipe out the base plate and ensure that no debris, dirt or bugs have fallen on to the throttle body butterflies or grooves in the base plate and do what is necessary to ensure they are clean when reinstalling the SOLERA air-filter.



NOTE: The pockets around the area where the velocity stacks nest are necessary for the molding process because thin areas next to thick areas of hot material will warp the part upon ejection from the molding tools while cooling. This is common across the profession of injection molding and is necessary to ensure that the part stays concentric to its design.



We thank you for being a great customer and if you have any questions, please feel free to give our customer service department a call! They are happy to help answer any questions you may have.

So long as you have properly oiled your air filter, congratulations on an excellent installation and you are now ready to reinstall the fuel tank and ride the motorcycle.

#### **CLEANING & OILING YOUR ROTTWEILER PERFORMANCE FILTER**

For the best overall results and longevity of your filter it is recommended that you use biodegradable filter oil systems and follow the instructions below. Always use the products in accordance with instructions. Improper use of cleaning chemicals or use of non-approved chemicals can damage filter materials.

Most biodegradable oiling kits are intended to be used in a two-part cleaning process where the cleaner breaks down the sticky dust retention oil on the filter, which is then washed off using warm water and washing up liquid/dish washing soap.

- 3. Follow the instructions for the brand of oil in which you have used to originally oil the filter. Mixing cleaning solutions between brands can lead to poor performance during the cleaning process.
- 4. The next step is to wash the filter out in warm soapy water for a final rinse. Fill a sink, washing bowl or bucket with a strong solution of water and liquid/dish washing soap, then submerge the filter in the solution. You should see any remaining oil and dirt residue rising out of the filter as it enters the water which may turn white as it mixes with the water/detergent mix. Repeat this process until you are satisfied that the filter is completely clean and then rinse with clean water only to ensure no dish washing detergent is left on the filter.

THIS STAGE OF THE PROCESS SHOULD TAKE NO MORE THAN 4 – 5 MINUTES, LEAVING THE FILTER SUBMERGED IN WATER FOR A PROLONGED PERIOD MAY CAUSE THE GLUES IN THE FILTER TO SOFTEN AND EVENTUALLY BREAK DOWN.

Now the filter is clean you will need to leave it in a warm, dry place until is fully dried out. DO NOT USE A HIGH-PRESSURE AIR-LINE OR HEAT GUN TO SPEED THE PROCESS UP.

Once the filter is dry, you may re-oil the filter element with your chosen brand of foam filter oil.

UNDER NO CIRCUMSTANCES USE COTTON GAUZE FILTER OIL, ENGINE OIL OR ANY OTHER OIL NOT SPECIFICALLY MANUFACTURED FOR FOAM AIR FILTERS.

#### **NOW GO RIDE!**