TUNING AND SETUP

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REAR SUSPENSION TUNING – XFR SNOWBIKE KIT

INFORMATION:

ABOUT THE REAR SUSPENSION: This is the main suspension point for the XFR snowbike kit. It is tunable to fit your liking. Tune for light or heavy riders or someone that carries a lot of gear. Tune for controllable deep snow riding or for a more playful feel. This tuning sheet will walk you through everything you needed to know about tuning the shocks on the rear suspension system. The suspension uses Fox Float Evol shocks. These shocks are a bit more complicated than coil over shocks. Their advantage is that you can tune them to be exactly what you want. It is recommended that you take the time to learn how they work so that you can have the best possible experience.

OTHER INFO: On the slide rails there are 2 sets of additional bolt holes. 1st There is a set of holes just behind the F.T.S that are intended for a set of added Idler Wheels. If you ride a lot of frozen snow it will be beneficial to add these to give your bike less of a sticky rolling resistance feel. 2nd Just ahead of the front suspension arm is a set of holes to mount ice scratchers to. To purchase these products contact your dealer or go to our web site at www.mtntopsnowbike.com under accessories.

Hi-Fax Type:	Polaris RMK (Ani Polaris RMK hi-fax from 2002 to current will fit the XFR slide rails. You will need to cut them to length. A wood chop saw works best for cutting h-fax)
Shock Type:	Fox Float-3 Evol IBP (internal by-pass, gas IFP, independent float body air spring, independent evol air chamber, internal negative spring for a smooth slow speed ride)
Air Adjustment Range:	Float Body, 50 psi - 150 psi / Evol Chamber, 0 psi - 300 psi
Factory Front Track Shock Setting (F.T.S.):	Float Body, 80 psi / EVOL Chamber, 150 psi
Factory Rear Track Shock Setting (R.T.S.):	Float Body, 80 psi / EVOL Chamber, 150 psi

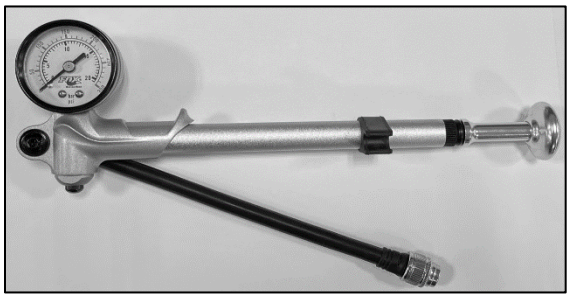
FLOAT AIR PUMP:

300 PSI FOX FLOAT PUMP: The Float Pump is included with every snow bike kit. It will work with the in-frame shock and the rear suspension shocks. It will also work with your bikes air forks if you have these.

IMPORTANT: To adjust the air pressure on any FOX FLOAT SHOCK you first need to unload the suspension by lifting up by the back bumper or laying the bike on its side to take the weight off the shock.

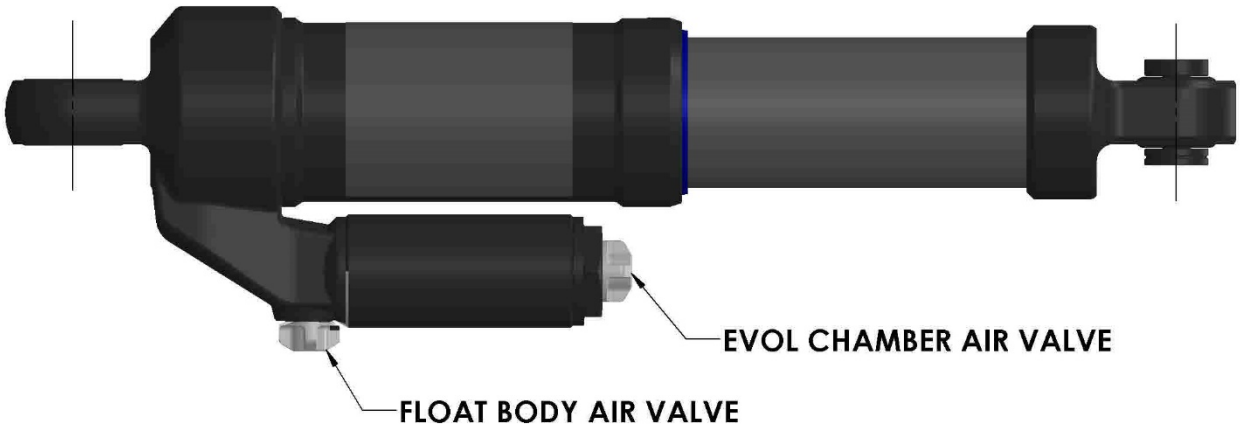
USING THE FLOAT PUMP: Remove the aluminum valve stem cap to expose the Air-Valve. There is one cap near the top of the shock for the main float body and a second cap at the bottom of the skinny round evol chamber tube. See image on page 3. Thread the pump on until you hear the line pressure up. When this happens, the shock will lose some psi pressure due to the air going into the line. To remove air pressure, lightly push the release button on the pump. You will hear air come out slowly and the needle on the gauge will lower, indicating the pressure in the shock. To add pressure, make full stroke pumps until you meet the desired psi. When threading the pump off you will hear the pressure release from the line. This will NOT affect your target psi setting. The pump closes the Air-Valve before the line pressure is released so that no pressure is lost inside the shock.

IMPORTANT: When threading the pump on and off, be careful to not let any snow get into the Air-Valve. This will allow water to get inside the float-body and could cause an air leak later on from moisture freezing inside the shock.



SHOCK TUNING:

UNDERSTAND THE DIFFERENCE BETWEEN THE FLOAT BODY AND EVOL CHAMBER: The Float Evol shock is like having dual rate springs on an offroad vehicle. The **Float Body** is the main spring that holds up the machine and all the weight sitting on it. By changing the air pressure in the Float Body, it will increase or decrease the stiffness of the suspension. The **Evol Chamber** is like the heavy weight bottoming spring. By changing the pressure in the Evol Chamber it will increase or decrease the bottoming resistance of the shock. IMPORTANT: To be effective, the **Evol Chamber** pressure must always be higher than the Float Body pressure to work properly.



GENERAL SUSPENSION TUNING INFO: The rule of thumb in suspension tuning is to utilize all of the travel without ever bottoming out. It is recommended to place a zip-tie tightly around the shock tube so that you can see how much travel is being used. As the shock strokes it will push the zip-tie down showing you the travel used after you stop. To do this test slide the zip-tie all the way up. Ride for 5 to 10 minutes and then check the travel. If you have pushed the zip tie all the way to the bottom, then you have come close to bottoming the shock and need a little more air pressure. If you are pushing the zip-tie 1 ¼" inch from the bottom, then you are not using all of the available travel and need a little less air pressure.

RECOMMENDED SETTINGS: Set air pressures to the recommended setting below for your weight. Then fine tune from there if you like. NOTE: The F.T.S. is carrying the load of the bike and rider. It is recommended to keep the pressure of this shock at the recommended setting for your weight and do most of your tuning with the R.T.S. This will give you the most effective feel difference when tuning for rider style.

F.T.S. FLOAT BODY TUNING: Set the **Float Body** pressure to your liking. More pressure will carry a bigger load or can be used to take additional weight off the front end. Less pressure will soften the shock making it smoother for a lighter ride and can be used to add front end weight for more precise steering. NOTE: When tuning the **Float Body**, adjust in 10 psi increments to give an effective change.

R.T.S FLOAT BODY TUNING: Set the **Float Body** pressure to your liking. More pressure will carry a bigger load and will give you less ski lift (more control). It will also increase the traction in deep snow. Less pressure will give you more ski lift with less throttle input giving the bike a more playful feel. NOTE: When tuning the **Float Body** adjust in 10 psi increments to give an affective change.

EVOL CHAMBER TUNING: Set the **Evol Chamber** pressure based on the shock travel being used. If you have placed a zip-tie on the shocks to check the travel being used, you can tune this in more easily. If you are pushing the zip-tie all the way to the bottom, then increase the Evol pressure. If you are pushing the zip-tie down 1 ¼" from the bottom, then decrease the Evol pressure. NOTE: When tuning the **Evol Chamber**, adjust in 50 psi increments to give an effective change.

RECOMMENDED SHOCK PRESSURE SETTINGS:

RIDER WEIGHT w/out gear	***F.T.S.*** Float Body	***F.T.S.*** Evol Chamber	***R.T.S.*** Float Body	***R.T.S.*** Evol Chamber
100 to 120 lbs.	50 psi	100 psi	50 psi	100 psi
120 to 140 lbs.	60 psi	100 psi	60 psi	100 psi
140 to 160 lbs.	70 psi	100 psi	60 psi	100 psi
160 to 180 lbs.	70 psi	100 psi	70 psi	100 psi
180 to 200 lbs.	80 psi	100 psi	80 psi	100 psi
200 to 220 lbs.	80 psi	150 psi	80 psi	150 psi
220 to 240 lbs.	80 psi	200 psi	80 psi	200 psi
240 to 260 lbs.	90 psi	200 psi	90 psi	150 psi
270 + lbs.	100 psi	200 psi	100 psi	200 psi
Riding Double	110 psi	200 psi	120 psi	200 psi