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# SI, DUO, TRI-TEK KIT INSTRUCTIONS



A SOLID IMPROVEMENT IN AIRSHOCK PERFORMANCE FOR YOUR SKIS!

**DUO-TEK KIT -** Finally an Airshock that has air chambers that are properly sized to meet the defined load range of ski suspensions, featuring two Assault-SK ski shocks.

To date, snowmobile Airshocks have metal air chambers that are so small they're unable to deliver the smooth and gradual force curve needed to match the wide yet defined range of loadings a ski suspension confronts. Because those Airshock chambers are so small, their force curve ramp up is steep. There lies the root cause of the common experience of a rider being able to set air-pressure to work reasonably well in smaller bumps but then the Airshocks don't match up well with the bigger ones. The results can be a fatiguing riding experience on anything resembling the average choppy trail. As proof of this, just check out how many secondary aftermarket bolt on "air chamber kits" are being sold to increase overall air chamber volume hoping to improve ride quality.

Through the use of our large and properly sized Airsprings we are able to provide full stroke smoothness, while at the same time delivers severe bump bottoming prevention. These units deliver the greatest range of isolation or widest sweet spot available of any Airshock, which is exactly what a rider needs to enjoy the ever changing conditions of trail systems today.

As for matching your Assault Airshocks to cornering needs, the large surface area of our pistons require just small shifts in air pressure when tailoring chassis roll-stiffness to your personal riding style. To date these kits have been checked out for all Polaris IQ and Fusion models, Yamaha Nytro, Apex, Attack, RX-1 and some Venture models as well as all Ski-doo REV standard and XP models. Kits for Arctic and others will be added through the season so call in or check our website for the latest on additional models.

**TRI-TEK KIT-**For the REV, Nytro and IQ Polaris M-10 families. Significant trail riding enhancements are as easy as the removal and replacement of six bolts. This is a kit that addresses more than just what the skis are doing. Featuring matched air shock calibrations between the skis and front arm that will improve your sled's ride and handling. In particular while grinding through the annoying trail chop that tends to hammer away at one's forearms and upper body.

In the front of the rear suspension our Assault Airshock prevents the all too frequent bottoming of the rear suspension's front arm. This problem is far too prevalent on many of today's sleds in particular the significantly rider forward sleds such as the REV, Nytros and IQs. On these sleds the weight is shifted forward and the front arm has become the most heavily challenged portion of the suspension system.

Through the use of our large and properly sized air chambers we are able to provide a full stroke of smoothness while at the same time deliver severe bump bottoming prevention. Our units deliver the wide range of isolation a rider needs to enjoy the ever changing condition found on trail systems today.

On this kit we have obtained apparent and appreciable improvements through the front half of the sled and by making the front half work better the overall sled feels better. When riding a sled with a TRI-TEK kit, it almost feels as if both rear shocks were changed as the whole sled feels better. To date these kits have been checked out for every year Ski-doo REV and '08 and newer Yamaha Nytro model as well as IQ Polaris M-10 equipped models. Additional models will be added through the season so call for the latest additions.

IMPORTANT: IT IS NOT RECOMMENDED USE HIGH PRESSURE SPRAY OR HIGH PRESSURE CLEANING EQUIPMENT ON THE AIRSPRINGS OR THE ASSAULT AIRSHOCKS-DAMAGE MAY OCCUR.

#### TEK KIT INSTALLATION INSTRUCTIONS

**TECHLINE 218-744-2107** 

\*\* <u>IMPORTANT</u>: Read through the *BRAND NOTES* page before starting to install the ski shocks. There are different steps per sled model.

<u>WARNING</u>: When installing your air shocks, it is best to pressurize each airspring to 20psi (minimum) before installing. If the airspring becomes deflated anytime after installation, <u>DO NOT</u> lift the snowmobile's chassis by hand or mechanically, this may cause the airspring's piston or end cap to become unseated. Simply add air pressure to the deflated airspring(s) to raise the chassis, and then set each airspring to your desired pressure. Never operate any airspring below 20 psi.

- 1. **SKI SHOCKS.** Safely and securely lift and support the front of the sled off of the floor.
- 2. Remove the stock ski shocks and mounting hardware. The stock upper and lower nuts and bolts will be used with the TEK-KIT.
- 3. The TEK-KIT includes one LH and one RH ski shock. Sitting on the sled the left hand shocks will have the Schrader valve facing out the side of the sled and the flush hex plug will be facing the rear of sled. Same for the right hand shock.
- 4. Upper and lower shock bushings are included in the kit. The bushings have been properly placed in the shocks when shipped, please make note and make sure they are installed as they were shipped to you. The stock nuts and bolts will be used with the TEK-KIT.
- 5. The shocks are shipped with 40psi in each shock. This is a good starting point but you may need to adjust air pressure for your riding style and needs. Install the shocks on the LH and RH side of sled with bushings properly installed and torque hardware to OEM specifications. For ease of installation you may want to let the air out of the shocks. Caution: When air is released from airspring be careful not to double roll the airspring inside of itself. Install the upper shock mount first. If you need to compress the shock to push bolt through lower mount grab the shock body and push upward. Do not push or pull on the AIRSPRING portion of shock. When installed set starting air pressure at 40psi.
- 6. **REAR / MID SHOCK.** With front of sled sitting on the floor safely and securely raise the rear or sled off of the floor.
- 7. Remove the rear / mid shock. The nuts and bolts will be used with the TEK-KIT shocks.
- 8. Upper and lower shock bushings are included in the kit. The bushings have been properly placed in the shocks when shipped, please make note and make sure they are installed as they were shipped to you.

- 9. Install the mid shock with Airspring up and the Nitrogen filler port downward facing back and the bushings properly installed. REV-XP will have a machined area marked with a red dot; this will also be downward facing back. Torque the stock nuts and bolts to the OEM specifications. The shock will install easier with the air let out of the shock. When air is released from airspring be careful not to double roll the airspring inside of itself. Install the upper shock mount first. If you need to compress the shock to push bolt through lower mount grab the shock body and push upward. Do not push or pull on the AIRSPRING portion of shock. When installed set starting air pressure at ~ 40psi.
- 10. The shock is shipped with ~ **40psi**. This is a good starting point but you may need to adjust air pressure for your riding style and needs.
- 11. When trail ridden you must follow the guidelines for proper air pressures for usage to ensure rider safety. Misuse of the system or poor set-up by the rider may result in injury to rider and damage to sled. Proper set-up helps with safe riding.
- 12. IMPORTANT: IT IS NOT RECOMMENDED TO USE HIGH PRESSURE SPRAY OR HIGH PRESSURE CLEANING EQUIPMENT ON THE AIRSPRINGS OR THE ASSAULT AIRSHOCKS-DAMAGE MAY OCCUR.

#### **BRAND NOTES PAGES:**

#### **SKI-DOO ZX PLATFORM:**

-The lower bolt on the front upper shock mounts will have to be turned around for clearance. Remove the exhaust pipe; muffler can stay in the sled. On both right hand and left hand sides of sled remove the lower nut and bolt on the upper shock mount bracket on the front bulkhead. Install the bolt with the bolt head on the outside and the nut on the inside of motor compartment. Torque bolts to proper OEM specifications. Install exhaust pipe. Proceed to install ASSAULT-SKI SHOCKS. See Photos below.

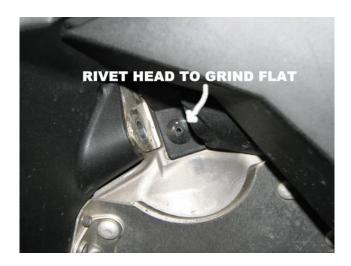




#### **SKI-DOO REV-XP:**

The Ski-Doo Rev-XP sleds have a rivet near the upper shock mount on both LH and RH side of the sled. You will need to grind the domed head of the rivet flat for clearance on the upper shock eye.

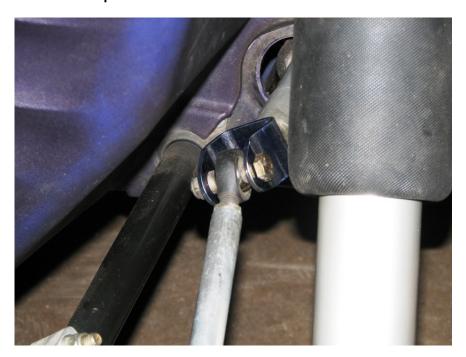
## See Photos:





## SKI-DOO CK-3 SKI SHOCKS

The Ski-Doo CK-3 sleds require the replacement of the tie rod steering-link on the inboard side of the tie rod. Remove the stock mount and install the new mount using the bolts provided. Use Red LOCTITE on the new bolts provided.





## YAMAHA: NYTRO 121" and 136" ONLY

The limiter strap on the front arm will move from the center of the arm, to the left hand side of the front arm.

Install the upper and lower bushings as they are in the shocks when delivered.

#### See Photos:



# YAMAHA NYTRO: MID-SHOCK 144"





#### **POLARIS: EDGE / XC / XCR**

Two rivets on both the left hand side and right hand side of the upper belly pan need to be removed. Replace with two new rivets with the rivet head on the outside facing the shock. Failure to do this minor modification will result in shock damage. See Photo.



## **ARCTIC CAT: 2010 SNO-PRO 500/600**











## YAMAHA NYTRO ASSAULT AIRSHOCKS



## **REV SERIES ASSAULT AIRSHOCKS**

