ANNEX
SUSPENSION GROUP

PERFORMANCE SUSPENSION

OWNER'S MANUAL

V.0725

PRODUCT ASSEMBLY SHEET

For warranty service, please keep this Product Assembly Sheet and your receipt to validate proof of purchase.

Customer Name: Date:
Assembly Number:

Product Information
Part Number:
Serial Number:

<table>
<tr><td rowspan="2">Spring Rate + Length (F/R)</td><td colspan="3">F: kg / mm</td><td rowspan="2">Preload</td><td rowspan="2">mm</td></tr>
<tr><td colspan="3">R: kg / mm</td></tr>
<tr><td rowspan="2">Swift Spring Upgrade (ID:60mm)</td><td>F: Y/ N</td><td colspan="2">F: kg / mm</td></tr>
<tr><td>R: Y/ N</td><td colspan="2">R: kg / mm</td></tr>
<tr><td colspan="6">Note:</td></tr>
</table>

Assembled by: Final QC by:

NOTE Coilovers or shocks must be installed and in use within 6 months.
Delayed installation can lead to seal failure and compromised performance.

ANNEX SUSPENSION GROUP

ABOUT ANNEX SUSPENSION GROUP™

Annex is a team of deeply passionate engineers, road racers, and enthusiasts with a shared goal: maximizing the driving experience of the car you love, both on and off the track. Annex believes that performance and comfort can go hand in hand. Going fast simply isn't enough; comfort is also required to truly enjoy your vehicle. To ensure that our suspension meets a high standard for both comfort and performance we develop each and every chassis application in house using a blend of modern tech like 3D scanning and dynamic modeling as well as road testing and data logging. Annex Suspension Group™ products are designed to inspire you to keep what you love for the many miles ahead.

PLEASE READ BEFORE PROCEEDING

Annex Suspension Group™ cannot be held responsible for any damage to the product, vehicle, or injury to any persons as a result of the use of this product. The product warranty will only remain in effect if the installation instructions and maintenance guidelines are adhered to. Please read the disclaimer at the end of this document.

That being said, we are here to help. Please contact Annex Suspension Group™ technical support if any part of the installation procedure is unclear.

NOTE The suspension is an important part of the vehicle and will affect the vehicle's stability. Use proper care when test driving and test fitting the product.

Please make sure that you fully understand all the instructions and the user's guide before using or installing your suspension.

This product must be installed by a certified mechanic. Damage as a result of improper installation will not be covered by the product warranty.

If the suspension makes any unusual noises or leaks any fluids during operation, please return to your installer or authorized dealer for inspection.

NOTE The operating manual is considered a part of the product. If the product is ever sold, the user guide should be given to the new owner.

Each product has been developed solely for the vehicle in which it is intended for and should only be installed on that vehicle model in the original condition as delivered from the vehicle manufacturer.

⚠ STOP ⚠

CLUBSPEC PRO™ PLEASE READ BEFORE PROCEEDING

Do NOT follow FastRoad Pro™ instructions when installing ClubSpec Pro™ coilovers. For ClubSpec Pro™ installation, please scan the QR code below and follow the ClubSpec Pro™ Installation Tutorial.

Please contact Annex Suspesion Group™ support if you have any questions.

CLUBSPEC PRO™ INSTALLATION TUTORIAL:

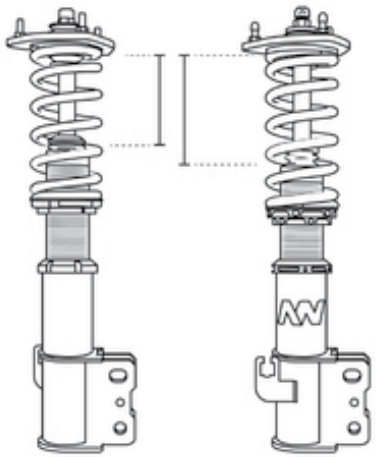
Scan QR Code

Or search 'Annex CSP install' on www.youtube.com

CONTENTS

FASTROAD PRO™ BACKGROUND

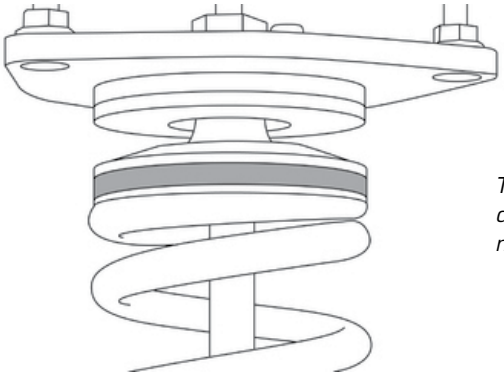
Your **FASTROAD PRO™** system is optimized for spirited driving in real world conditions. Each application is carefully designed and tuned to provide a high level of driving performance with improved ride quality and more usable suspension travel compared to other coilover systems. The dampers have 24 levels of adjustment that allow for fine tuning and control on smooth high grip surfaces, yet allow for a very supple ride for real world roads conditions.



FASTROAD PRO™ was designed to have more usable stroke than typical coilovers resulting in superior grip and comfort.

The shock absorber piston valving is the heart of every Annex Suspension Group™ coilover system. Our inhouse development means we optimize our valving for the specific chassis and coilover system. We use both linear or digressive valving depending on the needs of the application. FASTROAD PRO™ dampers are valved and dyno tested inhouse before coilovers are assembled and shipped. This ensures every kit meets our high standards for performance and ride quality.

NVH (Noise, Vibration, Harshness) can cause discomfort and premature wear of vehicle components. NVH is increased when installing performance suspension, as stiffer springs and bushing materials translate more NVH into the chassis. Often this means excessive noise and discomfort. This can also lead to accelerated wear and tear on other chassis or suspension components. Our suspension features NVH reducer bushings which greatly reduce NVH over other pillow ball equipped coilovers that do not employ NVH reducer bushings. We engineered our NVH reducers so that they work without adversely affecting handling response from driver inputs. **FASTROAD PRO™** coilovers retain a nearly factory level of NVH on most applications.



The NVH reducer was created to reduce road noise and discomfort while maintaining steering precision.

On applications using a front strut design, high-quality Koyo® sealed bearings are incorporated into the suspension top hat/camber plates to increase steering feedback. These bearings also reduce steering effort and suspension noise, as they allow the spring to rotate freely during steering rotation.

It is important to note that the **FASTROAD PRO™** system is optimized for a moderate drop (40mm +/- 10mm) They are not intended for extreme lowering. If you are unable to achieve the ride height you are aiming for please contact our support

NOTICE Applications retaining OEM strut hats may not include NVH reducers as OEM top hats are engineered with NVH properties.

CLUBSPEC PRO™ BACKGROUND

ClubSpec Pro™ is targeted toward club racers and serious track enthusiasts. Taking our driver first approach as FastRoad Pro™, we developed ClubSpec Pro™ to meet the higher performance demands of competitive club racers who still wish to retain some drivability while driving off track. Care is taken to ensure ClubSpec Pro™ coilovers remain streetable while still equipped with spring rates and valving designed around modern high grip track focused DOT legal tires. While it may not be your significant other's favorite car to passenger in, we still want the drive to and from track to be as enjoyable as possible.

ClubSpec Pro™ coilovers utilize zero rate helper springs. These springs allow for additional droop travel when using stiffer spring rates. Maximizing tire contact with the road surface. Special care should be taken when setting up suspension with Helper springs. Failure to follow the correct installation process can lead to major issues. Please reach out to our support if you have any questions.

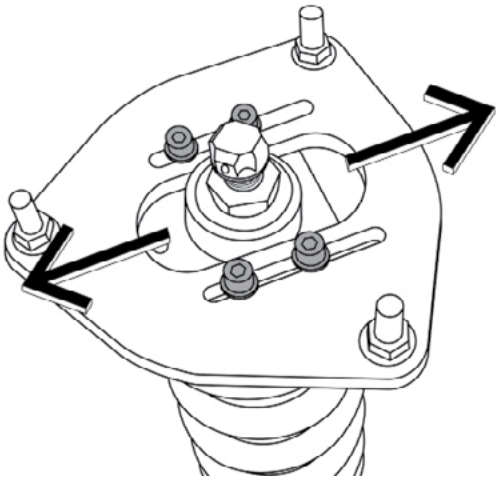
CLUBSPEC PRO™ INSTALLATION TUTORIAL:

Scan QR Code

Or search 'Annex CSP install' on www.youtube.com

CAMBER ADJUSTMENT AND TORQUE SPECS

If your suspension system includes camber plates, camber adjustments can be made by moving the strut top hat's position either inward or outward on the camber plate. To adjust camber, ensure the vehicle is secured from rolling (i.e. wheels chocked), and that the vehicle's is off the ground and secured. Loosen the four camber plate allen bolts just enough so that the top mount can be slid inwards or outwards to reach the desired camber setting.



Camber is adjusted by sliding strut laterally relative to camber plate.

TIGHTENING TORQUE TABLE	
FASTENER	TORQUE SPEC (FT-LB/NM)
Camber Plate Bolts	10 / 13.5
Top Nut 21mm or 17mm w/ M12 Shaft	30 / 40.5
Top Nut 21mm w/ M14 Shaft	50 / 67.8
Stud Nuts (M8 or M10)	**(M8)** 13 / 17.5 **(M10)** 18 / 24.5

** Optional, blue loctite may be applied for additional security*

Do not use any tools to grab the chrome shock shaft when tightening the top nut. Use a torque limiting adapter if using an impact gun to tighten the top nuts or the shock may be permanently damaged.

Only loosen the camber plate allen bolts enough to allow the strut to slide inwards or outwards. The strut assembly may fall out if the bolts are loosened too much, resulting in possible injury.

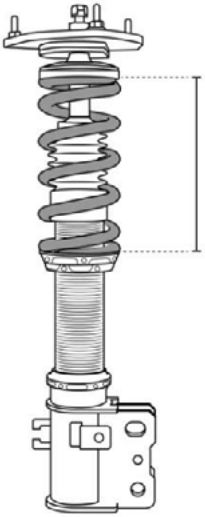
Be sure to follow the torque specs in this manual

Camber plate adjustment marks are for reference only. Please take vehicle to a qualified alignment center to ensure the desired alignment settings are achieved.

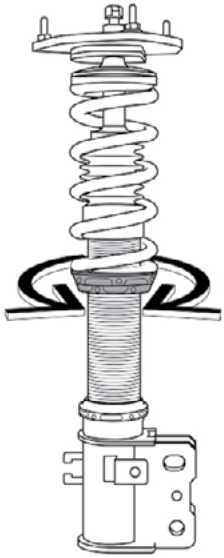
NOTICE For ClubSpec Pro™ installation instructions, please see page 4 in this user guide.

SPRING PRE-LOAD AND LOCK RINGS

The Annex Suspension system has adjustable-height spring perches. When the height of these perches is changed, the amount of spring pre-load will also change. Pre-load is defined as the amount the spring is compressed when compared to its free length. Unless otherwise stated, all of the Annex Suspension Group™ products come with the springs already pre-loaded to the appropriate specification.



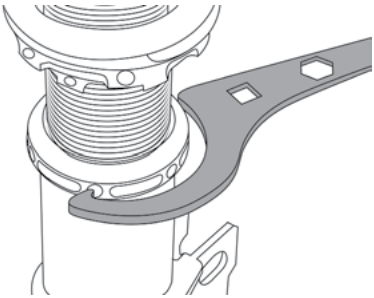
Pre-load is the amount the spring is compressed versus its free length – the spring's natural length when the spring perches are no longer compressing the spring.



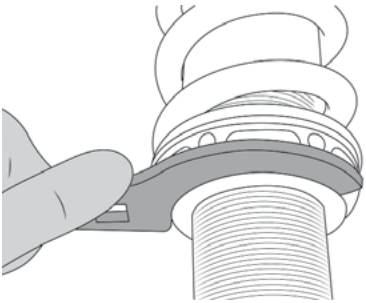
Spring seats are rotated up and down to change pre-load. Seats must be locked tight when finished.

Proper spring pre-load is important for safety, comfort, and performance. **Do not use the spring perches to adjust vehicle height;** All Fast Road Pro systems have an independent height-adjustment which is covered in Height Adjustment. Some applications include a proprietary NVH reducer underneath the top hat – please note systems with this isolator have a different pre-load spec.

Use the supplied spanner wrenches to adjust spring pre-load as needed. Tighten the lock rings to the specified torque value when finished.
It is important to note that the spanner tips must be inserted into the guide circles for proper grip. Once the guide circles are engaged, the spanner will be locked in place, reducing the risk of scrapes and bruises.



It is important to insert the end of the spanner into the locating hole of the lock rings for a sure grip.



Rotate the lock rings with the included spanner to raise, lower, tighten, or loosen.

NOTICE For ClubSpec Pro™ installation instructions, please see page 4 in this user guide.

For vehicles with divorced spring perches, spring pre-load is set by adjusting shock absorber length so that the spring is captured.

1. Extend the shock length until you can only just see threads through the sight hole or the maximum shock height is achieved *(see Height Adjustment)*. Adjust the divorced spring perch until the desired ride-height is achieved.
2. Set the shock length so that the rear spring is pre-loaded as stated in the table below.
3. Tighten the lock rings to 25ft-lb/34Nm by using a ½" drive torque wrench.

NOTE Some divorced spring perches will be too large for the included spanner wrenches and would need to be tightened with a mallet and a flat screw driver.

Never adjust the spring pre-load with the vehicle on the ground to avoid damaging the shock. Either lift the car or set the pre-load with the suspension on a work bench.

Always ensure that the springs are pre-loaded before operating the car and that there is no free play in the springs. This will ensure that the spring is safely captured and seated on the perch. Always lock the adjustment collars fully before operating.

To tighten the lock rings on the shock body, you can lay the suspension flat onto a soft material or foam pad and press down towards the ground to tighten them against each other.

The lock rings' sharp edges have been smoothed to reduce the chance of injury to the installer but please take care when working with the lock rings and wear proper protection.

SPRING SEAT TYPE	PRELOAD SPEC (MM / INCHES)
With NVH Reducer	6 / 0.23
W/o NVH Reducer	6 / 0.23
Divorced Spring Perch	6 - 10 / 0.23 - 0.4

MOUNTING AND HEIGHT ADJUSTMENT

Never adjust the vehicle ride height with the vehicle loaded or on the ground as damage to the shock absorber or personal injury may result. Always have the vehicle supported on a lift or with jack stands.

When raising or lowering the vehicle's ride height, always check that suspension arms, tires, and other parts have adequate clearance. Carefully check that there is no interference before operating the vehicle. Lower the car to the ground slowly to check for any binding or interference.

For your safety, this suspension must be installed by a qualified technician. Improper installation could result in injury or death.

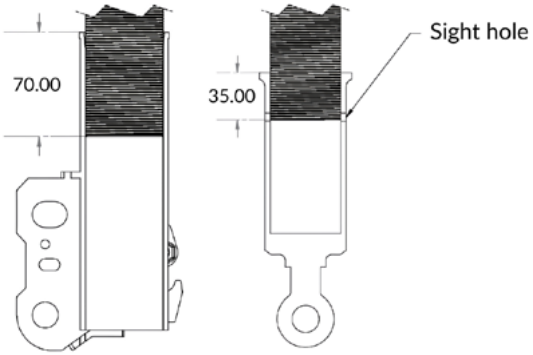
There must always be at least 70mm of shock body threaded into the lower bracket for McPherson strut configurations, and at least 35mm of shock body threaded in for double A-arm or multi-link suspension configurations.

Unless stated otherwise by Annex Suspension Group™, the appropriate vehicle service manual should be followed when installing this suspension.

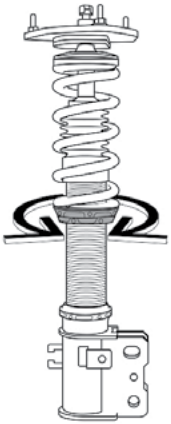
NOTICE For ClubSpec Pro™ installation instructions, please see page 4 in this user guide.

It is important to note that the **FASTROAD PRO™** system is optimized for a moderate drop (40mm +/- 10mm) and is **not** designed or intended for extreme lowering.

Please pay attention to the maximum extension length of the bracket by using the sight hole on the bottom bracket. Never operate the vehicle with less than 70mm of thread engagement between the shock body and the mounting bracket for struts, or 35mm of engagement for non-struts. Some brackets have a sight hole to help verify if minimum thread engagement is achieved.



Shock body is threaded into lower bracket until thread is visible. If there is no sight hole, see the specifications in the warning section above.

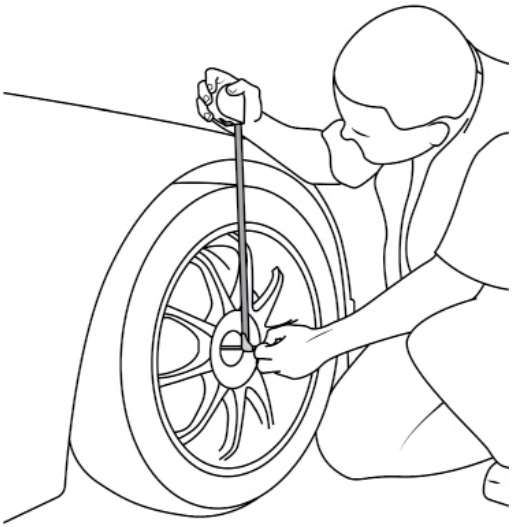


Loosen bottom lock nut and rotate shock body to adjust shock length.

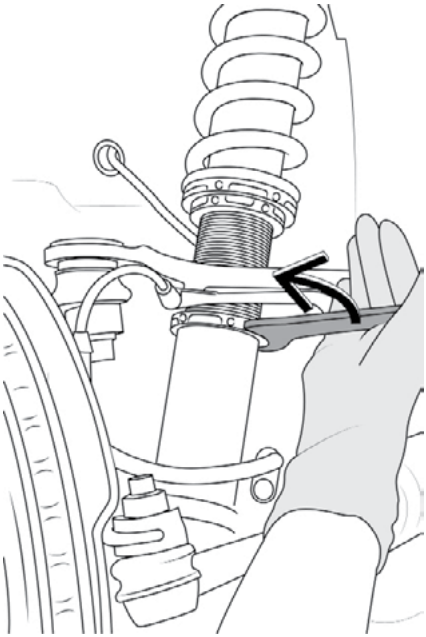
Proper ride height settings are a critical part of optimizing your vehicle's handling. To measure ride height, it is recommended to use the wheel gap method.

1. Place the vehicle on the ground and measure from the wheel hub center to the highest point on the fender arch/wheel opening. You may find it is helpful to use a pen or straight object at the end of your measuring tape so that the center of the wheel is more easily found.
2. Write this measurement down and repeat for all four corners of the vehicle. This measurement is the "wheel gap".
3. Raise and support the vehicle so that the wheels are off of the ground. Be sure to check that it is stable so the vehicle cannot fall down.

4. Adjust the shock length to the desired amount on each corner using by rotating the shock body. Hand tighten the lock nut and carefully lower the vehicle to ensure that that there is adequate clearance of the tires and suspension components.
5. Roll the car forward and back to help the springs settle.
6. Measure the wheel gap on all four corners again and record them. If the target wheel gap is not achieved, adjust shock length again as needed. As a very general rule of thumb (this varies due to suspension geometry), adjust the shock length by 80% of the desired wheel gap change. For example, to raise the car 10mm the shock would be lengthened 8mm. Repeat this process until the desired ride height is achieved.
7. Be sure to lock the bottom bracket lock ring and do a final nut and bolt check of the vehicle suspension before your test drive. The bottom lock ring should be torqued to **90ftlbs / 122Nm for MacPherson strut applications or 65ftlbs / 88Nm for all others.** If you cannot safely use a torque wrench on the spanner for the lower lock ring, you may use a spanner and give several firm taps with a rubber or wooden mallet. Be sure this ring is adequately tightened!
8. Torque the wheels to manufacture spec and road test.



Use a tape measurer and a straight object to measure the wheel gap.



Be sure to tighten the lower lock ring before taking the vehicle for a test drive. It is crucial that the lock ring is secured either by torquing it to the specification listed in Section 7 of the previous page using a torque wrench, or by firmly tapping the spanner with a mallet until the lock ring is fully tightened.

Be sure that the lock rings and the bottom bracket lock ring are properly tightened before every drive as possible loss of control of the vehicle may result.

It is common for the springs to settle another 5-10mm after the car has been driven for a few miles. It is recommended to set the initial ride height to 5-10mm higher than the desired final ride height.

Always clean off the threads when adjusting the ride height as dirt or grit can damage the threads. See Maintenance section for more information.

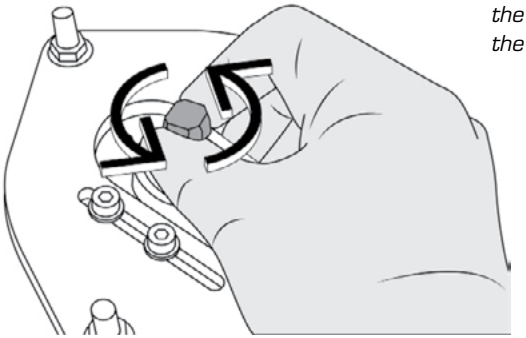
DAMPING ADJUSTER

Annex Suspension Systems feature adjustable dampening. The number of "clicks" is counted from full tight (fully clockwise) to full soft (fully counter clockwise). -0 is full tight, -24 clicks from full tight means the shock is at full soft.

Do not force the adjuster pass the limit stops as the shock may be damaged.

Always check the position of the damper adjuster after installing the suspension.

Other than your hands or a small 3D printed tool for adjusting inverted setups, never grab or twist the damper adjuster with anything else. The shock may be permanently damaged if the adjuster is bent or twisted by a tool. Take care during installation to avoid bumping or hitting the adjuster mechanism.



Adjust the shock dampening with the adjuster knob. Do not force the adjuster past the limit stops.

SETTING THE DAMPING ADJUSTERS

When adjusting the dampers, do not change damper adjustments more than 4 positions at a time in between road tests.

Ensure damping adjustment are even for both the driver and passenger sides for safe handling.

Some applications require the adjustment knob to be installed after the dampers are fitted to the vehicle. Use the included hex key to attach the knob to the adjuster mechanism.

Baseline damper position will be -12 from full stiff for both front and rear. Set initial street settings on a safe road surface that offers various road surface conditions. Adjusting all four dampers the same, click 3 positions per initial adjustment in the desired direction. Continue to adjust and test until you over soften or over stiffen, then adjust 2 clicks in the opposite direction.

Once initial settings are found, follow the table to address any handling issues. Again making 3 click adjustment. You can alternate between front and rear adjustments per test, but we advise only adjusting one axle at a time.

HANDLING ISSUE	FRONT	REAR
Car understeers or "pushes"	Softer	Stiffer
Car oversteers or "handles loose"	Stiffer	Softer
Car feels nervous or skips over bumps	Softer	Softer
Car feels sloppy, slow to take a set on cornering line	Stiffer	Stiffer

NOTE: Every car will have a slightly different effective adjustment range. The last 3 adjustment points may have reduced effect over the damper valving. Most effective adjustment range will fall between -21 and -3 from full stiff.

MAINTENANCE

Proper cleaning and care will extend the service life of your suspension.

1. Every 10-20,000 miles / 16-24,000 km a cleaning service should be performed. If you operate the vehicle in areas with harsh condition this service may need to be performed more frequently.
   a. Clean the exterior of the suspension with a mild detergent and warm or cold water and dry with a clean towel. Compressed air can be used to dry hard to reach areas. Do not use strong solvents or chemicals as the surface finish and seals may be damaged.
   b. Lift the shock absorber dust boot and remove any accumulated dirt around the shaft seal. Preventing build up here will extend the life of your oil and shaft seals!
   c. Lightly oil the shock body threads with a light oil (5w shock oil, Air Filter Oil, or similar) to prevent seizing and galling.
   d. Check the shocks for any visible external damage.
   e. Check the rubber bushings for wear.
   f. Check the shock absorber mounting brackets and hardware for any looseness or damage.

Never attempt to open or service the shock absorber. The shock contains high pressure nitrogen and could explode if disassembled incorrectly. Any rebuilding or servicing should be performed by Annex Suspension Group™ or an authorized service center.

TROUBLESHOOTING

Your Annex Suspension Group system was designed to be silent when in operation. If you have any unusual noises, perform these steps to rectify the problem:

1. Vehicle emits clunking noises when passing over small bumps on road.
   a. Suspension Top Nut not properly tightened. Tighten to specified torque value with an impact wrench and torque limiting adapter.
   b. Suspension Lock Ring not properly tightened. Tighten to specified torque value with a torque wrench.
   c. Pre-load not properly set causing spring movement. Set spring pre-load to specified value.
   d. Sway bar end links not tightened. Check to ensure sway bar end links are tightened in accordance with the applicable vehicle service guide.
2. Vehicle emits squeaking noises from suspension when moving.
   a. Vehicle sway bar and suspension bushings can squeak after the vehicle is lowered. Inspect the bushings and lubricate or replace if necessary.
3. Vehicle emits clunking noise when steering wheel is turned.
   a. Vehicle sway bar end link lengths may need to be adjusted. Check if the sway bar or end links are binding. If necessary, replace or change with adjustable length end links or change the vehicle ride height so that the binding no longer occurs.

ADDITIONAL INFO

All Annex Suspension Group™ products are for motorsports use only and can never be used on vehicles that will be driven on a public road or highway. Motorsports can be dangerous and result in injury or death.

Annex Suspension Group (the "Seller"), shall not be responsible for the Product's proper installation, use and service. Rather, the Buyer (or, if applicable, the installing dealer who installs the Product) shall be solely responsible for the installation of the Product and any damage that may be done to vehicle components as a result of modifications made by the Buyer (or the dealer, as the case may be).

The Buyer is responsible to fully understand the capability and limitations of his/her vehicle according to manufacturer specifications, warnings and instructions and agrees to hold the Seller harmless from any damage resulting from failure to adhere to such specifications, warnings and/ or instructions. The Buyer is also responsible to obey all applicable federal, state, and local laws when operating his/her vehicle, and the Buyer agrees to hold Seller harmless from any violation thereof. Consult your vehicle warranty before using this Product. Under no circumstances will the Seller be liable for the voidance of the Buyer's vehicle warranty. Rather, the Buyer assumes all risk and responsibility if an automotive manufacturer and/or dealer voids the Buyer's vehicle warranty due to use of this Product. Operate your vehicle at all times in a safe manner. In no case will the Seller be held liable, and the Buyer assumes all risk and responsibility, for any property damage, personal injury and/or death that may occur in the event the Buyer operates the vehicle in an unsafe manner or violates the law.

All orders placed with the Seller (phone, fax, mail, verbal, or e-mail), either directly or through another dealer, constitute the acknowledgement and acceptance of all of the conditions listed below:

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www.annexsuspension.com

TRACK LOG

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NOTES

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