

Race Proven Motors, Inc

Pure Performance



COIL OVER FRONT SUSPENSION KIT

1991-1993 GMC SYCLONE/ TYPHOON.

WARRANTY/DISCLAIMER

THE PURCHASER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY AND ACCEPTABILITY OF THE FOLLOWING PRODUCTS PURCHASED FROM RACE PROVEN MOTORS, INC.

Purchaser understands and recognizes that racing parts, equipment and services provided and/or sold by Race Proven Motors, Inc, is subject to varied conditions due to the manner in which they are installed and used. The acceptability and suitability of any part sold or manufactured by Race Proven Motors, Inc is solely the purchaser's decision. Race Proven Motors, Inc. makes no warranties whatsoever, expressed or implied, oral or written, THERE IS NO WARRANTY OF MERCHANTABILITY.

By installing the following product, the buyer agrees to indemnify and hold Race Proven Motors, Inc and all its affiliates harmless from any claim, action or demand arising out of or incident to Buyer's purchase or installation of the following product purchased from Race Proven Motors, Inc.

If you have any reservations regarding this product and/or its warranty, please contact one of our representatives within 5 business days of receiving the product.

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FIRST, WE WOULD LIKE TO THANK YOU FOR PURCHASING THE RACE PROVEN MOTORS COIL OVER SUSPENSION KIT. WE KNOW YOU ARE ANXIOUS TO BEGIN INSTALLATION BUT PLEASE TAKE THE TIME TO THOROUGHLY READ THROUGH AND UNDERSTAND THE INSTRUCTIONS.

THE FIRST THING YOU WILL WANT TO DO IS VERIFY THAT YOU RECEIVED ALL THE PARTS IN GOOD CONDITION. YOU SHOULD HAVE THE FOLLOWING:

- (2) UPPER CONTROL ARMS
- (2) LOWER CONTROL ARMS
- (2) HYPERCOIL COIL OVER SPRINGS
- (2) HAL QA1 COIL OVER SHOCKS W/ MODIFIED SPRING CUPS
- (2) SPRING SPACERS
- (1) ADJUSTMENT TOOL
- (1) INSTALLATION KIT (PICTURED BELOW):
 - (4) POLYURETHANE UPPER CONTROL ARM BUSHINGS
 - (8) POLYURETHANE LOWER CONTROL ARM BUSHINGS
 - (4) LOWER CONTROL ARM BUSHING INSERTS (2.400" LONG)
 - (4) SHOCK ALIGNMENT BUSHINGS (LOWER SHOCK MOUNT (.250"))
 - (4) SHOCK ALIGNMENT BUSHINGS (UPPER SHOCK MOUNT (.330"))
 - (2) 1/2" BOLTS/ STOP NUTS FOR LOWER SHOCK MOUNT (2.5" LONG)
 - (2) 1/4" LONG BOLTS/ NUTS FOR BRAKE LINE TAB (3/4" LONG)



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NOTE: IF YOU DID NOT RECEIVE NEW BALL JOINTS FROM US, WE HIGHLY RECOMMEND YOU REPLACE THEM PRIOR TO INSTALLATION.

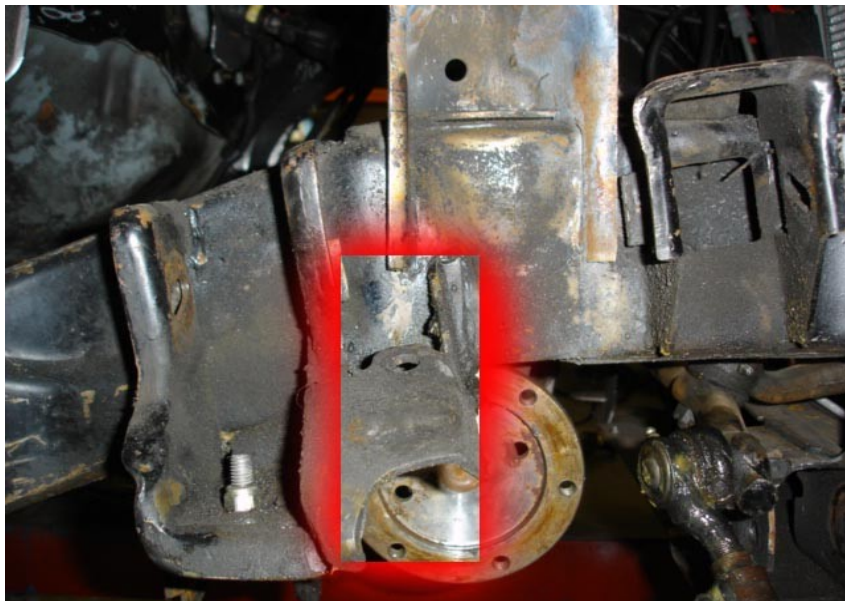
NOW THAT YOU HAVE VERIFIED ALL THE PARTS ARE THERE, IT'S TIME FOR THE INSTALLATION. PLEASE MAKE SURE TO FOLLOW THE WRITTEN INSTRUCTIONS (THE PICTURES ARE ONLY USED AS A VISUAL REFERENCE.)

1) REMOVE THE ENTIRE STOCK FRONT SUSPENSION. THIS MEANS THE TORSION BARS, UPPER/LOWER A-ARMS, FRONT AXLES, BRAKES, FRONT SWAY BAR AND SPINDLES. SET THE UPPER A-ARMS ASIDE AS YOU WILL NEED TO RE-USE SOME OF ITS COMPONENTS AT A LATER POINT.

NOW THAT THE SUSPENSION HAS BEEN REMOVED, YOU SHOULD BE LOOKING AT A BARE FRAME. THIS IS A GREAT TIME TO DO ANY CLEANING OR DEGREESING IN PREPARATION FOR CUTTING

THE FOLLOWING STEPS REQUIRE YOU TO REMOVE A SUPPORT BRACKET FOR THE NEW COIL SPRING.

3) HERE IS WHERE YOU MUST CUT THE REAR UPPER A-ARM SUPPORT BRACKET. ONLY CUT THE PORTION OF THE BRACKET WHICH CONNECTS THE BRACKET TO THE FRAME (**NOT** THE MOUNTING BRACKET ITSELF) THE AREA IS HIGHLIGHTED BELOW. SEE PIC #1



PIC #1

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AFTER REMOVING THIS BRACKET (1 PER SIDE OF VEHICLE) IT SHOULD LOOK LIKE THE PICTURE FEATURED IN PIC #2



PIC #2

NOTE: WE TYPICALLY USE A SAWZALL TO CUT EACH BRACKET AND A SANDING WHEEL TO SMOOTH OUT ALL THE ROUGH EDGES.

3) AT THIS TIME YOU WILL ALSO WANT TO TAKE ABOUT 1/4" OFF THE FRONT UPPER A-ARM BRACKET FOR ADDITIONAL COIL CLEARANCE. BE SURE TO LEAVE ENOUGH FOR THE ALIGNMENT WASHER TO REGISTER ON.

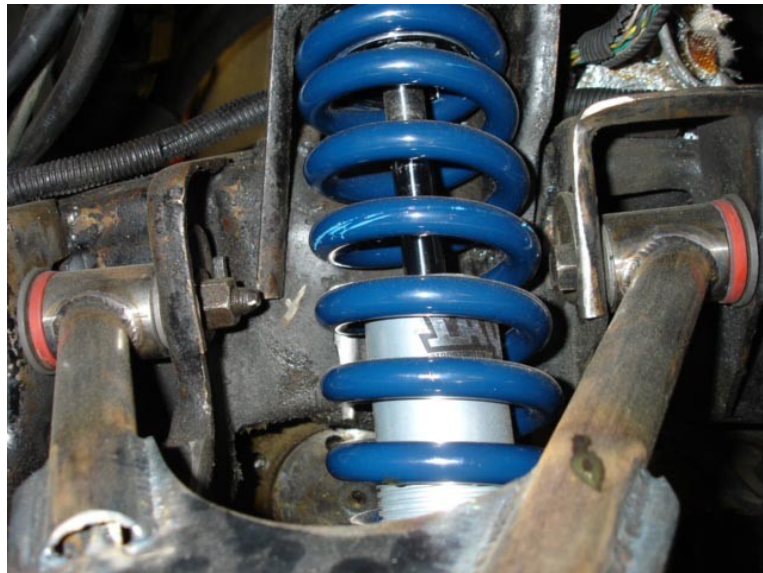
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PIC #3

WHEN FINISHED YOUR BRACKET SHOULD LOOK LIKE THIS. SEE PIC #4



PIC # 4

NOTE: WE TYPICALLY GRIND THE BRACKET FLUSH WITH THE LIP OF THE ALIGNMENT WASHER. THIS WAY YOU GET THE CLEARANCE YOU NEED FOR THE SPRING BUT ALSO KEEP THE ALIGNMENT WASHER FROM SPINING AROUND AND GOING OUT OF SPEC.

4) THIS CONCLUDES THE CUTTING PORTION OF THE INSTALL. NOW WOULD BE A GOOD TIME TO DO ANY TOUCH UP PAINTING, AS WE ARE READY TO INSTALL THE NEW COMPONENTS.

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5) NEXT YOU WILL BEGIN ASSEMBLING THE CONTROL ARMS. TAKE THE STOCK UPPER A-ARMS AND REMOVE THE INSERTS PICTURED BELOW. THESE MUST BE RE-USED WITH THE NEW POLYURETHANE BUSHINGS.



PIC #5

5) NEXT YOU MUST INSERT THE NEW BUSHINGS USING SOME WHITE LITHIUM GREASE INTO THE TUBULAR CONTROL ARM AND PRESS IN THE OLD METAL INSERTS. IT SHOULD LOOK LIKE THIS. SEE PIC #6

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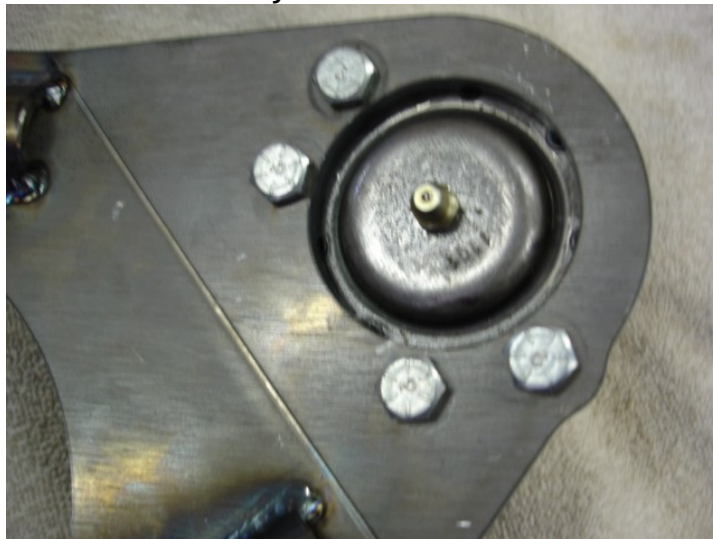


PIC #6

6) REPEAT PROCEEDURE UNTIL ALL UPPER A-ARM BUSHINGS ARE COMPLETE.

7) NEXT INSERT ALL THE POLYURETHANE BUSHINGS WITH WHITE LITHIUM GREASE INTO THE NEW LOWER CONTROL ARMS AND INSERT THE SUPLIED 2.4" LONG CHROMOLY INSERTS.

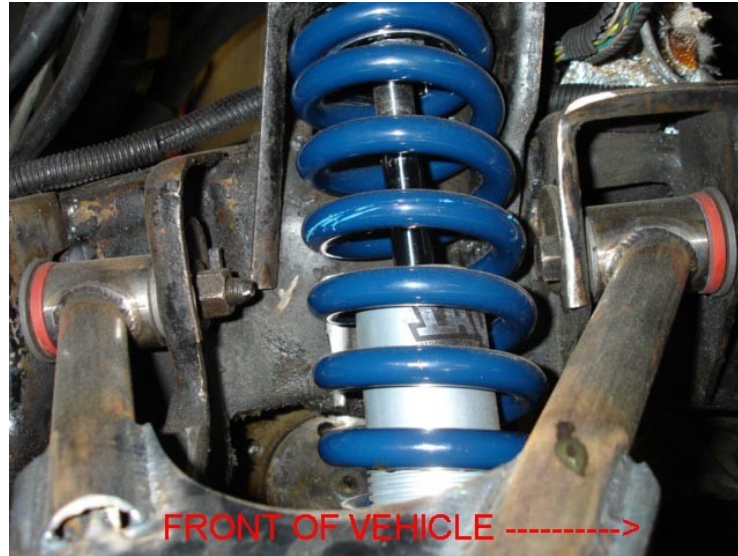
8) BOLT NEW FACTORY BALL JOINTS TO RPM CONTROL ARMS.



9) BOLT IN THE UPPER AND LOWER CONTROL ARMS USING THE FACTORY HARDWARE. FACE THE NUTS TOWARDS THE FRONT OF THE VEHICLE. NOTE HARDWARE DIRECTION IN PIC # 7

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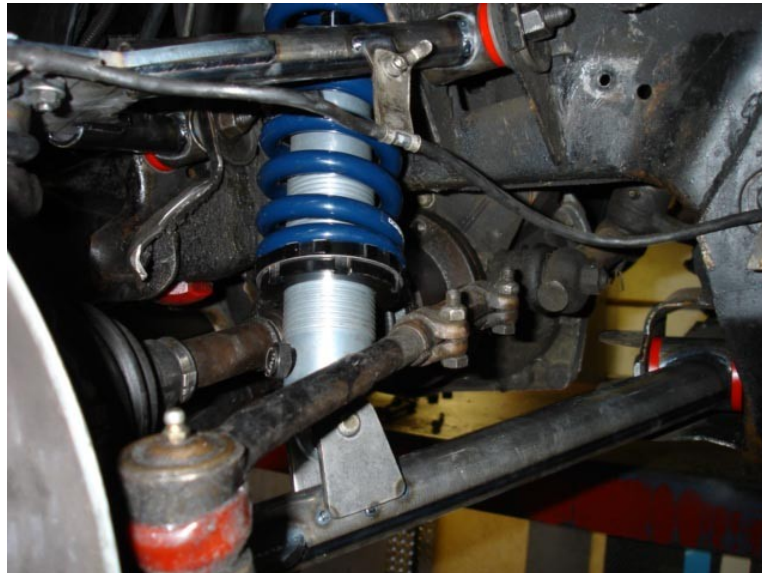
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PIC #7

10) NEXT RE-INSTALL THE SPINDLE, BRAKE ASSEMBLY, TIE ROD AND FRONT AXLE.

11) CHECK TO MAKE SURE TIE ROD HARDWARE IS FACING AWAY FROM THE SHOCK LOCATION. DO NOT TAMPER WITH THE TOE SETTINGS. SEE PIC #8



PIC #8

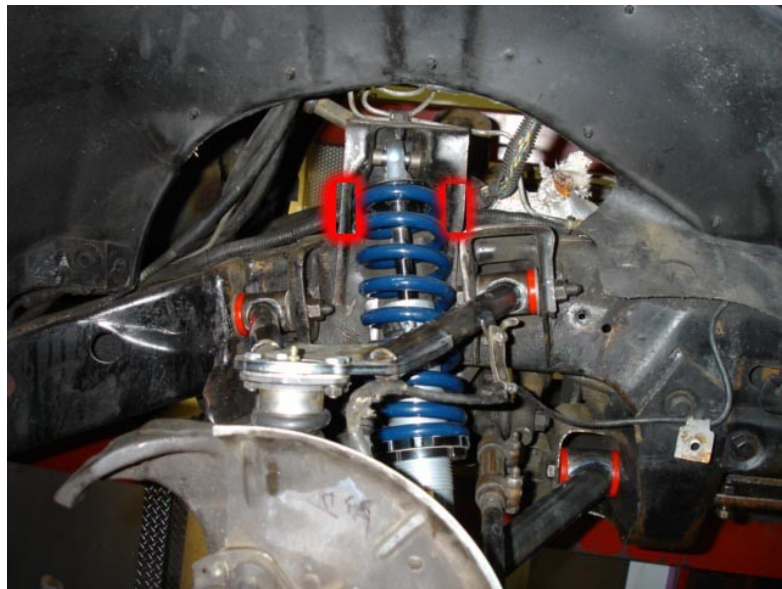
12) NOW IT'S TIME TO BOLT IN THE COIL OVER SPRING AND SHOCK. MOUNT THE COIL OVER IN A NORMAL FASHION WITH THE ADJUSTMENT KNOB AT THE BOTTOM. USE SUPPLIED .330" SHIMS

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FOR EACH SIDE OF THE UPPER SHOCK EYE, AND THE SUPPLIED .250" SHIMS FOR EACH SIDE OF THE LOWER SHOCK EYE. THE FACTORY HARDWARE IS RE-USED FOR THE UPPER SHOCK MOUNT, AND THE NEW SUPPLIED 1/2" BOLT AND STOP NUT ARE USED FOR THE LOWER SHOCK MOUNT.

NOTE: SOME APPLICATIONS REQUIRE YOU TO EXPAND THE UPPER SHOCK TOWER EVER SO SLIGHTLY FOR ADDITIONAL SPRING CUP CLEARANCE. ONLY EXPAND WHAT IS NECESSARY AND ONLY THE AREA DETAILED IN PIC #9



PIC #9

13) HOPEFULLY BY NOW THE NEW COIL OVER KIT IS BOLTED IN AND TORQUED DOWN TO FACTORY SPECS. NOW IS A GOOD TIME TO VERIFY ALL CLEARANCES BOTH AT RIDE HEIGHT AND THROUGHOUT THE RANGE OF SUSPENSION TRAVEL. BE SURE TO ALSO TURN THE STEERING WHEEL FROM LEFT TO RIGHT AND WATCH FOR ANY POSSIBLE CLEARANCE ISSUES. BY NOW IT SHOULD LOOK LIKE THIS. SEE PIC #10

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PIC #10

14) NOW THAT YOU HAVE SUCCESSFULLY COMPLETED THE INSTALLATION IT'S TIME TO BOLT BACK ON THE SWAY BAR AND FRONT WHEELS TO HAVE THE TRUCKS ALIGNMENT CHECKED. SINCE WE DID NOT CHANGE ANY OF THE SUSPENSION GEOMETRY FROM FACTORY SPECS YOU SHOULD BE ABLE TO USE "NORMAL" ALIGNMENT SPECS.

PROVIDED BELOW IS A CHART OF "HIGHLY RATED" SPECS AMONG SYTY ENTHUSIASTS.

<u>Specification</u>	<u>Caster</u>	<u>Camber</u>	<u>Toe</u>	<u>Cross Camber</u>	<u>Cross Caster</u>
s					
Left	+3.5	-0.3	0.08	n/a	n/a
Right	+3.5	-0.3	0.08	n/a	n/a
Tolerance	0.0	0.0	0.06	0.3	0.3

THANK YOU AND PLEASE DRIVE CAREFULLY !