

# **HOTCHKIS**

---

## **SPORT SUSPENSION**

### **22402 SPORT SWAY BAR SET**

**02-UP TOYOTA MATRIX 2WD / COROLLA / PONTIAC VIBE**



Thank you for your purchase from our line of Toyota Matrix, Corolla & Pontiac Vibe parts. Please call us at (877) 4NO-ROLL if you have any questions regarding the service or installation of your Hotchkis products. Visit us on the web @ [www.hotchkis.net](http://www.hotchkis.net)

- ❖ *Hotchkis recommends that this sway bar set be installed by a professional, as the front sway bar can only be removed or installed by detaching the front engine cradle and lowering it from the vehicle!*

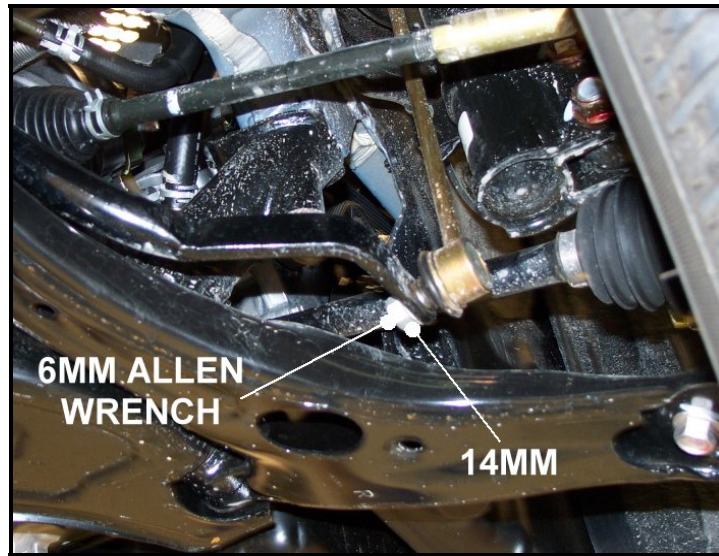
Tools required for this installation:

- Hydraulic jack, jack stands, torque wrench
- The following sockets or wrenches: 12mm, 14mm, 17mm, 19mm
  - The following Allen wrenches: 6mm
- Suggested tools: 6" socket extension, swivel ratchet

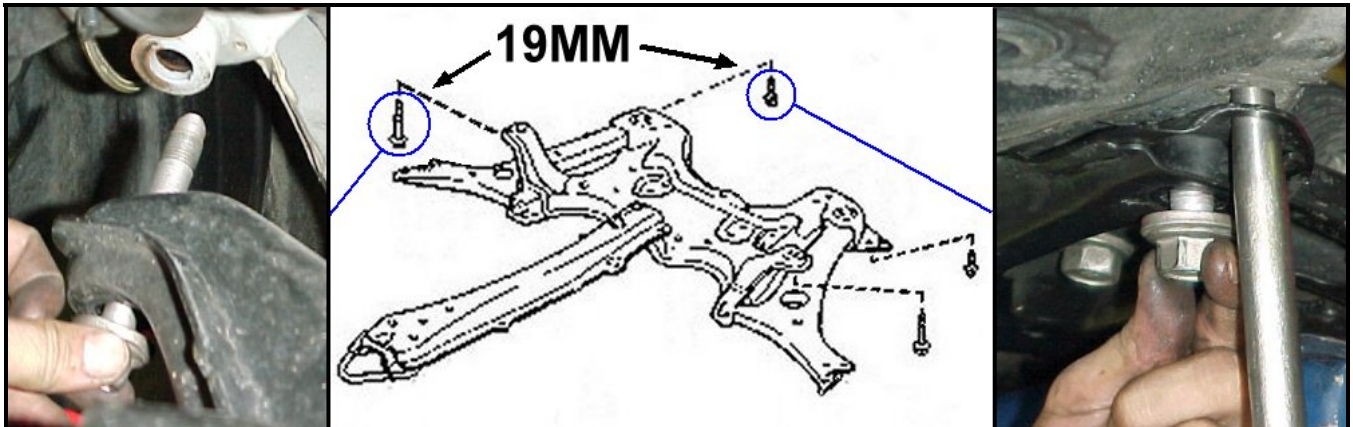
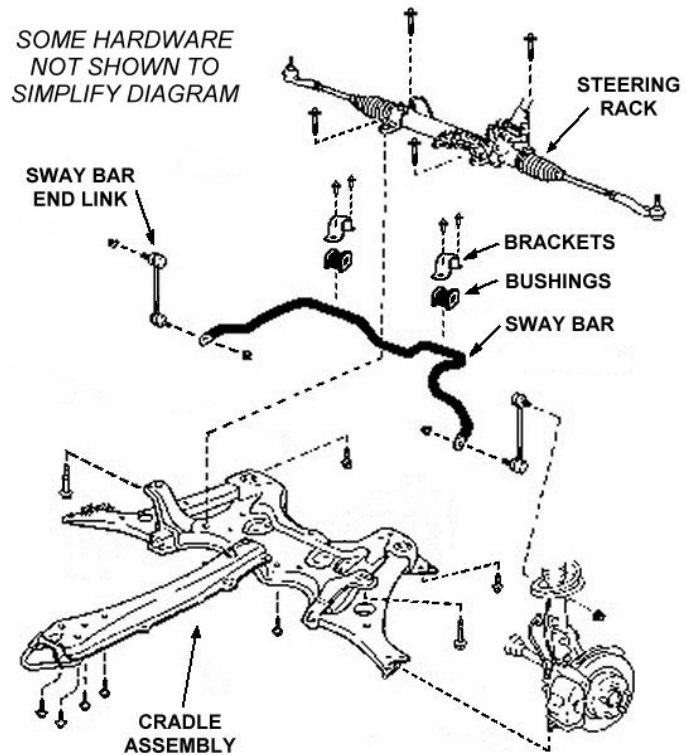


### **INSTALLATION OF HOTCHKIS FRONT SWAY BAR**

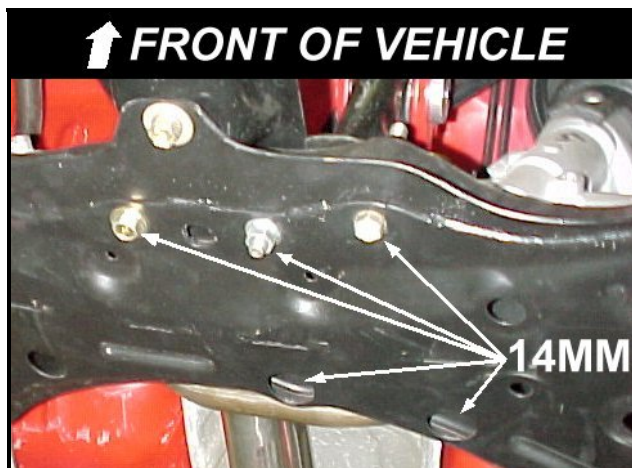
- 1) Securely block the rear wheels of the vehicle. Use a jack to lift up the front of the vehicle and use jack stands to support it. Do not remove the front wheels during installation for safety.
- 2) Use a 14mm wrench and 6mm Allen wrench to remove the nuts holding the end links to the ends of the stock sway bar. Remove the end links from the ends of the sway bar. Retain the hardware for later use.



- 3) Use a 19mm Wrench or socket to remove the four bolts mounting the cradle to the sub frame. Retain the bolts for later re-installation.

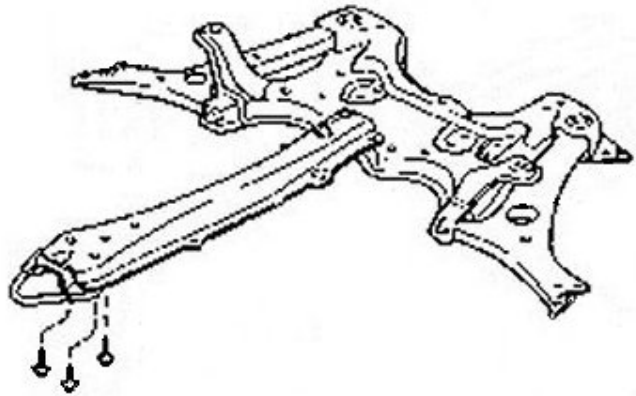


- 4) Use a 14mm socket or wrench to remove the two nuts and three bolts holding the lower engine mount to the cradle. Retain the hardware for later re-installation.

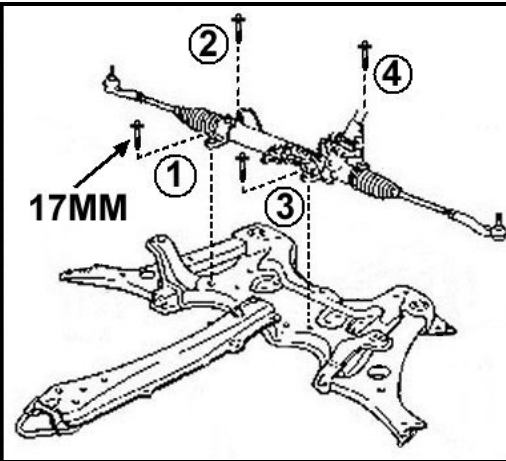
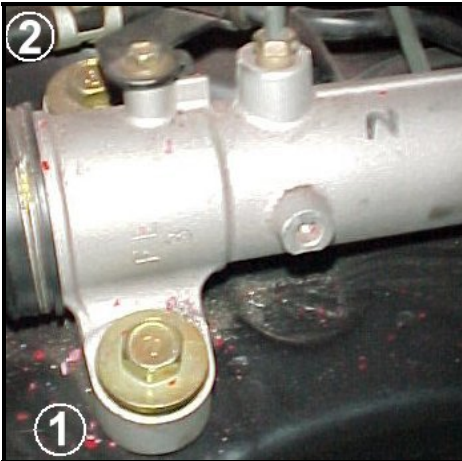




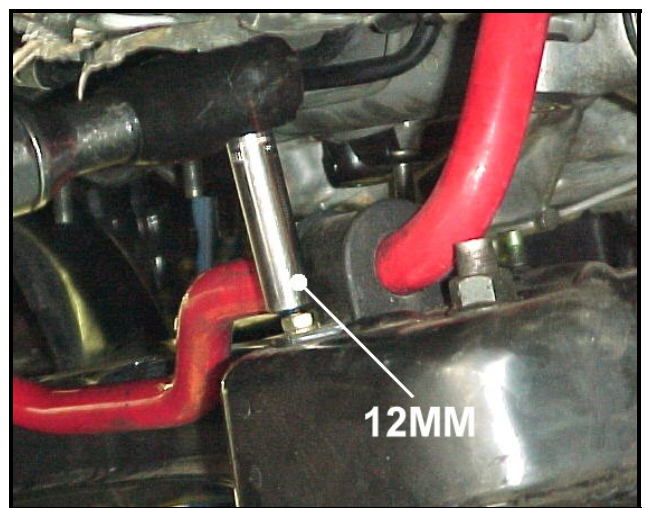
- 5) Use a 14mm wrench or socket to remove the three bolts holding the front of the cradle assembly to the radiator support. Retain the hardware for later re-installation.



- 6) Use a 17mm wrench or socket to remove the four bolts holding the steering rack to the cradle. Retain the hardware for later re-installation.



- 7) With all the bolts removed the cradle should droop loosely enough to reach the sway bar mounted to the top rear portion of the cradle. Use a 12mm socket or wrench to loosen and remove the four bolts holding the stock sway bar in place. Remove the stock sway bar, bushings and brackets. Retain the stock hardware for later re-installation.

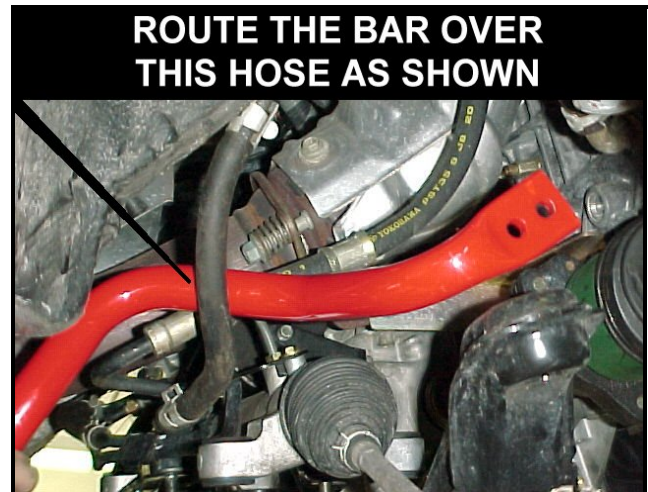




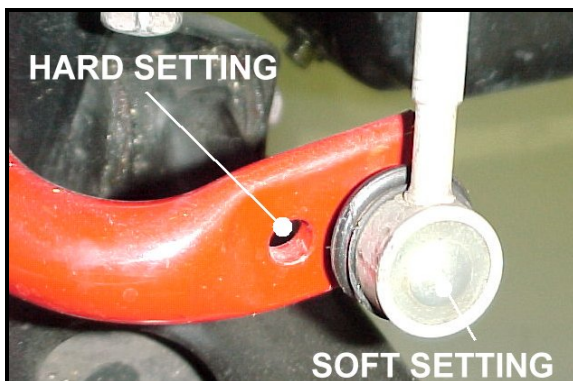
- 8) Use the grease pack provided to apply a thick coat of grease to the inside of the new sway bar bushing. Place the greased bushing over the sway bar with the split in the bushing towards the front when installed in the vehicle. Slide the bushing retainer bracket over the bushing. Cover the zerk fitting as shown with the attached plastic cap.



- 9) Lift the front sway bar into the stock position on the cradle. Route the bar over the hose as shown. Use the stock hardware and a 12mm socket or wrench to hold the brackets in place on the cradle. Torque the bracket hardware to 14 ft/lbs.

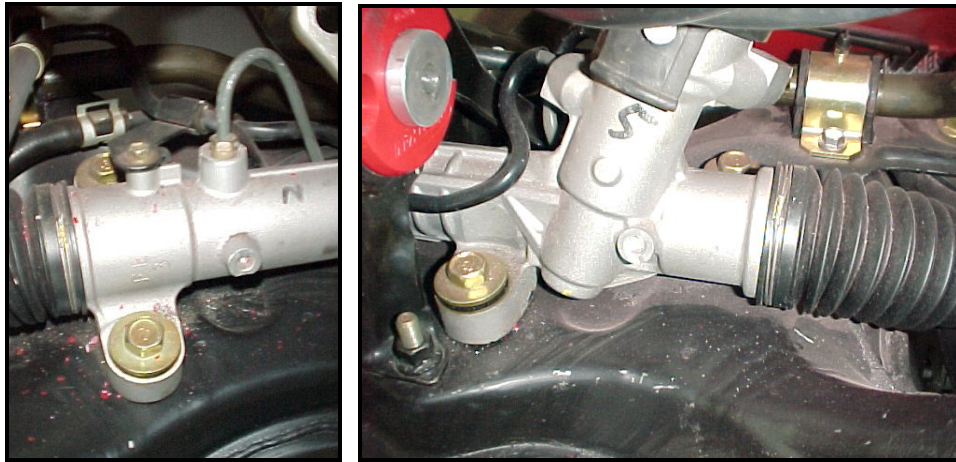


- 10) Re-attach the end links to the sway bar. Set the bar to the "soft" stiffness setting by using the hole closest to the end of the bar while the "hard" stiffness setting is the farther hole from the end of the bar. Use a 14mm wrench and 6mm Allen wrench to tighten the end links. Torque the nut to 32 ft/lbs. *If you purchased Hotchkis kit number #25400 (street end links), then you should follow the instructions included with that kit at this time to replace your end links.*

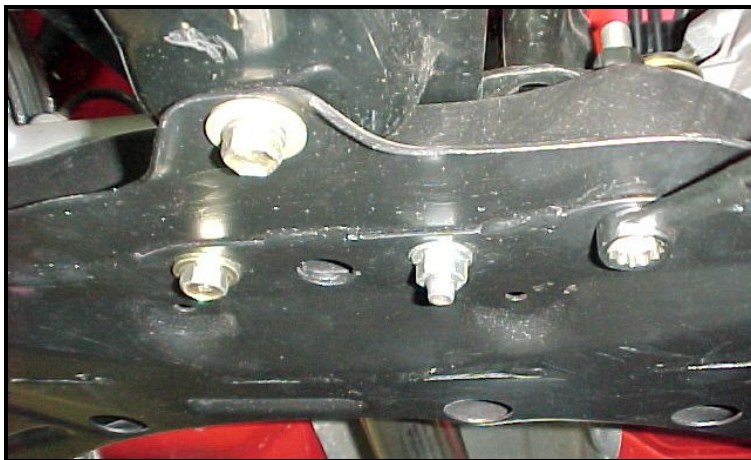




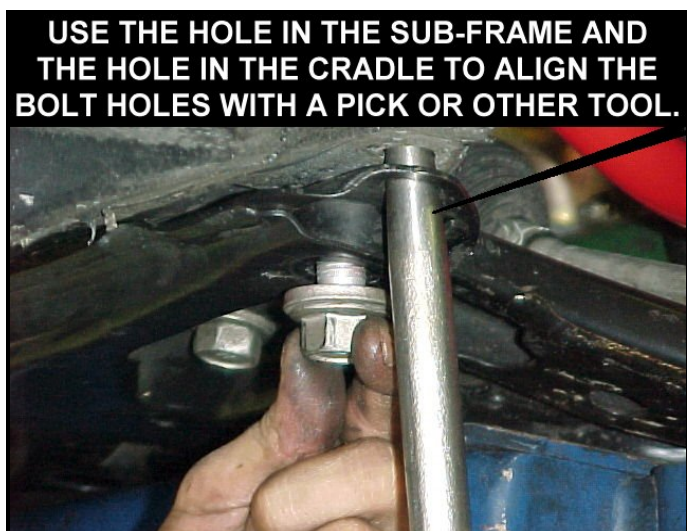
- 11) Replace all the hardware removed earlier to secure the cradle again. Reverse steps 3-6. Start by re-attaching the steering rack to the cradle using a 17mm wrench or socket. *You may need help with this step as you'll have to support the cradle a bit to line it up and get the bolts started through the holes.* Torque the hardware to 45 ft/lbs.



With the steering rack attached and tight, you can line up and start the remaining hardware. **Leave the hardware loose until all cradle bolts are in place.** Replace the hardware mounting the cradle to the lower engine mount and the front of the cradle to the radiator support.

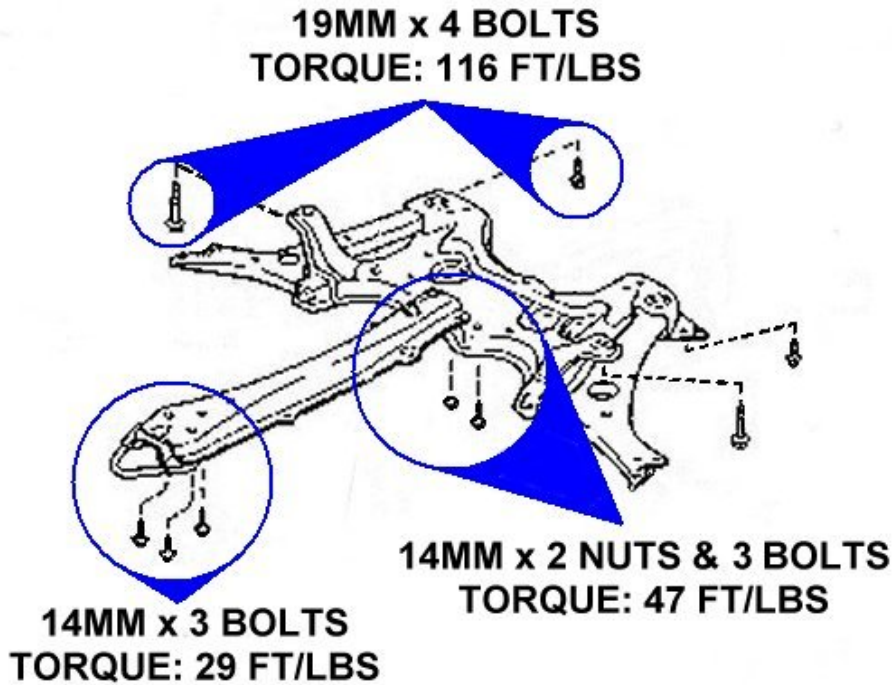


Replace the four large bolts connecting the cradle to the sub-frame. *You may need to use a large pick or other tool to align the sub-frame and cradle in order to start the bolt into the sub-frame.*





- 12) With all the hardware in place on the cradle you may torque everything down as per the diagram shown here. Torque the four main cradle bolts to 116 ft/lbs. Torque the 3 bolts and 2 nuts attached to the engine mount to 47 ft/lbs. Finally, torque the three front cradle to radiator support bolts to 29 ft/lbs.



- 13) Re-check all hardware for tightness. Use a jack to remove the jack stands and you're ready to move on to the rear sway bar!

**IMPORTANT:** For proper maintenance the zerk fittings should be used to grease the sway bar bushings at least once a year (15,000 miles) or whenever excessive noise occurs. Use a non-lithium based grease only! Lithium-based grease can wash out with water, and should not be used.



**MOVE ON TO THE REAR SWAY BAR INSTALLATION**

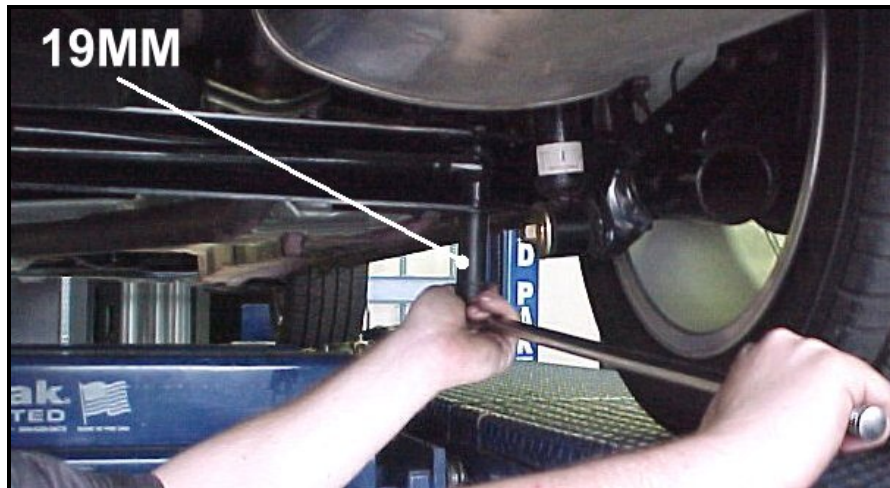
Please call us at (877) 4NO-ROLL if you have any questions regarding the service or installation of your Hotchkis products.

Tools required for this installation:

- Hydraulic jack, jack stands, torque wrench, breaker bar
- The following sockets or wrenches: 19mm
- A tube of Thread Locker or Lock Tight to secure the threads

## INSTALLATION OF HOTCHKIS REAR SWAY BAR

- 1) Securely block the front wheels of the vehicle. Use a jack to lift up the rear of the vehicle and support with jack stands. As with the front installation, you should not remove the rear wheels.
- 2) Use a 19mm socket or wrench to loosen the factory hardware holding the rear sway bar in place. This is an EXTREMELY tight bolt from the factory and will probably require a breaker bar to loosen.



- 3) Remove the bolts from the stock bar and remove the stock sway bar. Retain the hardware for later re-installation.





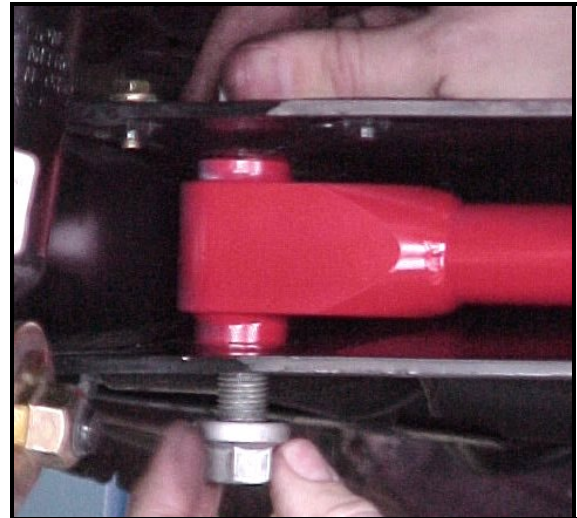
- 4) Insert the new Hotchkis bar in the same manner as the stock bar was positioned.



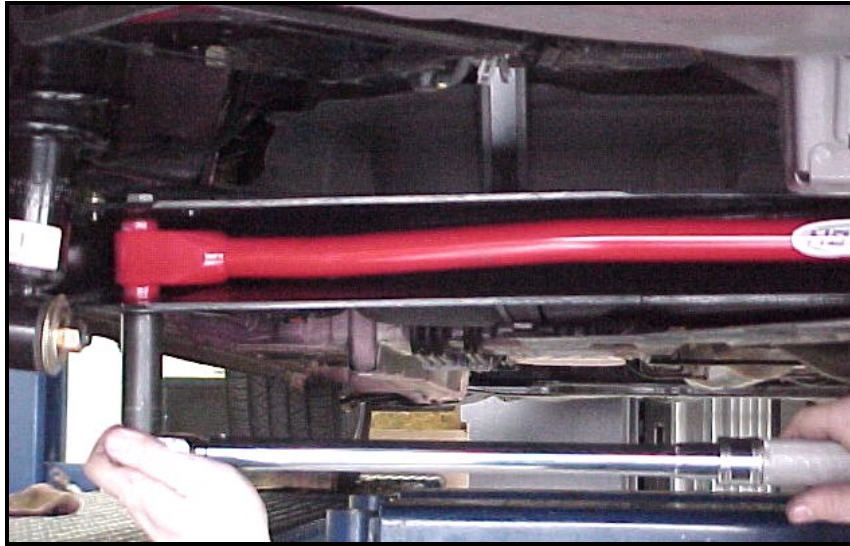
*The bent portion of the bar, or "hoop", should face upwards when looked at from the rear of the vehicle.*



- 5) Apply Lock Tight or some other thread lock substance to the the bolt threads. Insert the bolts from the top of the suspension beam and start the nuts on the ends of the bolts.



- 6) Use a 19mm socket or wrench to torque the bolts to **150ft/lbs.** This is a factory torque spec. If you fail to do this, the bolts WILL loosen through use.



- 7) Re-check all hardware for tightness. Use a jack to remove the jack stands and you're finished installing your new Hotchkis sway bars!



**SEE NEXT PAGE FOR PARTS LIST**



02-up Toyota Matrix 2WD / Corolla / Pontiac Vibe Sport Sway Bar Kit, Parts

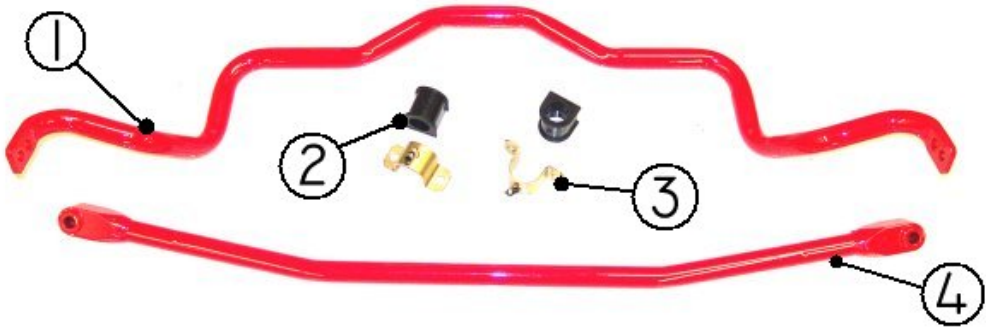
List

P/N 22402

|   | Hotchkis P/N | Item Description                                  | Quantity Per Kit |
|---|--------------|---------------------------------------------------|------------------|
| 1 | 22820092     | Competition - Front Sway Bar, 00-up Toyota Celica | 1                |
| 2 | 5340G        | 1" Sway Bar bushing, Greaseable                   | 4                |
| 3 | 15.12.39.39  | 1" Small Bushing Bracket, Greaseable              | 4                |
| 4 | 22920140     | Competition - Rear Sway Bar, 00-up Toyota Celica  | 1                |

Items Not Shown

|   |         |                 |   |
|---|---------|-----------------|---|
| 5 | 9.11108 | Grease Pack     | 1 |
| 6 | n/a     | Instruction Set | 1 |



## SEE WHAT ELSE HOTCHKIS PERFORMANCE HAS FOR YOUR 02+ COROLLA



✓ *Performance street coils!*

*Look for Hotchkis parts on selected Toyota Motor Sports built show cars!*

**Check out Hotchkis on the web at [www.Hotchkis.net](http://www.Hotchkis.net) or  
Call (562) 907-7765 to order!**



**Hotchkis KNOWS Celica like nobody else!**  
*Perhaps you've heard of our first little project...*



*The first Hotchkis "project" Celica, introduced to the world at the SEMA 2001 show.*



“Aggressive alignment settings, adjustable parts everywhere and super sticky tires make it among the most fun cars we’ve ever driven on a racetrack. With superb balance and instant communication between the driver and the road, the Hotchkis Celica can easily put the hurt on far more powerful machinery.”

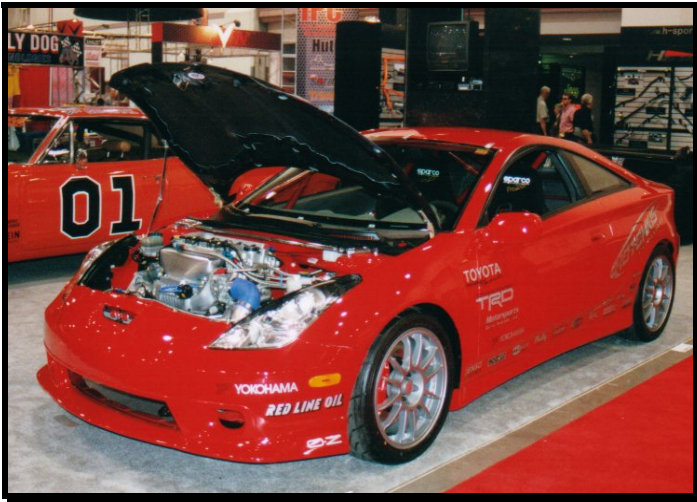
*Sport Compact Car, August 2002 Issue “Celica Bash”*

This Celica has graced many magazines and been used for extensive testing. As a result of its travels and event participations, it currently holds one and shares another handling record of Sport Compact Car. **This vehicle owns the SCC record for the 600ft slalom at 76.9 mph average**, which bested the previous record speed of 73.8 mph, set by a modified MR2. **It also shares the SCC braking distance record of 97ft in a 60-0 stop**, which bested the previous record of 105ft. Toss in a **skid pad reading of 1.03g (within .01g of another SCC record)** and you’d think we’d be happy right? Well, we’re not even close to being finished with Celica development! Wait until you see our new project...

*While establishing the benchmark for handling is nice, we needed a new challenge...*

Working closely with Toyota Motor Sports Hotchkis has sought to take Celica to new heights of performance. Having already built a dominant “street car” that was also a strong track car we decided to try our hand at something a tad bit different...

At the 2002 SEMA show the automotive world got a preview of the new ***EXTREME*** Hotchkis Celica.



- Powered with a roots style Magnuson supercharger...
- Toyota Racing Development brakes for that stopping “bite”...
- Fully integrated custom roll cage, gauges from Auto Meter, Sparco seats and harnesses...
  - Countless hours of custom fabrication work by Lyman Racing in California...
- Functional adjustable ARP carbon fiber spoiler, and a carbon fiber hood from APC...
  - 17 inch OZ Racing wheels wrapped with some sticky Yokohama tires...

***Want to race?***



Look for this vehicle at future events featuring Hotchkis!

Stay up to date on this project vehicle and others by checking out Hotchkis on the web at [www.Hotchkis.net](http://www.Hotchkis.net)





## Hotchkis Performance LLC Return Policy & Limited Warranty

Effective January 1, 2009 all Hotchkis products must be registered to qualify for warranty at [www.hotchkis.net](http://www.hotchkis.net) or via the mail-in warranty card, included with the product, within 30 days of the original purchase date.

### Return Policy

We want you to be completely satisfied with your Hotchkis Performance product. For products, presenting signs of shipping damage please contact the freight carrier immediately. All our products are guaranteed to be free from manufacturer's defects. If your order arrives with a manufacture defect, please contact our Customer Service Department at (562) 907-7757. You will be assigned a Returned Goods Authorization Number (RGA). The package you return must show the RGA on the outside of the package, include the original invoice and be shipped prepaid to our facility. The product has to be unused and in its original packaging materials. Exchanges or refunds made after 30 days will be subject to a 20% restocking charge. **If you purchased your Hotchkis Performance product from an authorized dealer, you are still covered by this return policy. All returns however, should be made to your dealer, not to Hotchkis Performance directly.**

### Limited Warranty

Hotchkis Performance offers a Limited Warranty against defects in materials and workmanship of its products. This Warranty only applies to the original retail purchaser who retains ownership of the vehicle on which the product was originally installed. If the product is determined to be defective, Hotchkis Performance will repair, replace or refund the purchase price of the defective product at Hotchkis Performance's sole discretion, which shall fully satisfy and discharge any and all warranty claims. Any repaired or replaced product will be returned to the sender excluding the cost of freight. **Products must be registered to qualify for warranty at [www.hotchkis.net](http://www.hotchkis.net) or via the mail-in warranty card, included with the product, within 30 days of the original purchase date.**

### Exclusions from Warranty

Items offered but not manufactured by Hotchkis Performance are warranted according to the manufacturer's terms and are not covered by this limited warranty. Hotchkis Performance shall not be responsible for any labor, removal, installation, re-installation or maintenance costs. This warranty does not cover the cosmetic finish or plating of any product or any normal wear and tear to any product including, but not limited to bushings, brackets, end-links, hardware, steering components, shocks or springs. In addition, this warranty does not apply to any products that have been:

- Improperly installed or installed by someone other than a qualified, licensed auto mechanic experienced in the installation and removal of suspension products;
- Improperly serviced, misused, or modified, altered or subjected to abuse, negligence, accident or collision;
- Installed in any vehicle that has been modified;
- Installed on any vehicle that has carried loads in excess of automobile manufacturer suggested weight limits; or
- Installed on any vehicle that has been subject to abnormal or excessive use, including rallying, racing, or racing-type activities or off-road use.

### Limitation of Warranty

This limited warranty is the entire and only warranty for the products and may not be modified or supplemented by any other person or company in any form. Any description of the products, by anyone, is for the sole purpose of identifying them and is not part of the basis of the bargain, and does not constitute a warranty that the products will conform to that description. The statements

of any salesperson do not constitute part of this limited warranty and cannot be relied upon as a warranty.

**THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. ANY IMPLIED WARRANTIES ARE DISCLAIMED TO THE FULLEST EXTENT PERMITTED BY LAW. THIS WARRANTY DOES NOT COVER CONSEQUENTIAL DAMAGES, LOSS OF TIME OR REVENUES, INCONVENIENCE, LOSS OF USE OF THE VEHICLE, DAMAGE TO THE VEHICLE OR COMPONENTS OF THE VEHICLE, ANY OTHER TYPE OF CONSEQUENTIAL DAMAGES, OR OTHER INCIDENTAL OR INDIRECT DAMAGES. HOTCHKIS' MAXIMUM LIABILITY UNDER THIS WARRANTY SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PRODUCT.** Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages and in such states the above limitations or exclusions may not apply. This limited warranty gives the purchaser specific legal rights and the purchaser may have other rights that may vary from state to state.

#### **Technical Information**

Hotchkis Performance makes every effort to ensure that you are provided with the most accurate and up-to-date technical information. However, all technical information is approximate and may vary upon application. Additional suspension components may be needed in some applications, depending upon the make, model, engine and chassis of the vehicle. Hotchkis Performance is not responsible for any consequences resulting from manufacturer's technical mid-year changes. Hotchkis Performance products should only be installed by a qualified, licensed auto mechanic experienced in the installation of such products.

#### **Warranty Claim Procedure:**

The answer to ALL the following questions should be YES before making a warranty claim:

- Did you register the product at [www.hotchkis.net](http://www.hotchkis.net) or via the mail-in warranty card within 30 days of purchase?
- Is the product appropriate to your application?
- Did you carefully and thoroughly read the instructions provided along with the product?
- Do you have the original invoice or sales receipt?
- Are you the original purchaser?
- Was the product properly installed by a qualified, licensed auto mechanic?
- Has the product been installed on the original vehicle on which it was installed at all times?
- Is the product unmodified and clean?
- Is the reason for return a legitimate product defect?

If the answer to all these questions is YES, please contact our Customer Service Department at (562) 907-7757. You will be given a Returned Goods Authorization Number (RGA) valid for 60 days. You will also be asked to ship the product prepaid to our facility. All shipments MUST be (i) prepaid, (ii) include the original invoice or sales receipt, (iii) show the RGA on the outside of the package and (iv) include your name, address, make and model of the vehicle, and a brief description of the claimed defect, including the circumstances under which the defect occurred. If the warranty claim is deemed valid then Hotchkis will estimate shipping costs to return the repaired or replacement part and contact you for payment. Hotchkis's Limited warranty requires that any repaired or replaced product will be returned to the sender excluding the cost of freight. Warranty related inquiries should be sent to the following address:

**HOTCHKIS PERFORMANCE, LLC  
C/O CUSTOMER SERVICE  
12035 BURKE ST. SUITE 13  
SANTA FE SPRINGS, CA 90670**

Hotchkis Performance will not accept product returns without the RGA number, receipt and the information described above. C.O.D. or collect shipments will be refused. Once the returns are



received at Hotchkis Performance, we will evaluate the products, verify the sales receipt, and investigate the warranty claim. Any repaired or replaced product will be returned to the sender.

**Effective January 1, 2009. This return policy and limited warranty supersedes all previous policy and warranty statements. Policies and warranties are subject to change without notice. Hotchkis Performance is not responsible for printing errors.**