

# IMPORTANT NOTICE

\*The Hotchkis Front Upper and Lower A-Arms are intended for disc brake trucks only. This means if you have a stock 63-70 drum brake spindle, you will have to convert to disc brakes. 73-87 C10 spindles are recommended.

#### **Ball Joint Info:**

Before you install this product, please verify which front spindles you have. We have designed the upper aarms to utilize the 73-87 style spindles. This type of spindle was widely used in disc brake conversions due to its easy interchangeability and readily available replacement parts (e.g. ball joints, tie rods). The Hotchkis lower a-arm ball joints will work with spindles from 71-87. However, if you have original 71-72 style disc brake spindles and you would like to install Hotchkis <u>upper</u> a-arms, you will need to order ball joints from us to convert the Hotchkis upper a-arms to work with that spindle. (Part **# FA683**) If you have 63-70 style disc brake spindles, you have two options. 1) You can upgrade your spindles and brakes to a 73-87 style spindle. Or 2) swap out the ball joints for the Mcquay-Norris ball joints (Upper Part **#FA480/Lower** Part **#FA481**). We currently do not stock the FA480 or FA481 ball joints, however these can be purchased at your local auto parts store.

#### Steering Tie Rod End Info:

Our Lower A-Arm kit includes a redesigned steering center link, which improves bumpsteer. Trucks from 63-70 have the appropriate 5/8" inner tie rod end that will work with our center link.

71-72 trucks have larger tapered inner tie rod ends and will be required to buy 65-70 inner tie rods to accommodate the Hotchkis center link. You can purchase the 5/8" inner tie rod from your local auto parts store (Napa P/N ES350L or equivalent). This actually considered an outer tie rod with left hand thread, but you will use it for your inner tie rods instead. You will be using the included Hotchkis 5/8" to 11/16" tie rod sleeves. These will adapt the inner 5/8" thread and the outer 11/16" thread. Trucks using a 73-87 late model conversion spindle will also be using the included Hotchkis 5/8" to 11/16" tie rod sleeves. Trucks using a 63-70 disc brake conversion spindle utilize the 5/8" outer tie rod ends and you will need to purchase Hotchkis kit #16391, which has the proper 5/8" to 5/8" to 5/8" tie rod sleeves.

Summary of Spindle & Steering Requirements:

- 63-70 Stock Drum Brake Spindle
  - Not Recommended
- 63-70 Disc Brake Conversion Spindle (Aftermarket)
  - #FA480 (Mcquay Norris Upper Ball Joint Sold separately)
  - #FA481 (Mcquay Norris Lower Ball Joint Sold separately)
  - Hotchkis Tie Rod 5/8" to 5/8" Sleeve Kit (P/N 16391)
  - Uses Inner & Outer tie rods made for 63-70
- 71-72 Disc Brake Spindle (Stock)
  - #FA683 (Mcquay Norris Upper Ball Joint Sold separately)
  - Use 63-70 (5/8) Outer Tie Rods (Napa P/N ES350L) (Will be used as INNER Tie rods)
- 73-87 Disc Brake Spindle (Stock or Aftermarket)
  - Use 63-70 (5/8) Outer Tie Rods (Napa P/N ES350L) (Will be used as INNER Tie rods)
  - Use 73-87 (11/16) Outer Tie Rods (Napa P/N ES409R) (Will be used as OUTER Tie rods)





Thank you for your purchase from our new line of Chevy parts. Please call us at 877 - 4NO - ROLL if you have any questions regarding the service or installation of your Hotchkis Performance products.

IMPORTANT: PLEASE READ THE ENTIRE INSTRUCTION MANUAL BEFORE STARTING THIS INSTALLATION. THIS KIT IS INTENDED FOR TRUCKS WITH 71-72 OR 73-87 DISC BRAKE SPINDLES. YOU MUST HAVE MECHANICAL KNOWLEDGE AND EXPERIENCE TO PERFORM THIS INSTALLATION. IF YOU ARE UNCERTAIN WITH THE PROCEDURE FOR THIS KIT PLEASE HAVE THE INSTALLATION PERFORMED BY A PROFESSIONAL TECHNICIAN.





# Installation of Hotchkis Lower A-Arms

## 1 Raise the Truck

Raise the vehicle by using a drive-on alignment rack. Securely block the rear wheels of the vehicle.



## 2 Disconnect the Shock

Unbolt the lower shock mount on the rear side of the lower A-arms.





## 3 Disconnect the Lower Ball Joint

Remove the cotter pin from the lower ball joint stud. Use a wrench to loosen the castle nut that secures the lower ball joint to the spindle. Do not remove the castle nut entirely. Keep most of the castle nut still engaged for safety. Using a heavy hammer, hit the lower portion of the spindle to break loose the ball joint stud from the spindle. The weight of truck with the impact of the hammer should break loose the tapered press fit of the ball joint stud from the spindle. You may want to spray the stud area with penetrating oil if you're having a difficult time breaking it loose.



Once the ball joint is loose from the spindle, raise the chassis from the frame rails until the front wheels lift off the ground. Support the lower control arm with another floor jack and raise the suspension slightly to relieve the pressure on the castle nut. Remove the castle nut and SLOWLY lower the floor jack until the lower ball joint stud comes out of the spindle. The spring may have some preload in it, so carefully lower the a-arm more until the pressure is removed from the spring. Remove the spring at this point.

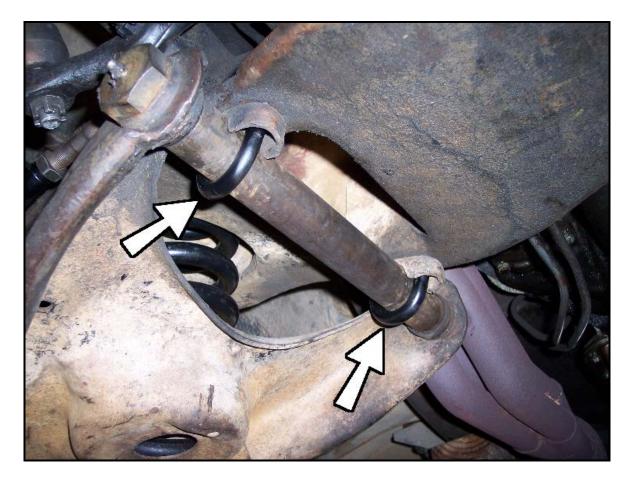
# 4 Disconnect Front Sway Bar End Links

If your truck is equipped with a factory front sway bar, undo the end links that attach to the lower aarms.



## 5 Disconnect the Lower A-Arm Cross shaft

At this point, the only thing holding the lower a-arm to the car is the cross shaft. Undo the 2 U-bolts for each arm that secure the cross shaft to the chassis. Remove the a-arm from the vehicle.

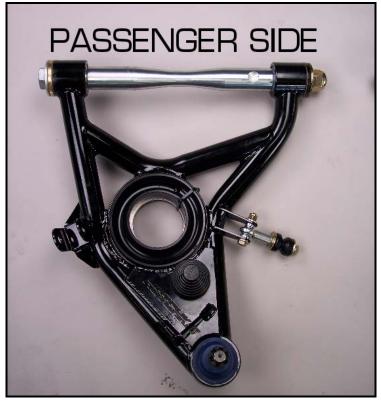




# 5 *Reinstall the Hothckis Upper A-arms*

Reinstall the Hotchkis a-arms in the same manner as removal. The a-arms are side specific, so please take caution when installing them.







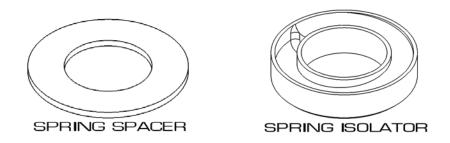
Please also note the orientation of the cross shaft. The front section of the cross shaft has a positioning hole that mates to the front mount on the chassis.



Install the cross shaft onto the vehicle first, using the same u-bolts that held in the stock arms. Fully tighten this hardware.



Reinstall the spring, positioning the top of the coil first. The Hotchkis a-arm includes a modular spacer and spring isolator. The spacer allows you to lower your ride height by  $\frac{1}{2}$ " if removed. If you would like to retain the same ride height, then leave the single spacer in place. The polyurethane isolator can be clocked so that the spring can seat properly in the a-arm.



Support the bottom side of the lower a-arm with a floor jack. You should hold the coil spring in position and ready for compression.

You will need to raise the lower a-arm using your floor jack until the ball joint inserts into the spindle. Make sure your coil spring is properly seated in the top and bottom. Spin the included castle nut on the stud and fully tighten. Make sure to line up the castle nut with the cotter pin hole. Insert the cotter pin and bend to lock.

Grease all of the ball joints

Reinstall the shocks and wheels.

Continue to the next page to begin the center link installation. You should not install the Hotchkis lower a-arms without installing the Hotchkis center link. You will have adverse bumpsteer otherwise. You may keep the front end jacked up off the ground for the time being.

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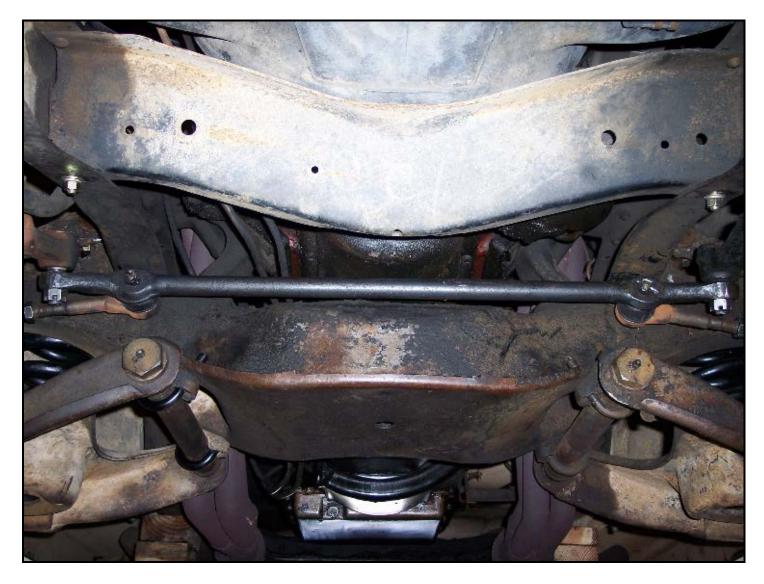


# Installation of Hotchkis Centerlink

## 1 *Remove the Stock Steering Center Link*

Since the Hotchkis arms alter the suspension geometry to improve front end grip, the steering center link needs to be replaced to avoid any unwanted bumpsteer that is created with this change.

With the front end still off the ground, remove the cotter pins on the inner tie rod ends, idler arm, and pitman arm. Loosen all of the castle nuts associated with these cotter pins. Use a ball joint puller or pickle to disconnect each stud from the center link. The impact of a hammer may help pop some of them loose. Use penetrating oil on the tapers to help loosen them up as well.





Once you've removed the center link from the vehicle, compare it to the Hotchkis center link for proper orientation.



#### SPECIAL NOTE:

We include new steering tie rod turnbuckles for customers with disc brake conversions that utilize the 5/8" inner tie rods with 11/16" outer tie rods. If you have 5/8" inner and outer tie rods, then you may use your stock steering turnbuckles for this installation.

Early 1960-66 trucks ONLY will need to use an adapter spacer that inserts into the Hotchkis center link where the Idler Arm attaches.





# 2 Reinstalling Hotchkis Center link

Reinstall the Hotchkis Center link in the same manner as stock removal. Reuse or purchase new cotter pins for all of the castle nuts. (Available at your local auto parts store). Reinstall all castle nuts and cotter pins in the center link.

# 3 Reinstall Front Sway Bar End Links

If your truck was equipped with a front sway bar, use the new end links included with your a-arms. If you do not have a front sway bar, you may remove these end links from the arms. We highly recommend the use of sway bars with this kit. You are now finished with this installation.



# 4 Front End Alignment

Suggested Front end alignment is as follows: Street:

Camber: -1° to -2.5° Caster: +6° to +9°

Race:

Camber: -2° to -3° Caster: +7° to +10°

Alignment specifications are guidelines. Attainable numbers may vary from truck to truck. Lowering springs play a heavy role in how much negative camber you can achieve. The lower the truck, the more negative camber is possible.



# Check out our other great products for your C10 Pickup at Hotchkis.net

- 19390 Sport Coil Springs (4/6 Drop)
- 11390U Tubular Upper A-Arms (Improved Camber Curve)
- 11390L Tubular Lower A-Arms (Increased Caster for Stability and Cornering Grip)
- 18390 Rear Suspension Package (Quality rear shocks and longer/lower track bar for improved rear grip)
- 22390 Sway Bar Kit (Reduce Body Roll and Enhance Vehicle Response)
- 30390 Anti-Squat Kit (Increased anti-squat for better launches)
- 70390 Front Shock Kit (Re-positions front Bilstein shocks for more travel for lowered trucks)





# Hotchkis Performance LLC Return Policy & Limited Warranty

Effective December 1, 2010 all Hotchkis products must be registered to qualify for warranty at <u>www.hotchkis.net</u> or via the mail-in warranty card, included with the product, within 30 days of the original purchase date.

#### **IMPORTANT:** This warranty supersedes all other warranties included with this product.

#### **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 for the term of 36 months (3 years) from the date of purchase of this product. 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 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 <u>www.hotchkis.net</u> 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?
- Is the return date within 36 months from the purchase date?
- 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 inquires should be sent to the following address:

#### HOTCHKIS PERFORMANCE, LLC C/O CUSTOMER SERVICE 8633 Sorensen Avenue 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 December 1, 2010. 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.