

EZ - Ride Suspension

PART NUMBER : F6250-03
1980 — 1996 FORD F150, BRONCO OR F250
CROSS MEMBER SUPPORT

Part #	Description	Qty.
F6250-03	Cross Member Support	1
716114B	7/16" x 1 1/4" Bolts	5
716WA	7/16" Flat Washers	10
716UN	7/16" Unitorque Nuts	5
716LW	7/16" Lock Washers	5
F6250-03INST	Instruction Sheet	1

Congratulations on your selection to purchase a Tuff Country EZ-Ride Suspension System. We at Tuff Country EZ-Ride Suspension are proud to offer a high quality product at the industries most competitive pricing. Thank you for your confidence in us and our product.

For a list of all parts, please refer to the Parts Description Page, at the end of the Installation Manual.

Make sure to use thread locker or locktite on all new and stock hardware associated with the installation of this suspension system.

It is the responsibility of the installers to make sure that the rear view mirror hanger is hung from the rear view mirror. The rear view mirror hanger has instructions on proper post installation procedure.

The Tuff Country EZ-Ride Suspension product safety label that is included in your kit box must be installed inside the cab in plain view of all occupants.

After the original installation, Tuff Country EZ-Ride Suspension also recommends having the alignment checked every 6 months to ensure proper tracking, proper wear on tires and front end components. Tuff Country EZ-Ride Suspension takes no responsibility for abuse, improper installation or improper suspension maintenance.

INSTALLATION MANUAL

CROSS MEMBER SUPPORT

1980 — 1996

FORD F150, BRONCO OR F250

PART # F6250-03

sj0070303rev.01

IMPORTANT CUSTOMER INFORMATION

Tuff Country EZ-Ride Suspension highly recommends that a qualified or a certified mechanic performs this installation.

If you desire to return your vehicle to stock, it is the customers responsibility to save all stock hardware.

It is the responsibility of the customer or the mechanic to wear safety glasses at all times when performing this installation.

It is the customers/installers responsibility to read and understand all steps before installation begins. OEM manual should be used as a reference guide.

This vehicles reaction and handling characteristics may differ from standard cars and/or trucks. Modifications to improve and/or enhance off road performance may raise the intended center of gravity. Extreme caution must be utilized when encountering driving conditions which may cause vehicle imbalance or loss of control. **DRIVE SAFELY!** Avoid abrupt maneuvers: such as sudden sharp turns which could cause a roll over, resulting in serious injury or death.

It is the customers responsibility to make sure that a re-torque is performed on all hardware associated with this suspension system after the first 100 miles of installation. It is also the customers responsibility to do a complete re-torque after every 3000 miles or after every off road use.

Before installation begins, Tuff Country EZ-Ride Suspension highly recommends that the installer performs a test drive on the vehicle. During the test drive, check to see if there are any uncommon sounds or vibrations. If uncommon sounds or vibrations occur on the test drive, uncommon sounds or vibrations will be enhanced once the suspension system has been installed. Tuff Country EZ-Ride Suspension highly recommends notifying the customer prior to installation to inform the customer of these issues if they exist.

LIMITED LIFETIME WARRANTY

Notice to all Tuff Country EZ-Ride Suspension customers: It is your responsibility to keep your original sales receipt! If failure should occur on any Tuff Country EZ-Ride Suspension component, your original sales receipt must accompany the warranted unit to receive warranty. Warranty will be void if the customer can not provide the original sales receipt. Do not install a body lift in conjunction with a suspension system. If a body lift is used in conjunction with any Tuff Country EZ-Ride Suspension product, your Tuff Country EZ-Ride Suspension **WARRANTY WILL BE VOID**. Tuff Country Inc. ("Tuff Country") suspension products are warranted to be free from defects in material and workmanship for life if purchased, installed and maintained on a non-commercial vehicle; otherwise, for a period of twelve (12) months, from the date of purchase and installation on a commercial vehicle, or twelve thousand (12,000) miles (which ever occurs first). Tuff Country does not warrant or make any representations concerning Tuff Country Products when not installed and used strictly in accordance with the manufacturer's instructions for such installation and operation and accordance with good installation and maintenance practices of the automotive industry. This warranty does not apply to the cosmetic finish of Tuff Country products nor to Tuff Country products which have been altered, improperly installed, maintained, used or repaired, or damaged by accident, negligence, misuse or racing. ("Racing is used in its broadest sense, and, for example, without regards to formalities in relation to prizes, competition, etc.) This warranty is void if the product is removed from the original vehicle and re-installed on that or any other vehicle. This warranty is exclusive and is in lieu of any implied warranty of merchantability, fitness for a particular purpose or other warranty of quality, whether express or implied, except the warranty of title. All implied warranties are limited to the duration of this warranty. The remedies set forth in this warranty are exclusive. This warranty excludes all labor charges or other incidental or consequential damages. Any part or product returned for warranty claim must be returned through the dealer of the distributor from whom it was purchased. Tuff Country reserves the right to examine all parts returned to it for warranty claim to determine whether or not any such part has failed because of defect in material or workmanship. The obligation of Tuff Country under this warranty shall be limited to repairing, replacing or crediting, at its option, any part or product found to be so defective. Regardless of whether any part is repaired, replaced or credited under this warranty, shipping and/or transportation charges on the return of such product must be prepaid by the customer under this warranty.

Cross Member Installation:

See Illustration for proper installation of front cross member:

1. Working on the passenger side, place a hydraulic floor jack under the stock cross member. Carefully raise up on the hydraulic floor jack until it makes contact with the stock cross member.
2. Working on the stock cross member pull the wiring harness clip off of the stock cross member. On some models, the wiring harness attaches to the side of the stock transmission, if this is the case on the vehicle that you are working on, the wiring harness does not need to be removed.
3. Working on the driver side, remove the stock bolt that connects the stock cross member to the stock frame rail. The stock bolt may be discarded. There is a support bracket that connects to the stock frame rail and the stock cross member. Remove the (2) upper stock bolts that connect the support bracket to the stock frame rail and discard the stock hardware. Also, remove the stock (2) bolts that connect the support bracket to the stock cross member and discard the stock hardware. Save the stock support bracket for later re-installation.
4. The stock transfer case connects to the stock cross member with 2 bolts. Using the stock bolt that is closer to the driver side, measure 2 3/4" towards the driver side and scribe a mark. Carefully cut the stock cross member along the mark that was scribed early in this step. The stock cross member may be discarded.
5. Remove the (2) stock nuts that connect the stock transfer case to the stock cross member. Save the stock hardware for later re-installation.
6. Locate (2) 7/16" x 1 1/4" bolts, (4) 7/16" flat washers, (2) 7/16" unitorque nuts, (2) 7/16" lock washers, the stock support bracket that was removed in step # 3. Working on the driver side, install the stock support bracket to the bottom side of the stock frame lip. Secure using the new 7/16" hardware. **Make sure to use thread locker or lock tite. Do not tighten at this point.**

8. Square up the new assembly and torque the new bolts and stock nuts to proper torque settings. Refer to the torque setting sheet at the beginning of the installation manual.

9. Remove the hydraulic floor jack from under the stock cross member.

Congratulations! Installation complete. Check and double check to make sure that all steps were performed properly. Check torque settings to make sure that all stock and new hardware has been torque to proper torque specifications

If you have any questions and or concerns about the installation, please fell free to contact Tuff Country or your local Tuff Country dealer.

Torque Settings:

5/16"	15 - 18 ft lbs.
3/8"	28 - 32 ft lbs.
7/16"	30 - 35 ft lbs.
1/2"	65 - 85 ft lbs.
9/16"	85 - 120 ft lbs.
5/8"	95 - 130 ft lbs.
3/4"	100 - 140 ft lbs.

TUFF COUNTRY SUSPENSION

INSTALLATION MANUAL
FORD F250 1980-95 4 WD
6" SUSPENSION LIFT
 Kit box #F6250-B 1980-95 (Gas)

SYSTEM PARTS CHECK LIST:

	QTY.
TCI-F6250 FRONT LEAF SPRINGS	2
PASSENGER SIDE FRONT AXLE PIVOT BRACKET	1
DRIVER SIDE FRONT AXLE PIVOT BRACKET	1
4" REAR LIFT BLOCK	2
SWAY BAR DROP BRACKETS	2
FRONT CROSSMEMBER	1
ADD-A-LEAFS - REAR	2
3/8" CENTER BOLTS	2
9/16" X 3 1/2" CAM BOLTS	2
9/16" UNI-TORQUE NUTS	2
CAM WASHERS	4
9/16" X 3 1/2" X 12 1/2" ROUND U-BOLTS-REAR	4
9/16" X 3" X 10" SQUARE U-BOLTS-FRONT	4
9/16" U-BOLT NUTS	16
9/16" U-BOLT WASHER	16
BRAKELINE BRACKETS (FRONT & REAR)	3

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***Important Notes:** Please read before beginning installation.

Read and understand all sections of instruction manual.

Check off parts list to be sure all parts are on hand. If any part is missing, you may call Tuff Country at (800) 288-2190.

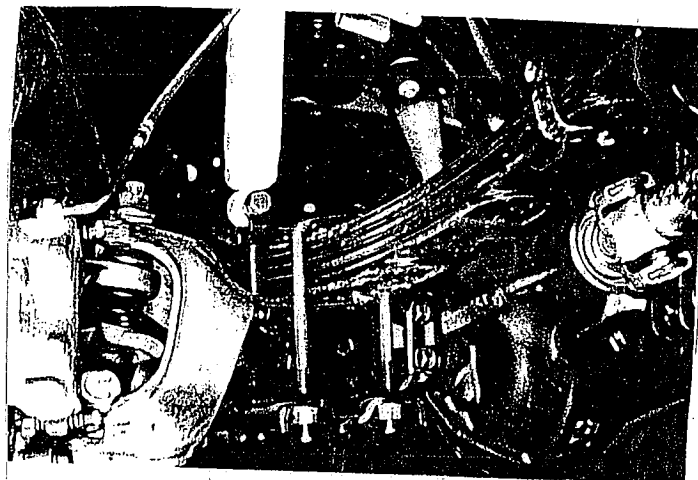
TUFF COUNTRY SUSPENSION highly recommends a qualified and or certified mechanic to perform this installation.

Front end alignment will be required.

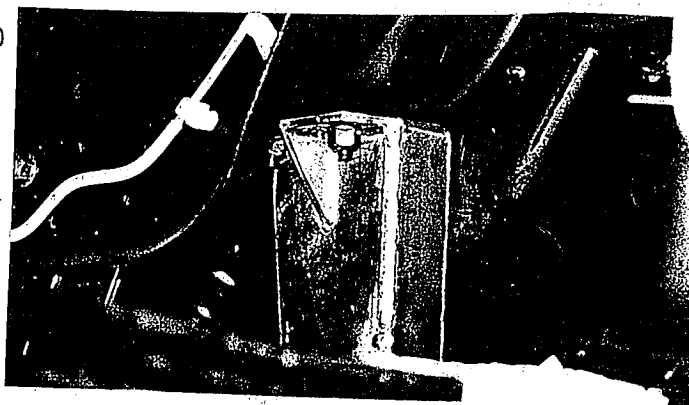
PLEASE FOLLOWING INSTRUCTIONS CAREFULLY

Front end installation.

1. To begin installation, safely raise vehicle.
2. Remove tires and wheels.
3. Starting at the front of the vehicle, remove stock shock absorbers.
4. Place floor support jacks under front axles. Now remove u-bolts.
5. Remove brake line brackets from frame rails and anti-swaybar links if equipped.
6. Lower axles enough to remove front springs.
7. Install front leaf springs, see picture #1, part #F6250
Note: Center aligning pin is offset, the shorter distance from end is placed in the forward position.
Do not fully tighten front spring shackle bolts at this point.
8. Install new front u-bolts 9/16" x 3" x 10" square. Snug u-bolts to keep center pin aligned with axle pad. **Do not fully tighten at this point.**

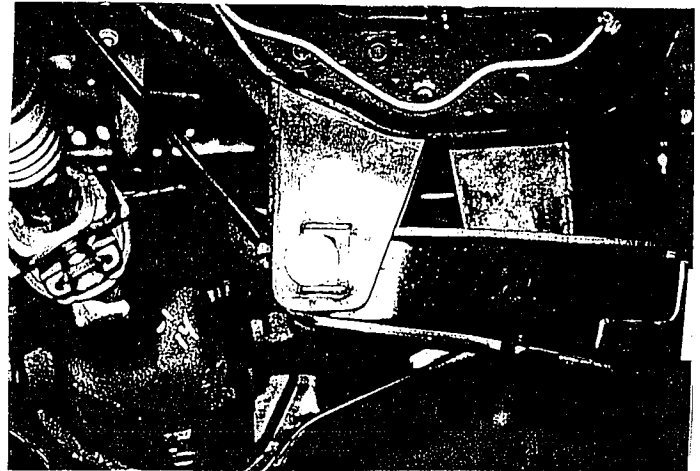


Picture #1



Picture #2

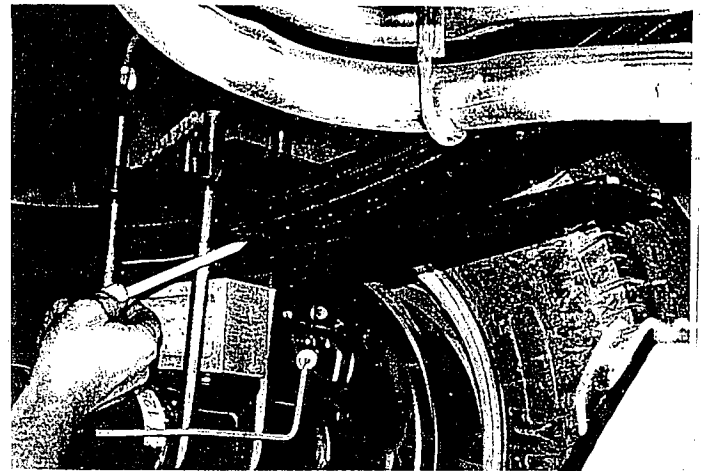
9. Remove both driver side and passenger side inner pivot brackets and save existing hardware.
10. Install new axle pivot brackets using existing hardware. **Note:** The smaller bracket operates the passenger side, which is located on the driver side of the vehicle. And the larger bracket operates the driver side, which is located on the passenger side of vehicle. See picture #2, page #1
11. Install axles into the new axle pivot brackets on both axles using new adjustable cam bolts (9/16" x 3 1/2") and new cam washers. Secure with 9/16" uni-torque nut. For now adjust cam washer to center of adjustment and tighten. See picture #3
12. Reconnect brake line bracket to frame rail. Bend brake line bracket down to allow more travel.



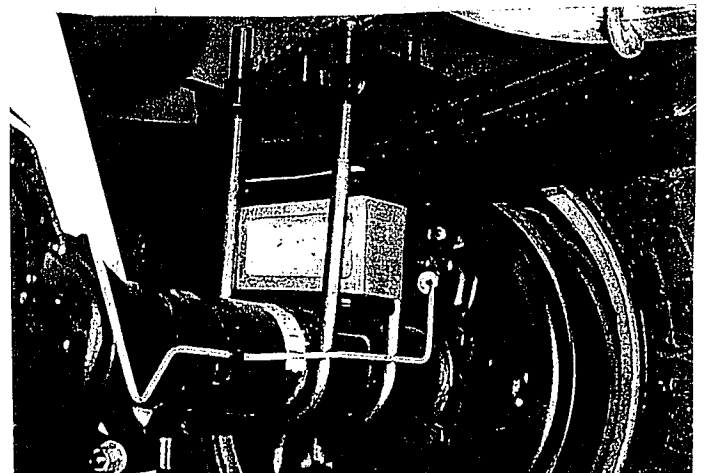
Picture #3

Rear end installation: Note: 1980-95 will use add-a-leaves only. 1996-up will use 3" blocks and add-a-leaves.

1. Place support jack stands under rear axle. Help support drive shaft with bungee cord or strap.
2. Remove stock shock absorbers and swaybar if equipped.
3. Remove brake line junction block and vent line from axle housing. Now remove stock u-bolts.
4. Rear add-a-leaf installation: Tighten C-clamp on leaf springs. Lower axle enough to remove stock center bolt. Remove center bolt using vice grips and wrench. Remove bottom stock overload spring. Install add-a-leaf. **Note:** center pin hole is offset, the shorter end is placed in the forward position. Install the new add-a-leaf #TCI-R22 between the large flat stock overload spring and the original spring pack. Clamp springs together, insert new center bolt (cut off excess bolt with hacksaw.) See picture #4.
5. Rear block installation: Lower axle enough to allow installation of 3" block. When installing blocks the tapered end will go toward the front of vehicle and the steel pin will insert into axle. Raise axle so that the stock springs insert in to hole on the top of block. Secure with new u-bolts (9/16" x 3 1/2" x 12 1/2"). See Picture #5
6. Reinstall brake line junction block and vent line to axle housing. Install new shock absorbers. Front and rear. Re-install swaybar.
7. **Final inspection:**
 - *Check all hardware to be sure all bolts and nuts are torque to specs.
 - *After wheels and tires are in place, loosen tire rod adjustment sleeves until wheels straighten, then tighten.
 - *Take directly to alignment shop for proper alignment.



Picture #4



Picture #5

TUFF COUNTRY SUSPENSION

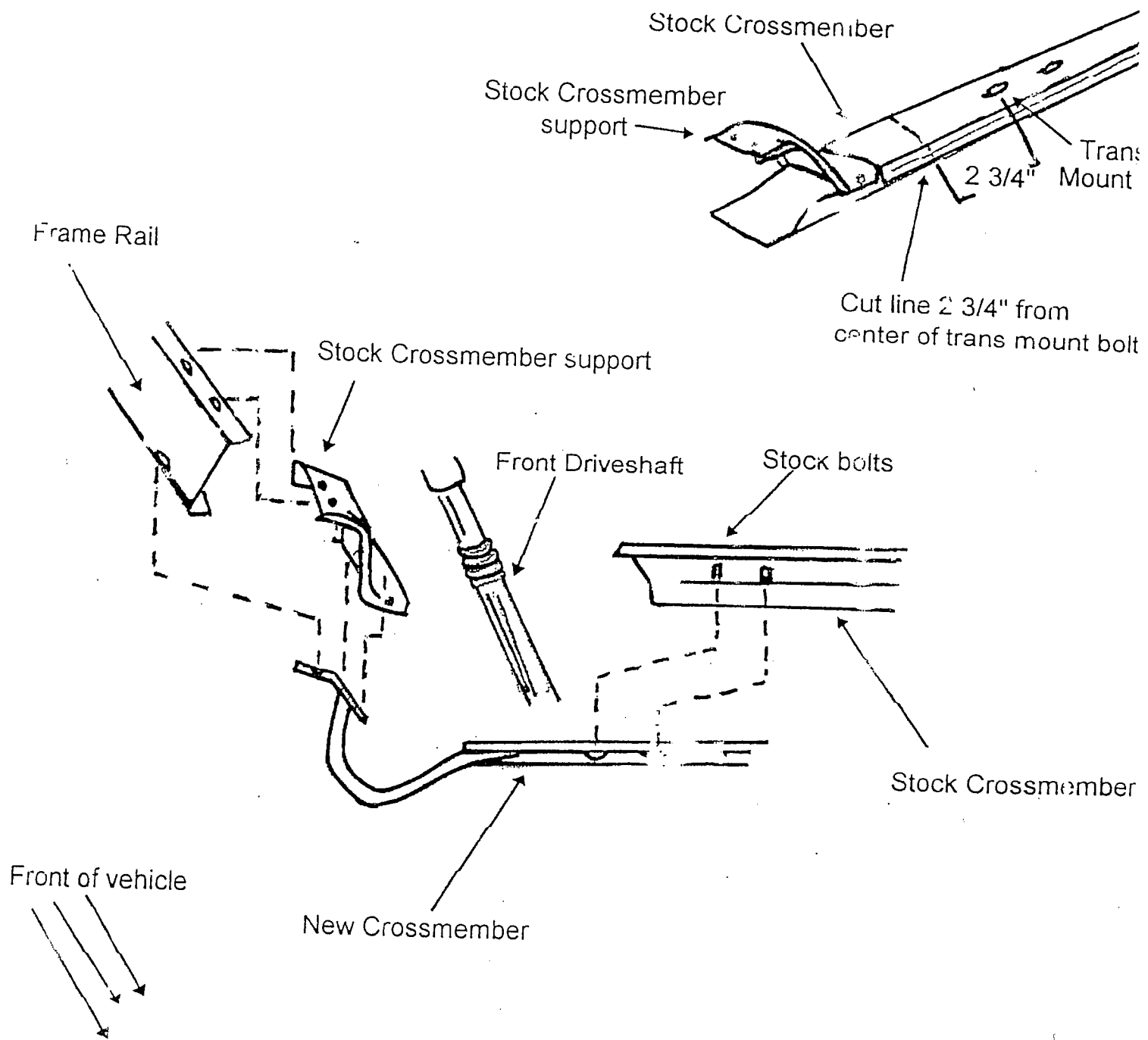
INSTALLATION MANUAL
FORD F250 1980-95 4 WD
Crossmember
6" SUSPENSION LIFT
Kit box #F6250-B 1980-95 (Gas)

Crossmember installation should be performed before any other installation procedures.

1. Transfer case crossmember: Bracket for transfer case crossmember to frame:
Support the bottom of the stock crossmember with a jack placed just to the passenger side of the transfer case mount.
2. The transmission wiring harness is attached to the crossmember via a snap on clip. Pull the clip and harness from the crossmember. Some models have the harness attached to the side of the transmission and will not need re-locating.
3. Remove the bolts that attach the driver side of the crossmember to the frame save upper section for re-installation.
4. Cut the crossmember, as shown in the first illustration, then discard the driver side section.
5. Loosely attach the frame bracket to the bottom frame rail, as shown in diagram with (2) 7/16" x 1 1/4" bolts. Use flat washers at the slotted holes.
6. Remove the two nuts that attach the transfer case mount to the stock crossmember.
7. Position Tuff Country new crossmember as shown in illustration. This piece mounts to the inside of stock frame support, and on top of the frame rails bottom lip. Mate the two crossmembers together and loosely attach the two transfer case mounts nuts on to the mount studs.
8. Loosely attach the new crossmember to the frame bracket with (2) 7/16" x 1 1/4" bolts. Use flat washers at the slotted holes.
9. Insert the single 7/16" bolts pointing up through the bottom lip of the frame rail, then through the single hole in the bottom flange to the new crossmember. Do not tighten yet.
10. Square up the assembly then torque all nuts and bolts related to these steps.

**CONTINUE WITH SUSPENSION INSTALLATION
NEXT PAGE.**

Crossmember Illustration



TUFF COUNTRY SUSPENSION

INSTALLATION MANUAL
FORD F250 1980-95 4 WD
6" SUSPENSION LIFT
Kit box #F6250-B 1980-95 (Gas)

SYSTEM PARTS CHECK LIST:

	QTY.
TCI-F6250 FRONT LEAF SPRINGS	2
PASSENGER SIDE FRONT AXLE PIVOT BRACKET	1
DRIVER SIDE FRONT AXLE PIVOT BRACKET	1
4" REAR LIFT BLOCK	2
SWAY BAR DROP BRACKETS	2
FRONT CROSSMEMBER	1
ADD-A-LEAFS - REAR	2
3/8" CENTER BOLTS	2
9/16" X 3 1/2" CAM BOLTS	2
9/16" UNI-TORQUE NUTS	2
CAM WASHERS	4
9/16" X 3 1/2" X 12 1/2" ROUND U-BOLTS-REAR	4
9/16" X 3" X 10" SQUARE U-BOLTS-FRONT	4
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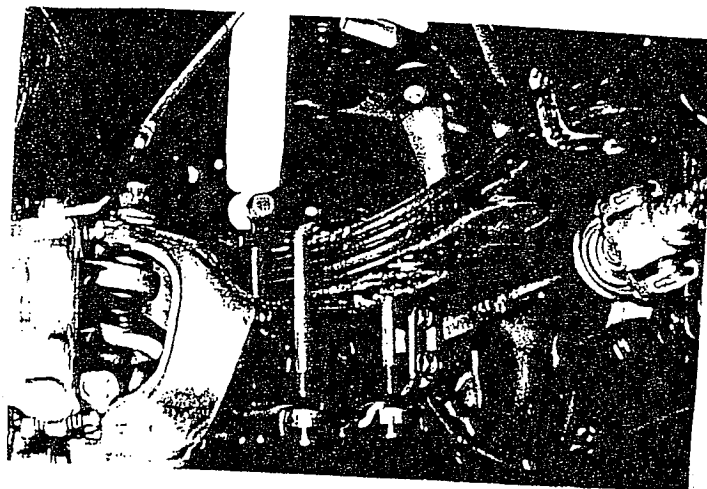
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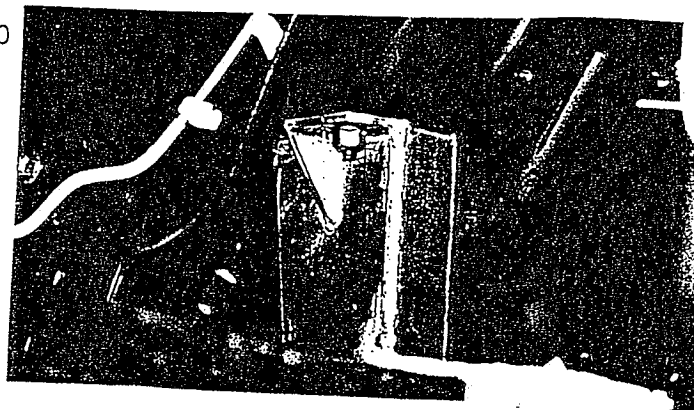
PLEASE FOLLOWING INSTRUCTIONS CAREFULLY

Front end installation.

1. To begin installation, safely raise vehicle.
2. Remove tires and wheels.
3. Starting at the front of the vehicle, remove stock shock absorbers.
4. Place floor support jacks under front axles. Now remove u-bolts.
5. Remove brake line brackets from frame rails and anti-swaybar links if equipped.
6. Lower axles enough to remove front springs.
7. Install front leaf springs, see picture #1, part #F6250
Note: Center aligning pin is offset, the shorter distance from end is placed in the forward position.
Do not fully tighten front spring shackle bolts at this point.
8. Install new front u-bolts 9/16" x 3" x 10" square. Snug u-bolts to keep center pin aligned with axle pad. **Do not fully tighten at this point.**



Picture #1



Picture #2

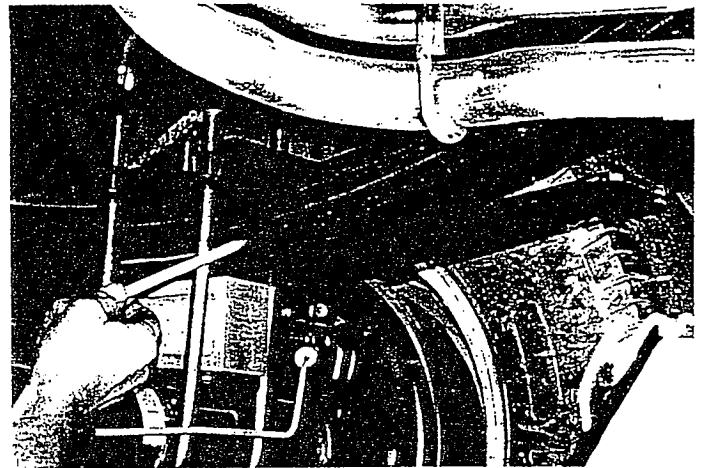
9. Remove both driver side and passenger side inner pivot brackets and save existing hardware.
10. Install new axle pivot brackets using existing hardware. **Note:** The smaller bracket operates the passenger side, which is located on the driver side of the vehicle. And the larger bracket operates the driver side, which is located on the passenger side of vehicle. See picture #2, page #1
11. Install axles into the new axle pivot brackets on both axles using new adjustable cam bolts (9/16" x 3 1/2") and new cam washers. Secure with 9/16" uni-torque nut. For now adjust cam washer to center of adjustment and tighten. See picture #3
12. Reconnect brake line bracket to frame rail. Bend brake line bracket down to allow more travel.



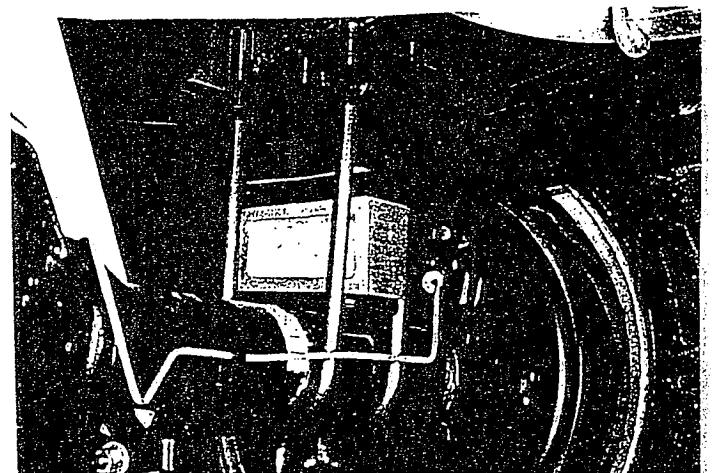
Picture #3

Rear end installation: Note: 1980-95 will use add-a-leafs only. 1996-up will use 3" blocks and add-a-leafs.

1. Place support jack stands under rear axle. Help support drive shaft with bungee cord or strap.
2. Remove stock shock absorbers and swaybar if equipped.
3. Remove brake line junction block and vent line from axle housing. Now remove stock u-bolts.
4. Rear add-a-leaf installation: Tighten C-clamp on leaf springs. Lower axle enough to remove stock center bolt. Remove center bolt using vice grips and wrench. Remove bottom stock overload spring. Install add-a-leaf. **Note:** center pin hole is offset, the shorter end is placed in the forward position. Install the new add-a-leaf #TCI-R22 between the large flat stock overload spring and the original spring pack. Clamp springs together, insert new center bolt (cut off excess bolt with hacksaw.) See picture #4.
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6. Reinstall brake line junction block and vent line to axle housing. Install new shock absorbers. Front and rear. Re-install swaybar.
7. **Final inspection:**
 - *Check all hardware to be sure all bolts and nuts are torque to specs.
 - *After wheels and tires are in place, loosen tire rod adjustment sleeves until wheels straighten, then tighten.
 - *Take directly to alignment shop for proper alignment.



Picture #4



Picture #5

TUFF COUNTRY SUSPENSION

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FORD F250 1980-95 4 WD
Crossmember
6" SUSPENSION LIFT
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2. The transmission wiring harness is attached to the crossmember via a snap on clip. Pull the clip and harness from the crossmember. Some models have the harness attached to the side of the transmission and will not need re-locating.
3. Remove the bolts that attach the driver side of the crossmember to the frame save upper section for re-installation.
4. Cut the crossmember, as shown in the first illustration, then discard the driver side section.
5. Loosely attach the frame bracket to the bottom frame rail, as shown in diagram with (2) 7/16" x 1 1/4" bolts. Use flat washers at the slotted holes.
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10. Square up the assembly then torque all nuts and bolts related to these steps.

**CONTINUE WITH SUSPENSION INSTALLATION
NEXT PAGE.**