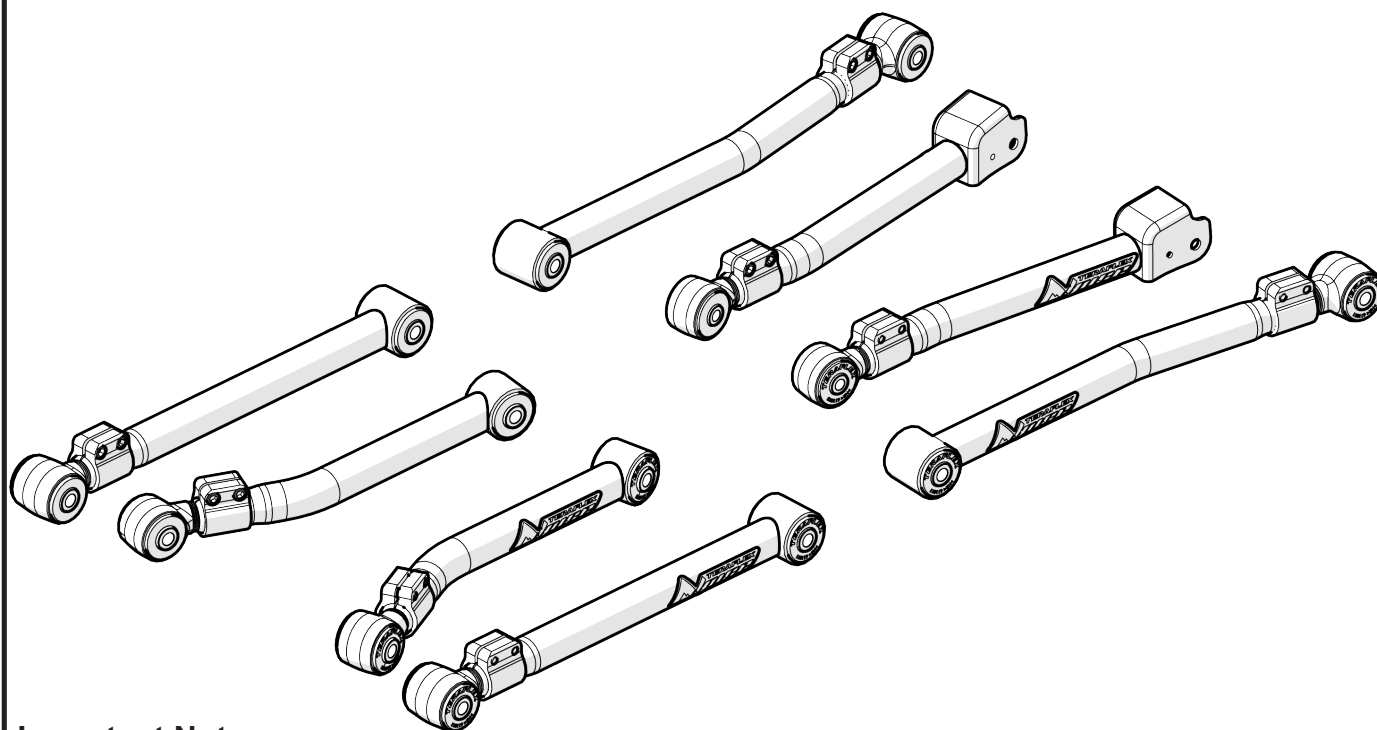




# JL ALPINE SHORT CONTROL ARMS

# 1416610



## Important Notes:

Prior to beginning this install, or any installation, read the instructions thoroughly to familiarize yourself with the required steps. Evaluate if you are experienced and capable to personally perform these modifications. A factory service manual should be used in conjunction with these installation instructions.

This product will change the highway handling characteristics of your vehicle, exercise caution. After altering the suspension it is always advisable to have an alignment done by a competent 4 wheel drive shop or by an alignment shop that is experienced with lifted 4 wheel drive vehicles.

Refer to the parts list to ensure that all necessary components and hardware has been included. If any parts are missing please contact your local TeraFlex dealer for assistance.

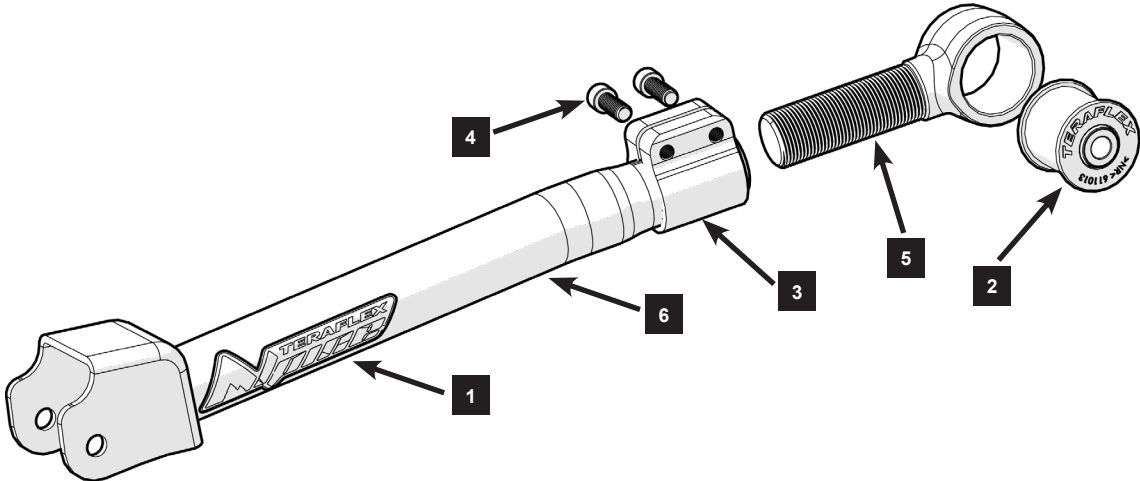
**When reinstalling OEM hardware, refer to the torque specs given in the Factory Service Manual.**

## Tools Needed:

- Metric Sockets and Open End Wrenches
- Torque Wrench
- Factory Service Manual
- General Mechanics Tools

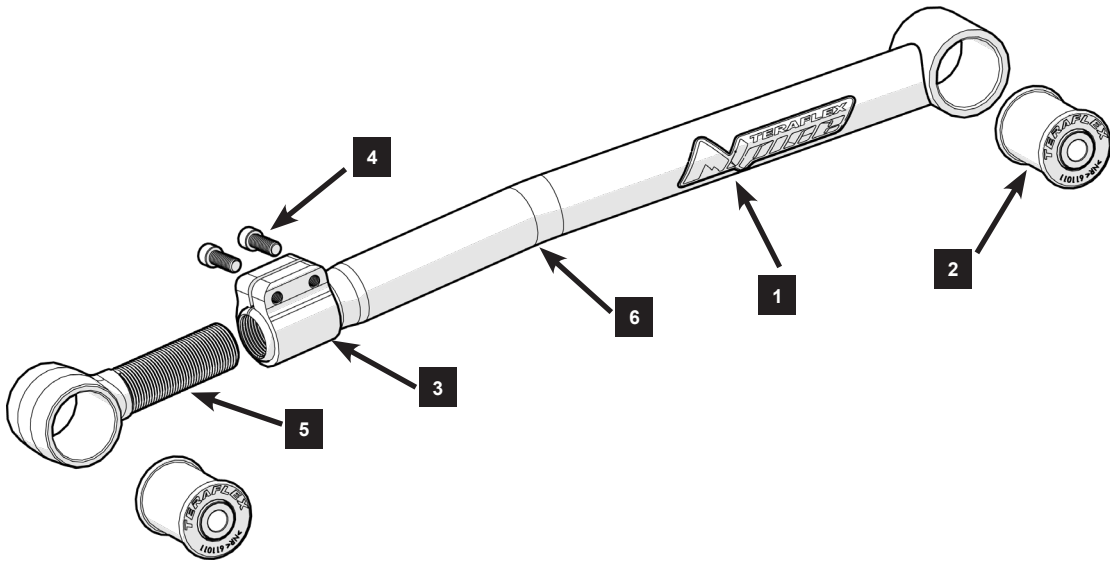
## Maintenance Note:

After the first 300 miles and every 3,000 miles after that, re-torque all the suspension components and bolts.



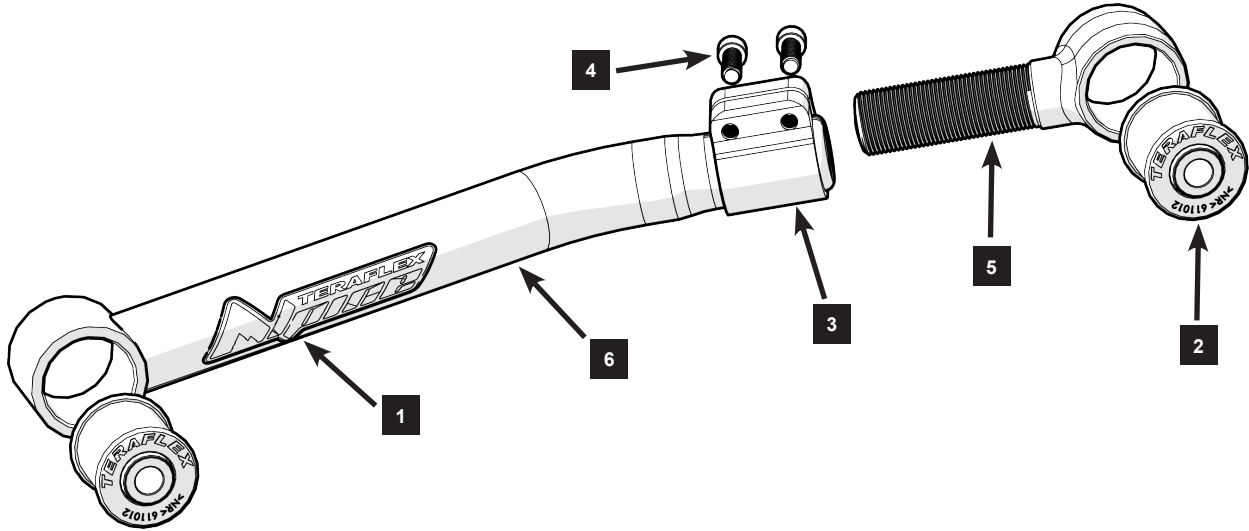
Parts List - 1416520 Front Upper HD Adjustable Control Arms

Item #	Part No.	Description	QTY
1	95-01-003-001	Sticker, Teraflex, Alpine Arm, Polycarbonate	1
2	611014	Front Upper JL Control Arm Bushing Factory Replacement	1
3	107105	Alpine Control Arm Aluminum Clamp	1
4	414	3/8"-16x1" Socket Head Cap Screw	2
5	116110	JL Front Upper Forged Bushing Eyelet	1
6	07-01-001-005	Control Arm, Alpine / Jeep JL, Front / Upper / Left Assembly	1
	07-01-001-006	Control Arm, Alpine / Jeep JL, Front / Upper / Right Assembly	

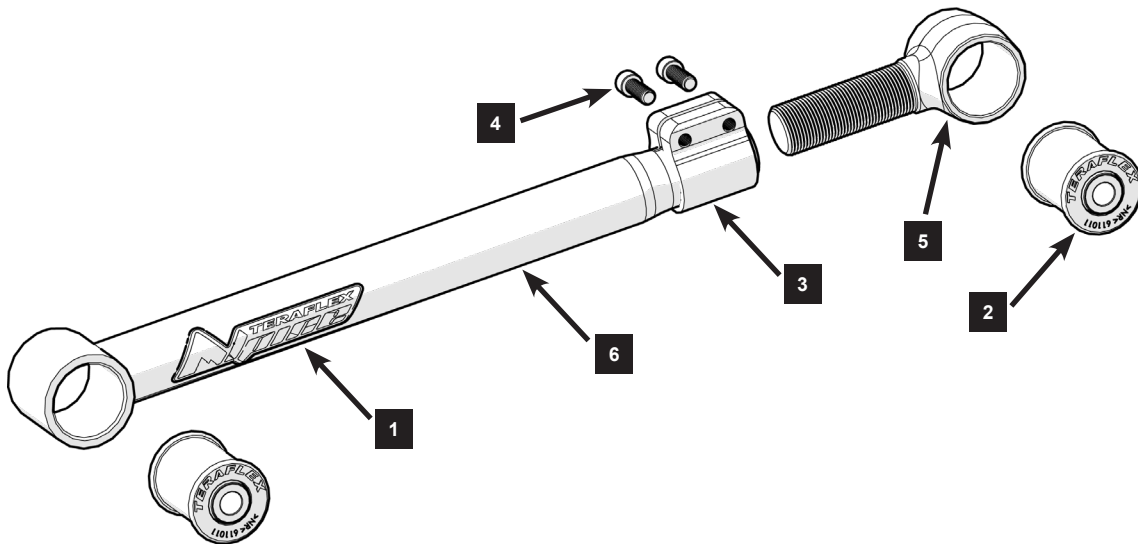


Parts List - 1416500 Front Lower HD Adjustable Control Arms

Item #	Part No.	Description	QTY
1	95-01-003-001	Sticker, Teraflex, Alpine Arm, Polycarbonate	1
2	09-01-201-001	Front Lower JL Control Arm Bushing Factory Replacement	2
3	107105	Alpine Control Arm Aluminum Clamp	1
4	414	3/8"-16x1" Socket Head Cap Screw	2
5	116110	JL Front Upper Forged Bushing Eyelet	1
6	07-01-001-001	Control Arm, Alpine / Jeep JL, Front / Lower / Left Assembly	1
	07-01-001-002	Control Arm, Alpine / Jeep JL, Front / Lower / Right Assembly	



Parts List - 1416560 Rear Upper HD Adjustable Control Arms			
Item #	Part No.	Description	QTY
1	95-01-003-001	Sticker, Teraflex, Alpine Arm, Polycarbonate	1
2	611012	Rear Upper JL Control Arm Bushing	2
3	107105	Alpine Control Arm Aluminum Clamp	1
4	414	3/8"-16x1" Socket Head Cap Screw	2
5	116130	JL Front Upper Forged Bushing Eyelet	1
6	07-01-001-011	Control Arm, Alpine / Jeep JL , Rear / Upper / Left Assembly	1
	07-01-001-012	Control Arm, Alpine / Jeep JL, Rear / Upper / Right Assembly	



Parts List - 1415540 Rear Lower HD Adjustable Control Arms			
Item #	Part No.	Description	QTY
1	95-01-003-001	Sticker, Teraflex, Alpine Arm, Polycarbonate	1
2	611011	JL / JK Lower Control Arm Bushing	2
3	107105	Alpine Control Arm Aluminum Clamp	1
4	414	3/8"-16x1" Socket Head Cap Screw	2
5	116110	JL / JK Rear Lower Forged Bushing Eyelet	1
6	141542	Alpine JL / JK Rear Lower Driver HD Adjustable Control Arm	1
	141552	Alpine JL / JK Rear Lower Passenger HD Adjustable Control Arm	

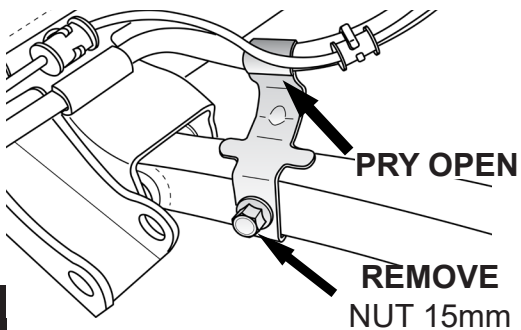
INSTALLATION OF THE CONTROL ARMS IS BEST DONE WITH ALL 4 TIRES OF THE JEEP ON THE GROUND. IF YOU PREFER TO RAISE THE JEEP FOR INSTALLATION REFER TO YOUR FACTORY SERVICE MANUAL FOR SAFE LIFTING LOCATIONS AND PROCEDURES.

**\*NOTE: DO NOT REMOVE MORE THAN TWO CONTROL ARMS AT A TIME\***

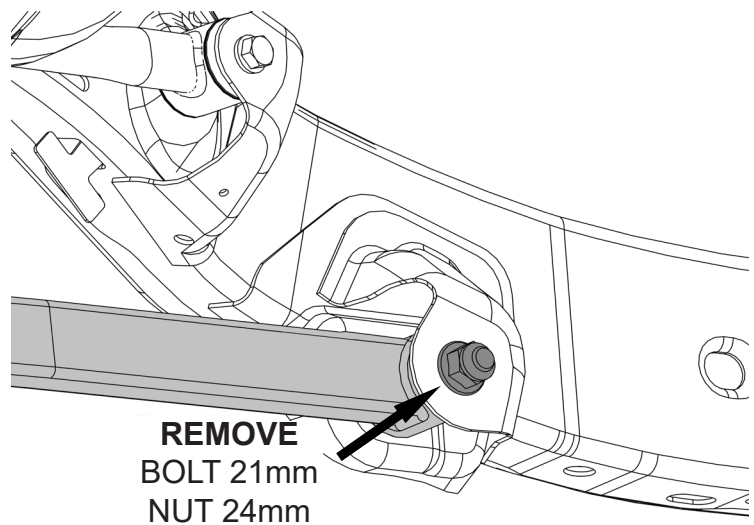
## FRONT LOWER CONTROL ARMS

REMOVE THE FRAME SIDE LOWER CONTROL ARM BOLT

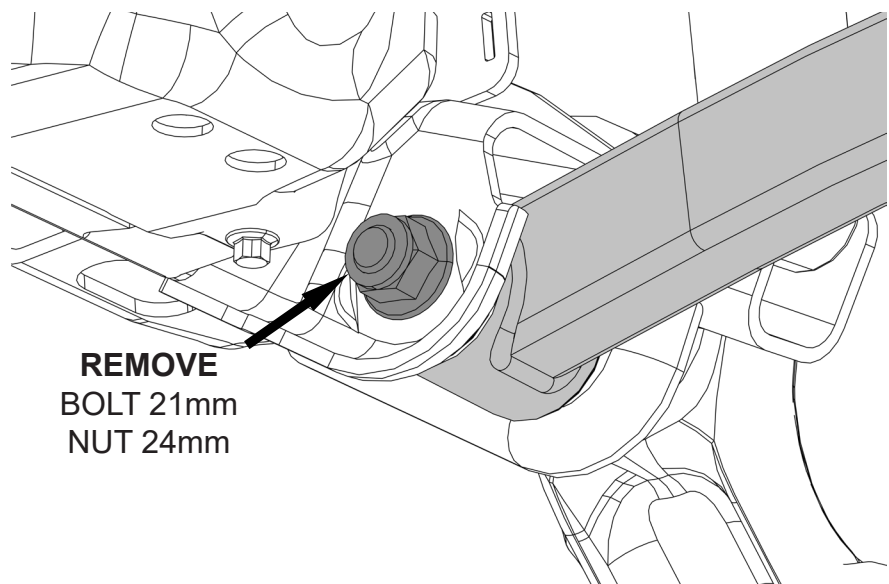
REMOVE AND DISCARD THE BRAKE LINE BRACKETS FROM THE CONTROL ARMS AND BRAKE LINES



1



REMOVE THE AXLE SIDE LOWER CONTROL ARM BOLT

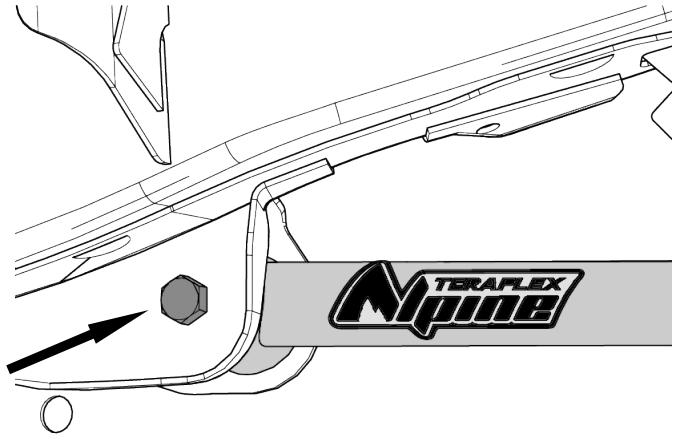


2

**INSTALL THE FIXED END OF THE ALPINE CONTROL ARM TO THE FRAME WITH THE STICKER FACING OUT. LEAVE FINGER TIGHT.**

**DO NOT TORQUE THE CONTROL ARMS TIGHT UNTIL THE END OF THE INSTALLATION.**

**TORQUE**  
BOLT 21mm  
NUT 24mm  
103 Ft Lbs + 145°



**3**

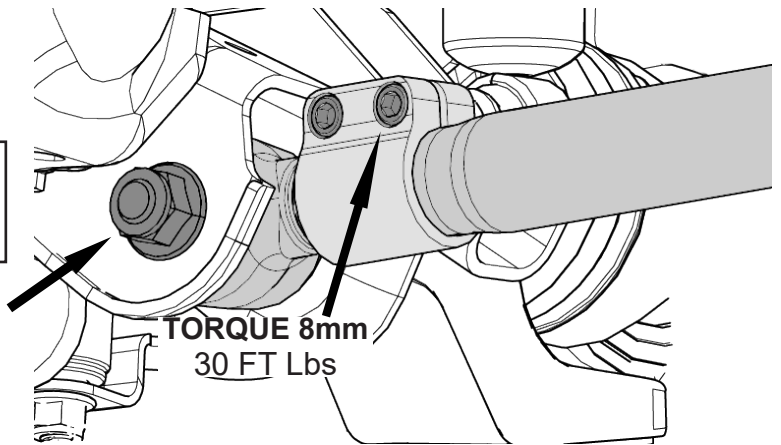
**LOOSEN THE CLAMP AND EXTEND THE CONTROL ARM TO THE RECOMMENDED LENGTH. INSTALL THE CONTROL ARM INTO THE AXLE MOUNT.**

**REFER TO PAGE 10 FOR RECOMMENDED CONTROL ARM LENGTHS.**

**DO NOT TORQUE THE CONTROL ARMS TIGHT UNTIL THE END OF THE INSTALLATION.**

**TORQUE**  
BOLT 21mm  
NUT 24mm  
103 Ft Lbs + 145°

**TORQUE 8mm**  
30 FT Lbs

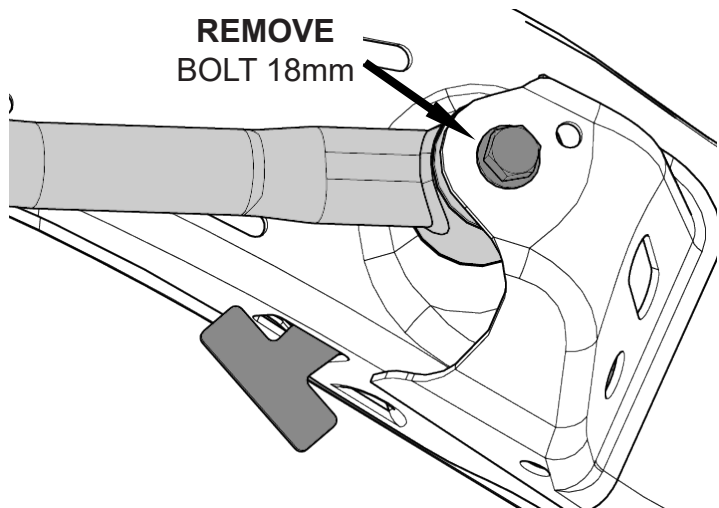


**4**

### **FRONT UPPER CONTROL ARMS**

**REMOVE THE FRAME SIDE UPPER CONTROL ARM HEAT SHEILD AND BOLT**

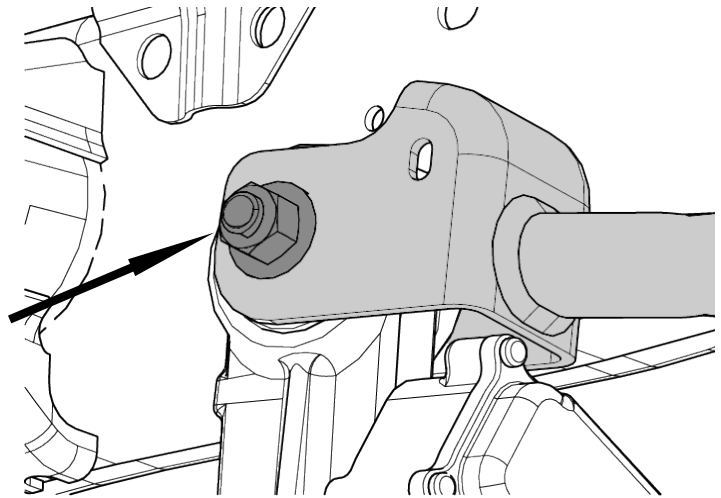
**REMOVE**  
BOLT 18mm



**5**

**REMOVE THE AXLE SIDE UPPER CONTROL ARM BOLT**

**REMOVE  
BOLT 18mm  
NUT 18mm**

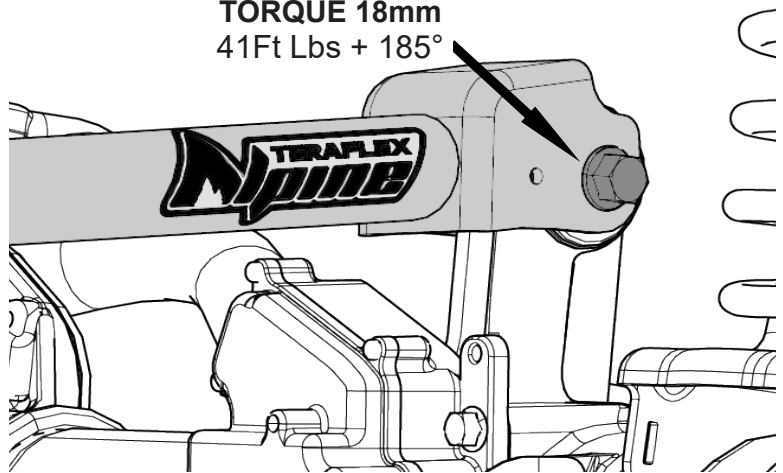


**6**

**INSTALL THE FIXED END OF THE ALPINE CONTROL ARM TO THE AXLE WITH THE STICKER FACING OUT. LEAVE FINGER TIGHT.**

**DO NOT TORQUE THE CONTROL ARMS TIGHT UNTIL THE END OF THE INSTALLATION.**

**TORQUE 18mm  
41Ft Lbs + 185°**



**7**

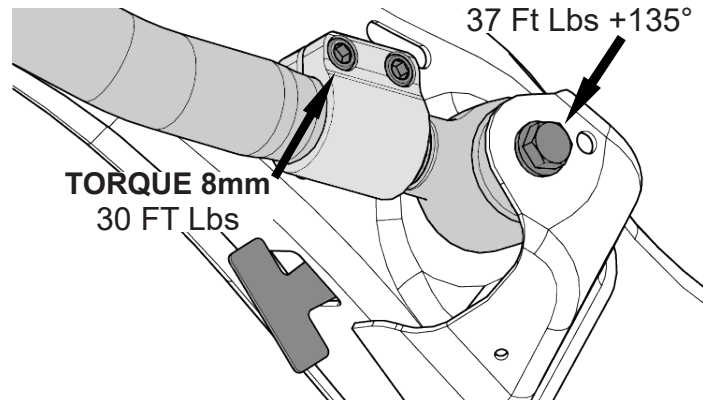
**LOOSEN THE CLAMP AND EXTEND THE CONTROL ARM TO THE RECOMMENDED LENGTH. INSTALL THE CONTROL ARM INTO THE FRAME MOUNT WITH THE HEAT SHIELD.**

**REFER TO PAGE 10 FOR RECOMMENDED CONTROL ARM LENGTHS.**

**DO NOT TORQUE THE CONTROL ARMS TIGHT UNTIL THE END OF THE INSTALLATION.**

**TORQUE 18mm  
37 Ft Lbs +135°**

**TORQUE 8mm  
30 FT Lbs**



**8**

## REAR LOWER CONTROL ARMS

### REMOVE THE FRAME SIDE LOWER CONTROL ARM BOLT

9

REMOVE  
BOLT 21mm  
NUT 21mm



### REMOVE THE AXLE SIDE LOWER CONTROL ARM BOLT

10

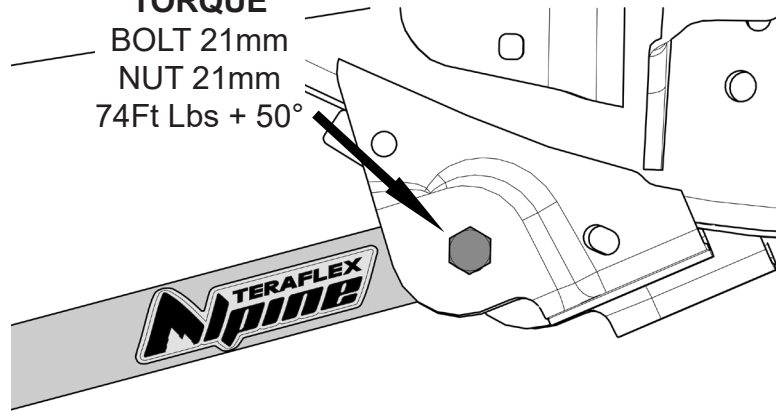
REMOVE  
BOLT 21mm  
NUT 21mm



INSTALL THE FIXED END OF THE ALPINE CONTROL ARM TO THE FRAME WITH THE STICKER FACING OUT. LEAVE FINGER TIGHT.

DO NOT TORQUE THE CONTROL ARMS TIGHT UNTIL THE END OF THE INSTALLATION.

TORQUE  
BOLT 21mm  
NUT 21mm  
74Ft Lbs + 50°

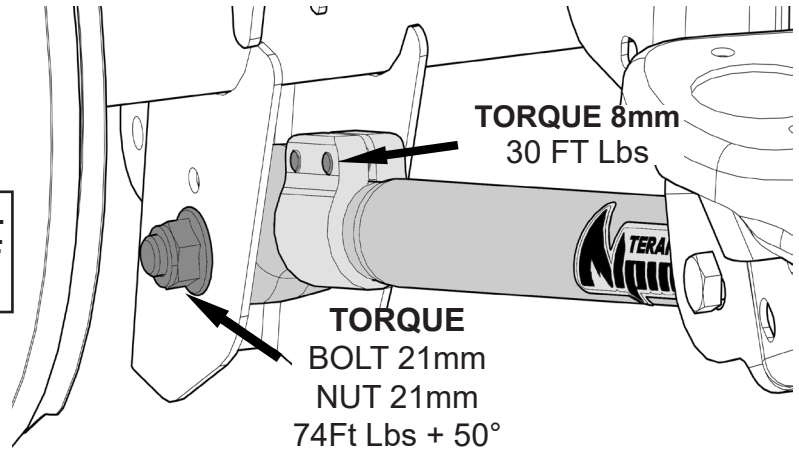


11

**LOOSEN THE CLAMP AND EXTEND THE CONTROL ARM TO THE RECOMMENDED LENGTH. INSTALL THE CONTROL ARM INTO THE AXLE MOUNT.**

**REFER TO PAGE 10 FOR RECOMENDED CONTROL ARM LENGTHS.**

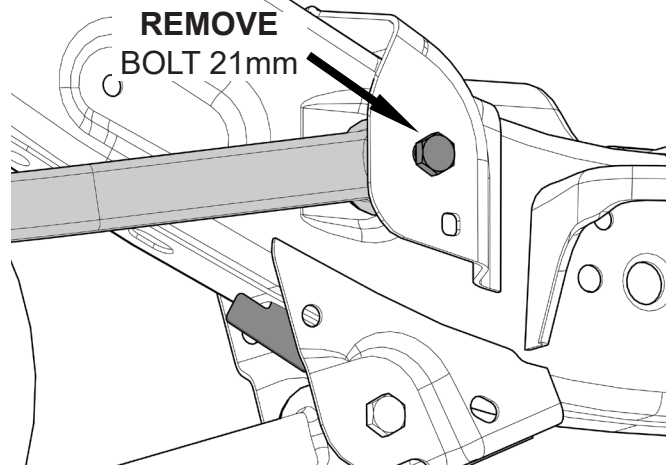
**DO NOT TORQUE THE CONTROL ARMS TIGHT UNTIL THE END OF THE INSTALLATION.**



**12**

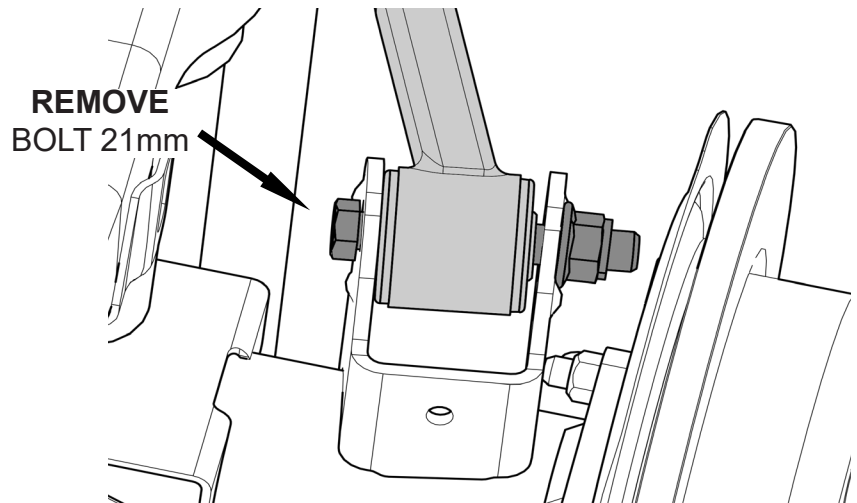
### **REAR UPPER CONTROL ARMS**

**REMOVE THE FRAME SIDE UPPER CONTROL ARM BOLT**



**13**

**REMOVE THE AXLE SIDE UPPER CONTROL ARM BOLT**

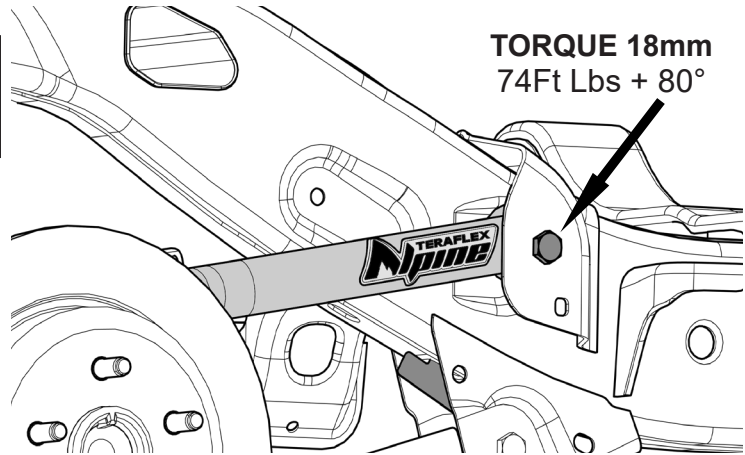


**14**

INSTALL THE FIXED END OF THE ALPINE CONTROL ARM TO THE FRAME WITH THE STICKER FACING OUT. LEAVE FINGER TIGHT.

DO NOT TORQUE THE CONTROL ARMS TIGHT UNTIL THE END OF THE INSTALLATION.

TORQUE 18mm  
74Ft Lbs + 80°



15

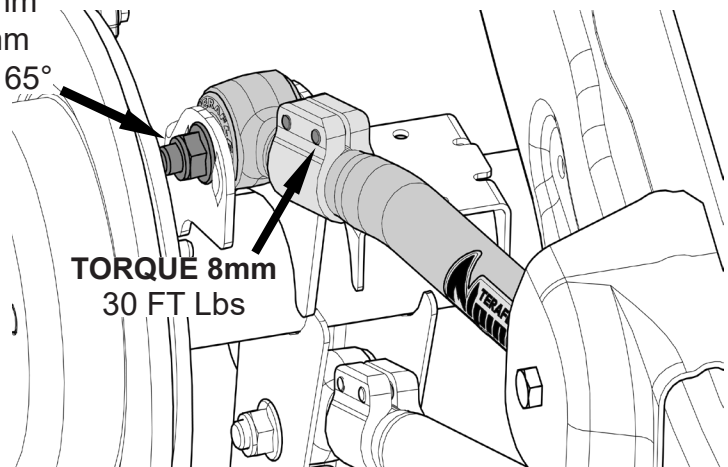
LOOSEN THE CLAMP AND EXTEND THE CONTROL ARM TO THE RECOMMENDED LENGTH. INSTALL THE CONTROL ARM INTO THE AXLE MOUNT.

TORQUE  
BOLT 21mm  
NUT 21mm  
74Ft Lbs + 65°

REFER TO PAGE 10 FOR  
RECOMMENDED CONTROL  
ARM LENGTHS.

DO NOT TORQUE THE CONTROL  
ARMS TIGHT UNTIL THE END OF  
THE INSTALLATION.

TORQUE 8mm  
30 FT Lbs



16

## RECOMMENDED CONTROL ARM STARTING LENGTHS

**NOTE: THESE ARE ONLY RECOMMENDED STARTING LENGTHS!! EACH JEEP IS DIFFERENT AND MAY NEED TO HAVE THE CONTROL ARM LENGTHS CHANGED FOR PROPER FUNCTION AND SAFE DRIVING.**

		Lift Height					
		2.5" Lift		3.5" Lift		4.5" Lift	
		All 8 Arms	Single Pair	All 8 Arms	Single Pair	All 8 Arms	Single Pair
Control Arms	Front Lower	24 1/8"	24 1/4"	24 5/16"	24 7/16"	24 1/2"	24 5/8"
	Front Upper	20"	20 1/8"	20 3/16"	20 1/8"	20 3/8"	20 1/8"
	Rear Lower	20 1/4"	19 5/8"	20 7/16"	19 13/16"	20 5/8"	20"
	Rear Upper	17 5/8"	17 3/8"	17 13/16"	17 3/8"	18"	17 3/8"

**NOTE:**

- \* IF USING FRONT DROP BRACKETS (PN# 1938125), USE THE FACTORY ARM MEASUREMENT AS A STARTING LENGTH FOR THE FRONT LOWER ARMS.
- \* IF INSTALLING A SINGLE PAIR OF ARMS TO CORRECT CASTER AND PINION ANGLE, WE RECOMMEND REPLACING THE LOWER ARMS.