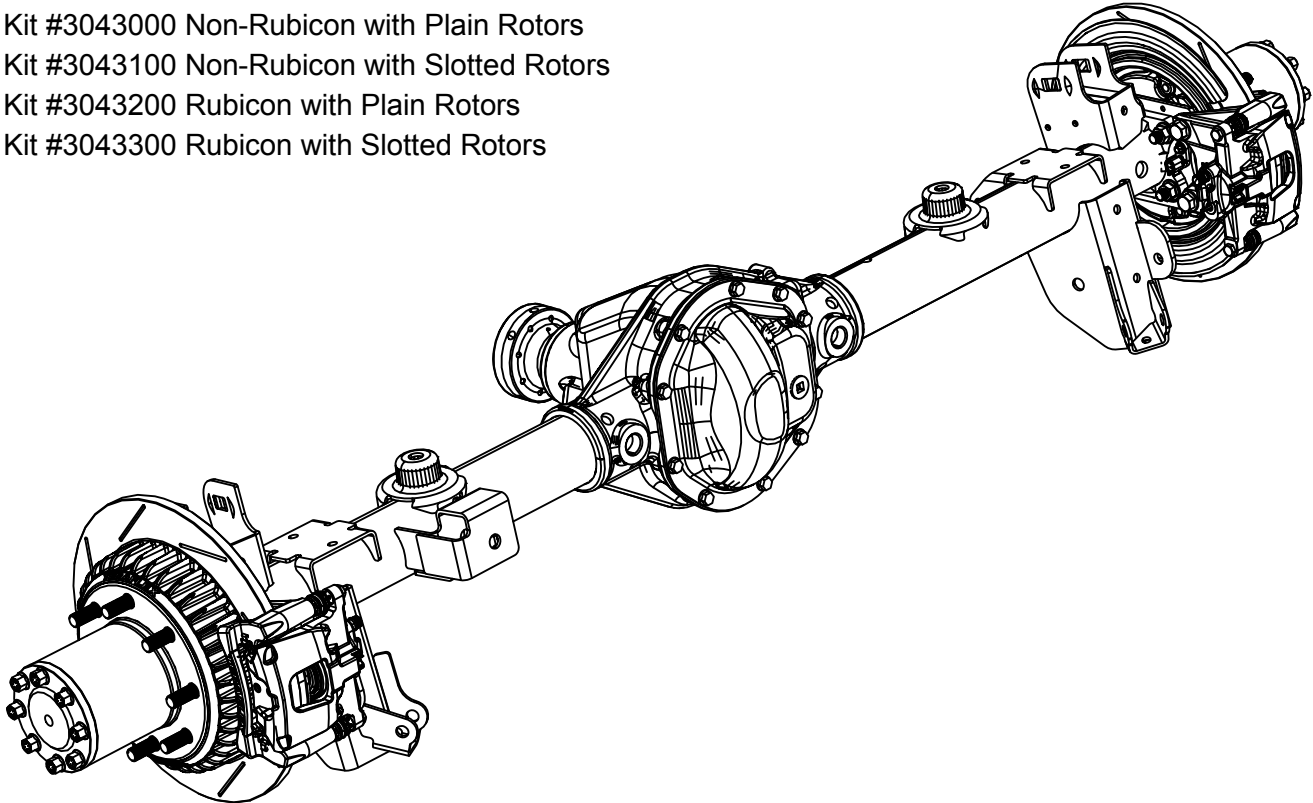




# JK Rear Dana 44 Full Float Conversion

www.teraflex.com

- Kit #3043000 Non-Rubicon with Plain Rotors
- Kit #3043100 Non-Rubicon with Slotted Rotors
- Kit #3043200 Rubicon with Plain Rotors
- Kit #3043300 Rubicon with Slotted Rotors



## Important Notes:

Prior to beginning this or any installation read these instructions to familiarize yourself with the required steps and 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 kit requires welding. If you have any doubts about your welding ability, a certified welder is always a good option.

**This kit requires new wheels with an 8 on 6.5" bolt pattern.**

This kit is fully compatible with right hand drive JK's.

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.

## Tools needed:

- Basic mechanics tool set
- Welder
- One Ton Spindle Nut Socket
- 1/2" drill bit and drill

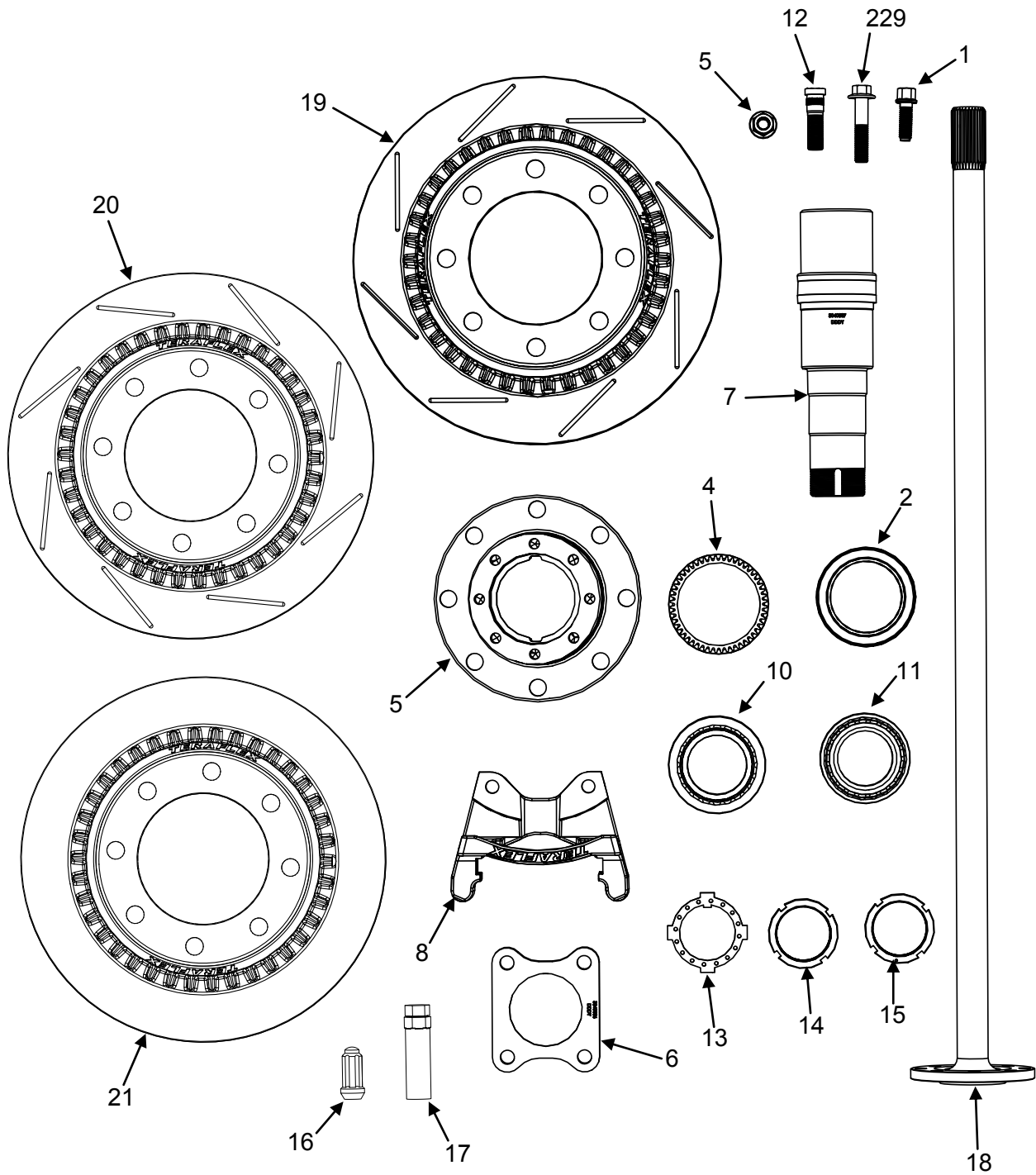


## Non-Rubicon Dana 44

Parts List- Kit #3043000- Non Rubicon - Non Slotted Rotors			
Item Number	Part Number	Description	Quantity
1	1124	Bolt 7/16"-14 x1.375" Hex	16
2	2000005	Full Float Hub Seal	2
3	204	Nut M12x1.75 Serrated Flange Distorted Thread Lock	8
4	204450	JK Full Float Hub Tone Ring 52 Teeth Rear	2
5	3000866	Full Float Rear Hub 8 on 6.5" Bolt Pattern	2
6	3040836	Full Float Axle Spindle Flange Retainer	2
7	3040837	Full Float Rear Axle Spindle JK	2
8	304504	JK Rear Big Brake Anchor Bracket for Factory Caliper	2
9	408	Bolt M12-1.75 x 60mm Hex Grade 8.8	8
10	601449	Bearing Cup and Cone CRD 60 Full Float Outer	2
11	601455	Bearing Set38 CRD60 Full Float Outer	2
12	610218	Wheel Stud 9/16"-18 x 2" Long	16
13	8371	Lock Washer Front Axle Spicer #621028	2
14	8372	Nut Spindle Dana 60 Outer	2
15	8373	Nut Spindle Dana 60 Inner (With pin)	2
16	125541	9/16"-18 Splined Lug Nuts	16
17	125542	9/16" Lug Nut Adapter Key	16
18	999236	Full Float Axle Shaft D44 Non-Rubicon 30 Spline	2
21	4304408	JK Rear Plain 13.5" Big Brake Rotor 8 on 6.5"	2

Parts List- Kit #3043100- Non Rubicon - Slotted Rotors			
Item Number	Part Number	Description	Quantity
1	1124	Bolt 7/16"-14 x1.375" Hex	16
2	2000005	Full Float Hub Seal	2
3	204	Nut M12x1.75 Serrated Flange Distorted Thread Lock	8
4	204450	JK Full Float Hub Tone Ring 52 Teeth Rear	2
5	3000866	Full Float Rear Hub 8 on 6.5" Bolt Pattern	2
6	3040836	Full Float Axle Spindle Flange Retainer	2
7	3040837	Full Float Rear Axle Spindle JK	2
8	304504	JK Rear Big Brake Anchor Bracket for Factory Caliper	2
9	408	Bolt M12-1.75 x 60mm Hex Grade 8.8	8
10	601449	Bearing Cup and Cone CRD 60 Full Float Outer	2
11	601455	Bearing Set38 CRD60 Full Float Outer	2
12	610218	Wheel Stud 9/16"-18 x 2" Long	16
13	8371	Lock Washer Front Axle Spicer #621028	2
14	8372	Nut Spindle Dana 60 Outer	2
15	8373	Nut Spindle Dana 60 Inner (With pin)	2
16	125541	9/16"-18 Splined Lug Nuts	16
17	125542	9/16" Lug Nut Adapter Key	16
18	999236	Full Float Axle Shaft D44 Non-Rubicon 30 Spline	2
19	4304413	JK Rear Slotted 13.5" Rotor Passenger 8 on 6.5"	1
20	4304414	JK Rear Slotted 13.5" Rotor Driver 8 on 6.5"	1

# Non-Rubicon Dana 44

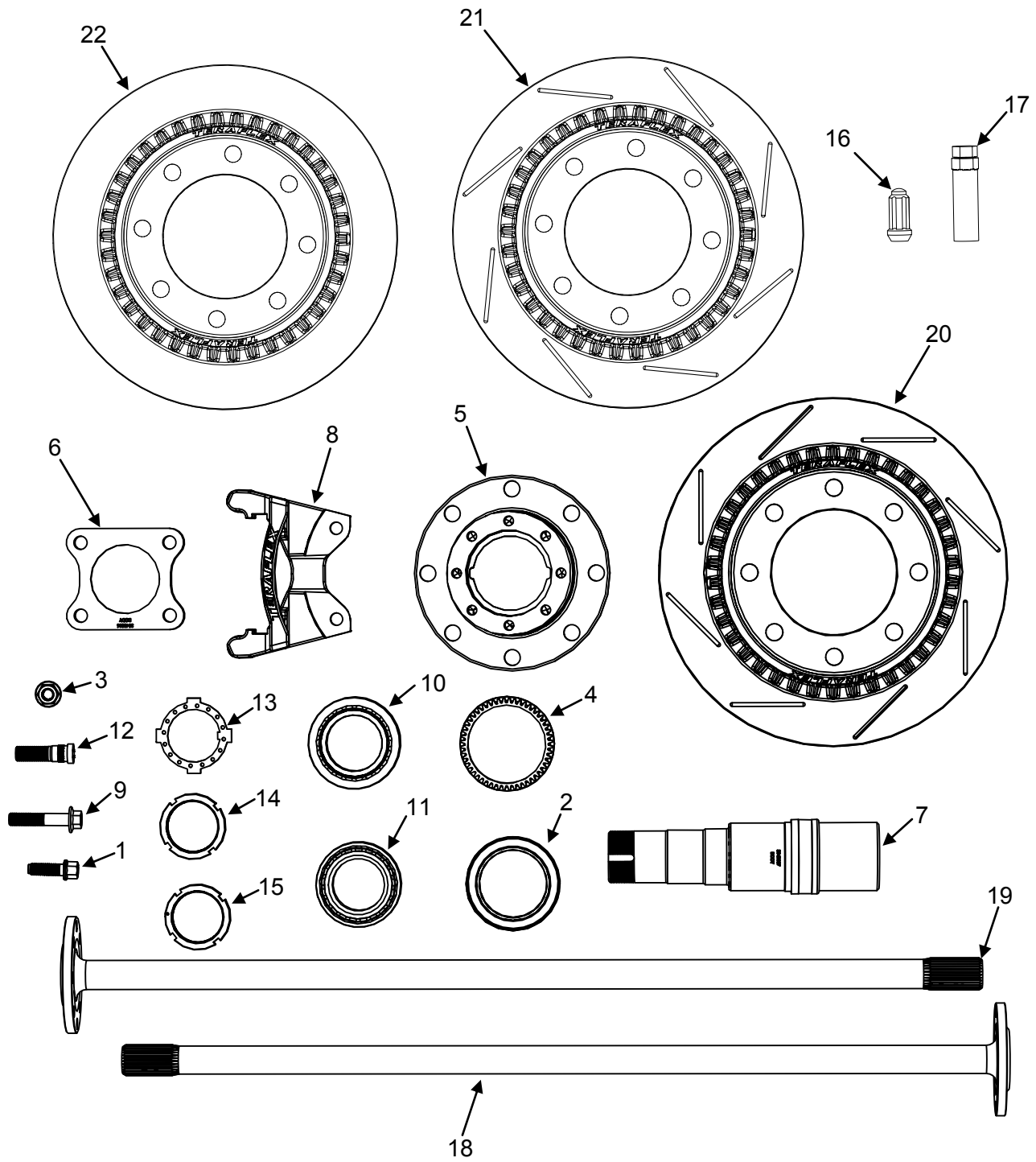


## Rubicon Dana 44

Parts List- Kit #3043200- Rubicon - Non Slotted Rotors			
Item Number	Part Number	Description	Quantity
1	1124	Bolt 7/16"-14 x1.375" Hex	16
2	2000005	Full Float Hub Seal	2
3	204	Nut M12x1.75 Serrated Flange Distorted Thread Lock	8
4	204450	JK Full Float Hub Tone Ring 52 Teeth Rear	2
5	3000866	Full Float Rear Hub 8 on 6.5" Bolt Pattern	2
6	3040836	Full Float Axle Spindle Flange Retainer	2
7	3040837	Full Float Rear Axle Spindle JK	2
8	304504	JK Rear Big Brake Anchor Bracket for Factory Caliper	2
9	408	Bolt M12-1.75 x 60mm Hex Grade 8.8	8
10	601449	Bearing Cup and Cone CRD 60 Full Float Outer	2
11	601455	Bearing Set38 CRD60 Full Float Outer	2
12	610218	Wheel Stud 9/16"-18 x 2" Long	16
13	8371	Lock Washer Front Axle Spicer #621028	2
14	8372	Nut Spindle Dana 60 Outer	2
15	8373	Nut Spindle Dana 60 Inner (With pin)	2
16	125541	9/16"-18 Splined Lug Nuts	16
17	125542	9/16" Lug Nut Adapter Key	16
18	999235	Full Float Rear Axle Shaft Driver Side Rubicon 32 Spline	1
19	999237	Full Float Rear Axle Shaft Passenger Side Rubicon 32 Spline	1
22	4304408	JK Rear Plain 13.5" Big Brake Rotor 8 on 6.5"	2

Parts List- Kit #3043300- Rubicon - Slotted Rotors			
Item Number	Part Number	Description	Quantity
1	1124	Bolt 7/16"-14 x1.375" Hex	16
2	2000005	Full Float Hub Seal	2
3	204	Nut M12x1.75 Serrated Flange Distorted Thread Lock	8
4	204450	JK Full Float Hub Tone Ring 52 Teeth Rear	2
5	3000866	Full Float Rear Hub 8 on 6.5" Bolt Pattern	2
6	3040836	Full Float Axle Spindle Flange Retainer	2
7	3040837	Full Float Rear Axle Spindle JK	2
8	304504	JK Rear Big Brake Anchor Bracket for Factory Caliper	2
9	408	Bolt M12-1.75 x 60mm Hex Grade 8.8	8
10	601449	Bearing Cup and Cone CRD 60 Full Float Outer	2
11	601455	Bearing Set38 CRD60 Full Float Outer	2
12	610218	Wheel Stud 9/16"-18 x 2" Long	16
13	8371	Lock Washer Front Axle Spicer #621028	2
14	8372	Nut Spindle Dana 60 Outer	2
15	8373	Nut Spindle Dana 60 Inner (With pin)	2
16	125541	9/16"-18 Splined Lug Nuts	16
17	125542	9/16" Lug Nut Adapter Key	16
18	999235	Full Float Rear Axle Shaft Driver Side Rubicon 32 Spline (Short)	1
19	999237	Full Float Rear Axle Shaft Passenger Side Rubicon 32 Spline (Long)	1
20	4304413	JK Rear Slotted 13.5" Rotor Passenger 8 on 6.5"	1
21	4304414	JK Rear Slotted 13.5" Rotor Driver 8 on 6.5"	1

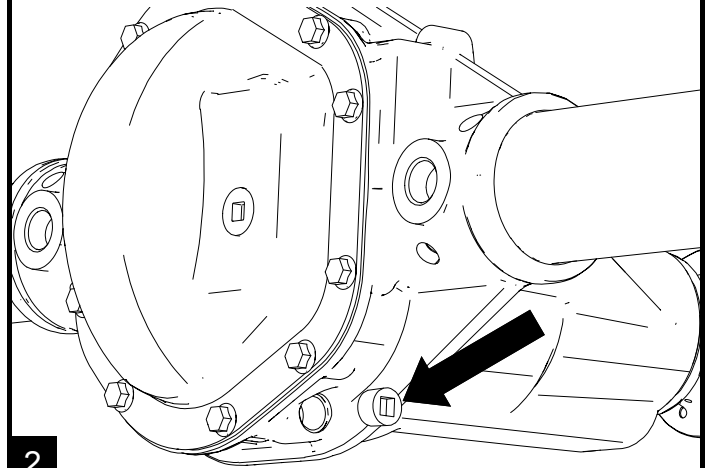
# Rubicon Dana 44



Refer to the factory service manual for lift locations. Raise and support the vehicle. Remove the tires and wheels and support the axle with a jack or jack stands.

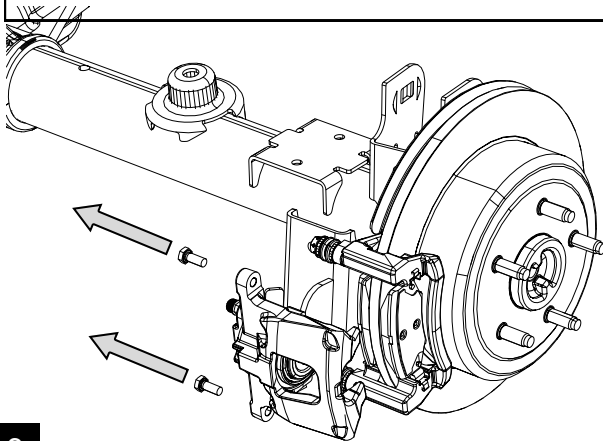
1

Drain the rear differential.



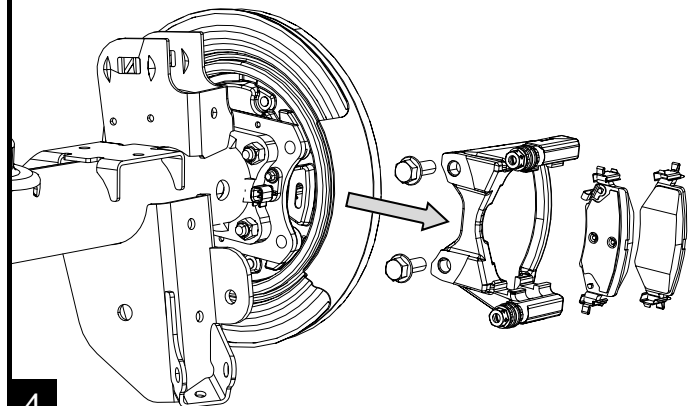
2

Remove the rear calipers with a 13mm, while holding the



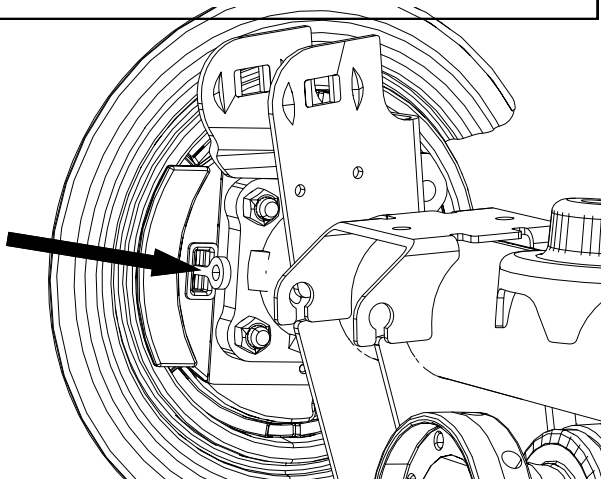
3

Remove the rear caliper anchor brackets with an 18mm. Remove the rotor.



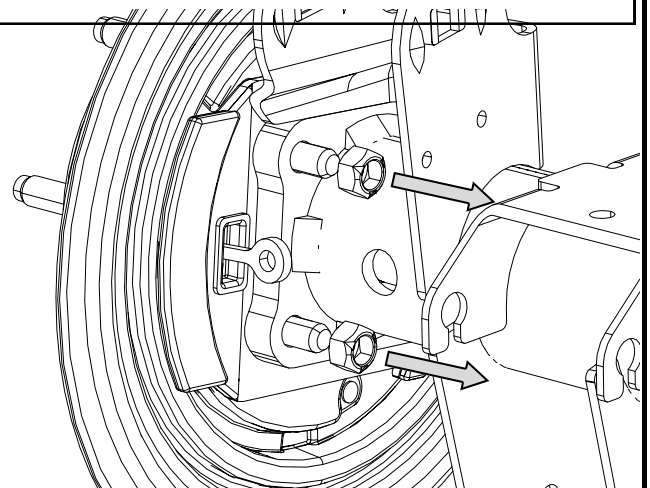
4

Disconnect the emergency brake cable from the linkage.



5

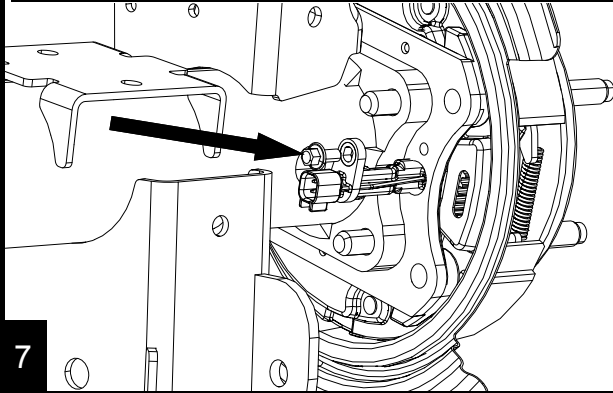
Remove the four retainer nuts from the rear of the



6

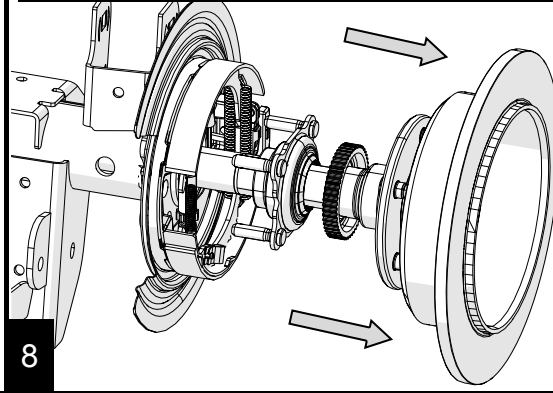
Using an 8mm, remove the wheel speed sensor from the backing plate.

**Note:** Harness connectors can be easily broke. To avoid this remove the sensor without unplugging it.

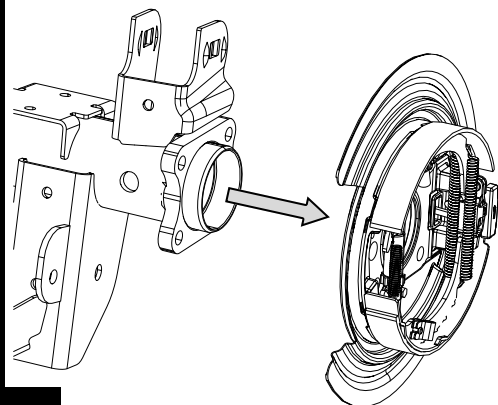


Pull the old axle shaft from the housing.

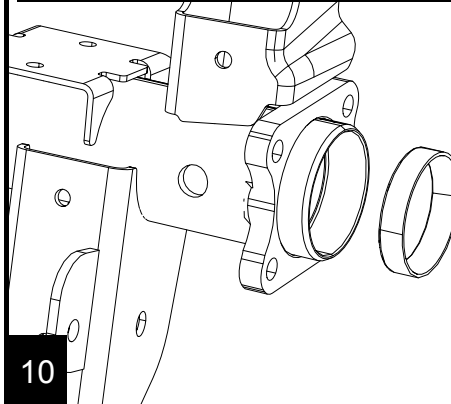
**Hint:** Install rotor backwards, loosely thread on lug nuts and use the rotor as a slide hammer to remove axle shaft



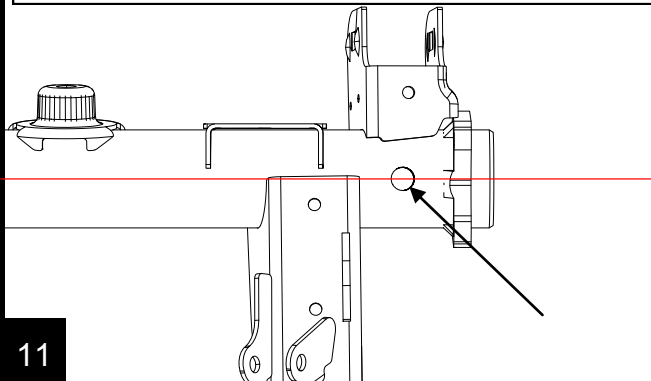
Remove the brake backing plate assembly from the housing.



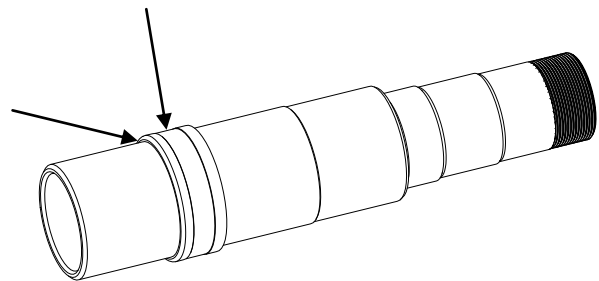
Remove the bearing race from the housing. Prior to drilling, pack the axle tube with shop towels beyond where you will be drilling to keep the shavings confined to the outer ends of the tube.



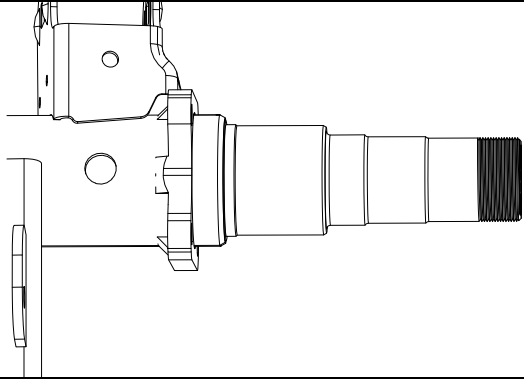
Drill a 1/2" hole on both sides of the axle tube, about 1 inch from the flange along the centerline of the axle. Deburr the inside edges of the drilled holes for easier spindle installation and remove the shop towels. Be sure to clean the axle tube of any shavings to prevent gear and bearing damage.



Coat the raised section of the spindle with silicone, and add a small bead to the spindle inner edge where it seats in the bearing pocket.

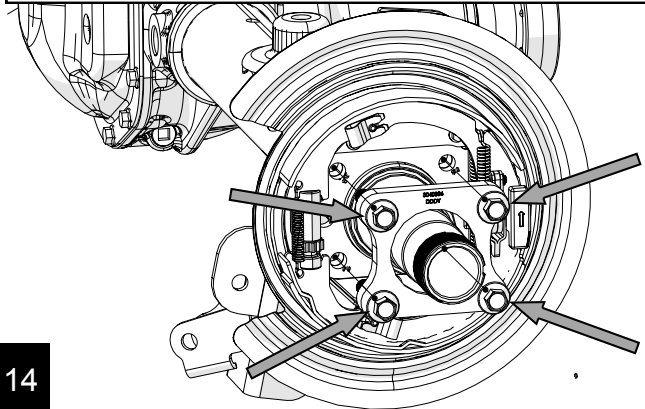


Using a soft face dead blow hammer, drive the new spindle into the axle housing until the step is fully seated into the bearing pocket of the housing. If a dead blow hammer is unavailable, use a block of wood to protect the end of the spindle and threads from damage.



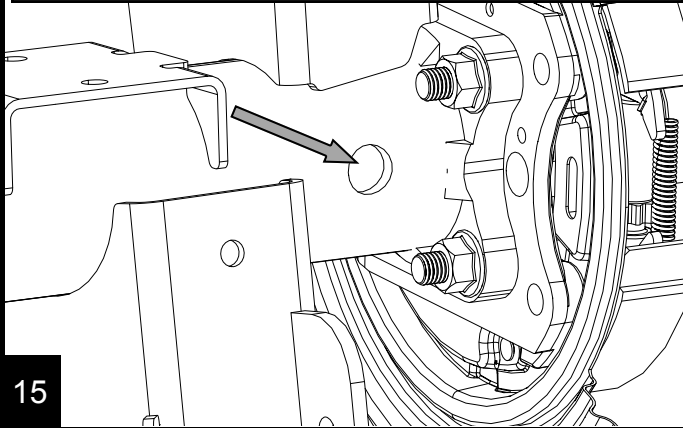
13

Reinstall the brake backing plate and spindle retainer with the new, longer, M12 hardware. Tighten all 4 corners in a cross pattern and torque bolts to **45 ft-lbs (61 Nm)**. Note the orientation of the retainer.



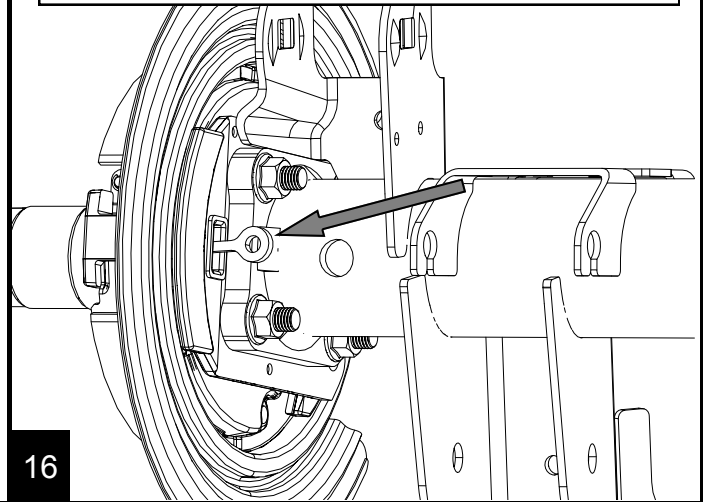
14

With the spindle fully installed, make a plug weld in each of the 1/2" holes drilled in the axle housing.  
**Note: The black coating on the spindle is a weld friendly.**



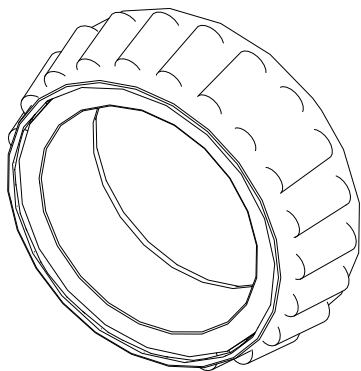
15

Reattach the emergency brake cable.



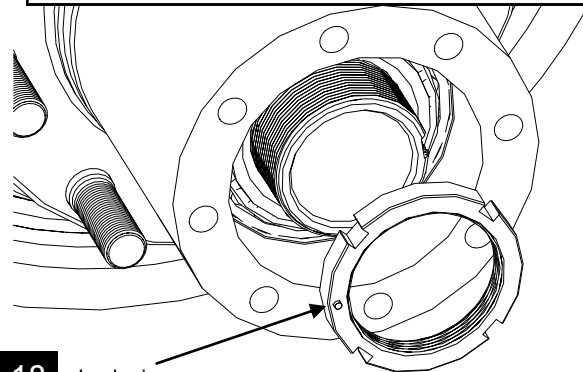
16

It is important to pack each of the bearings with plenty of wheel bearing grease. Also, apply grease to the seals.



17

Slide the hub over the spindle and install the outer bearing. Install the inner lock nut with the pin facing out.

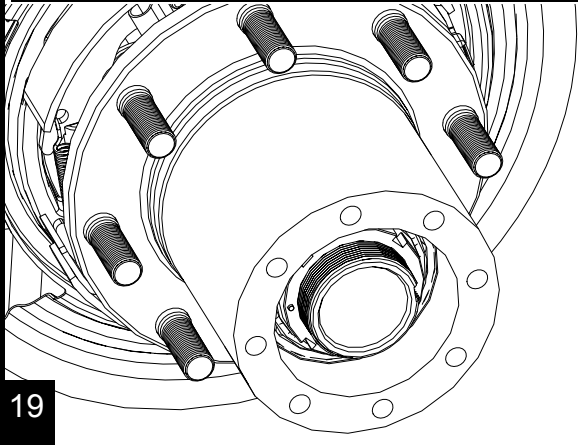


18

Lock pin

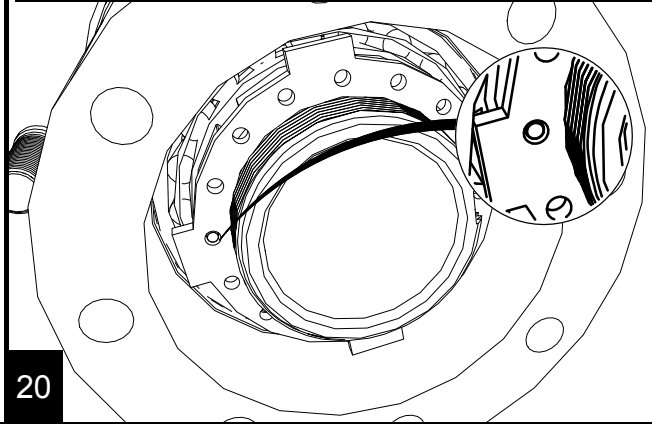


While turning the hub, torque the inner lock nut to **50 ft-lbs (68 Nm)** to seat the bearing, then back the nut off 90 degrees. Tighten as necessary to achieve pin alignment to the lock washer.



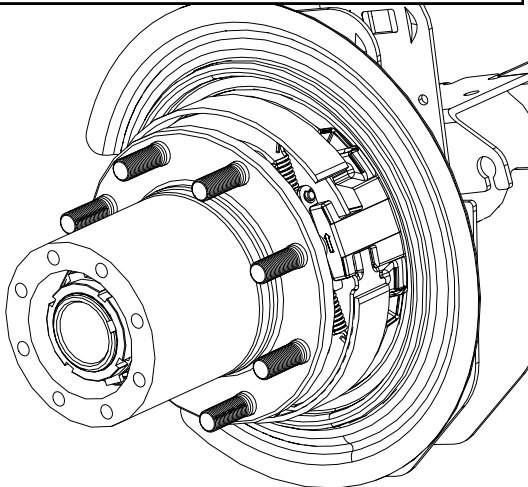
19

Install the lock washer. Note: the hole pattern of the lock washer is offset with the keyway to provide half-position settings. By flipping the washer over, finer preload settings can be achieved.



20

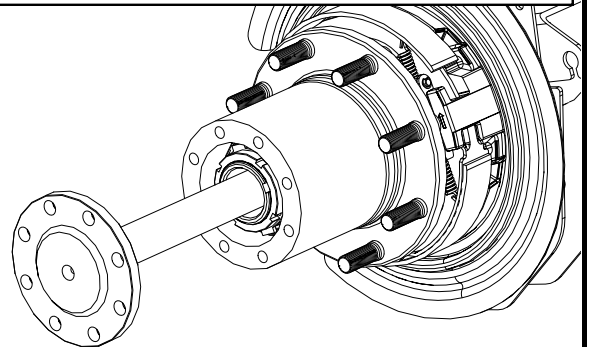
Install the outer lock nut.  
Torque to **160-205 ft-lbs (217-278 Nm)**



21

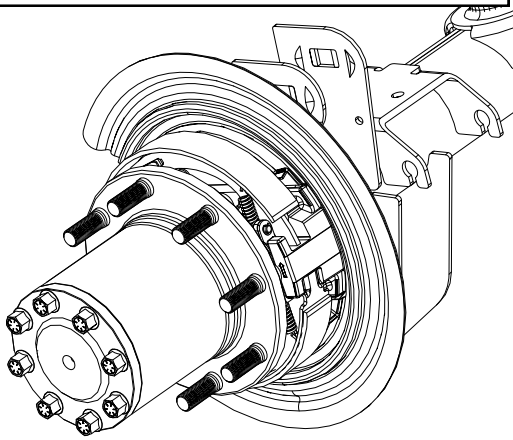
With the surfaces clean and dry, apply a bead of silicone to the face of the hub to create a seal around the axle flange. Slide the new full float axle shaft into the housing.

**Note: On a Non-Rubicon, axle shafts are both the same length. Rubicon shafts are short on the left or driver side and long on the passenger side.**



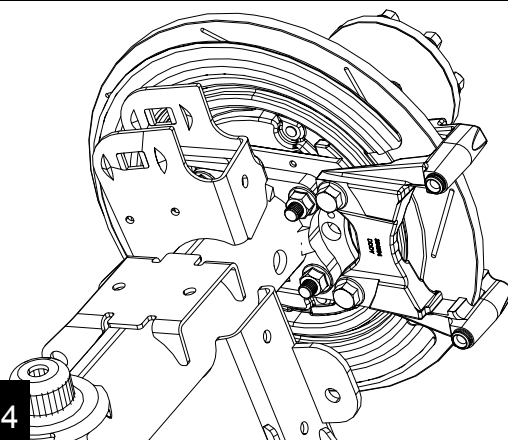
22

Apply thread lock to the eight 7/16" axle shaft bolts and install into the hub. Tighten in a cross pattern and torque bolts to **95 ft-lbs (129 Nm)**.



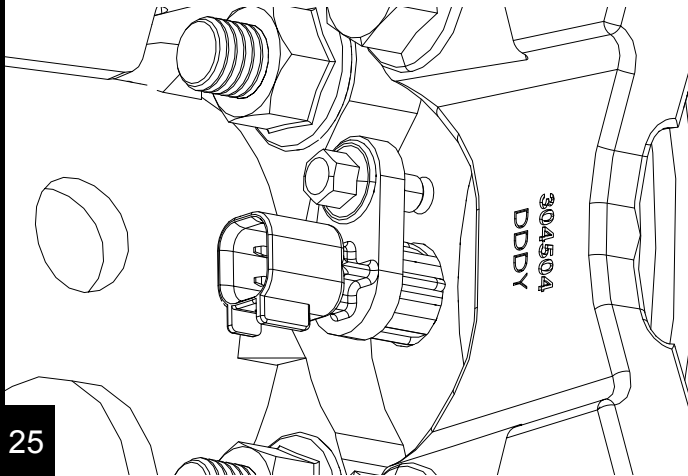
23

Use blue thread locking compound and install the new big brake rotor and anchor bracket. Torque bracket bolts to **55 ft-lbs (75 Nm)**.



24

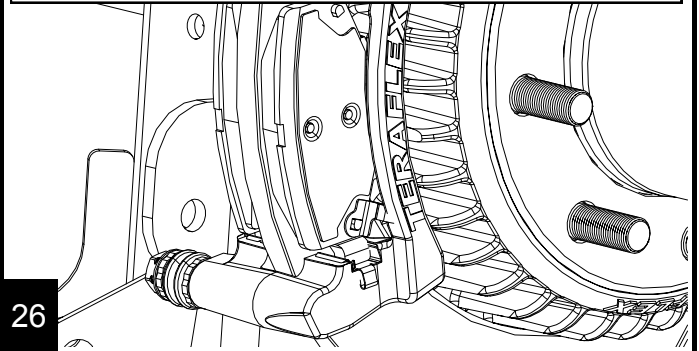
Reinstall the wheel speed sensor. Torque the sensor bolt to **106-124 inch-lbs (12-14 Nm)**



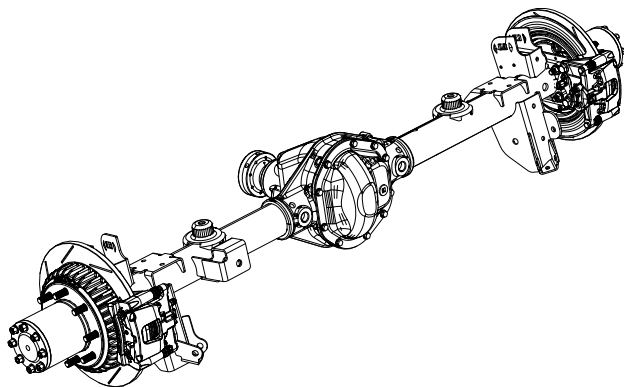
25

Apply brake grease to all pad to bracket/caliper contact points. Reinstall the brake pads and caliper. Thread lock caliper bolts and Torque to **26 ft-lbs (35 Nm)**. Repeat process for other side.

**Note: The coating on the rotors does not need to be removed.**



26



27

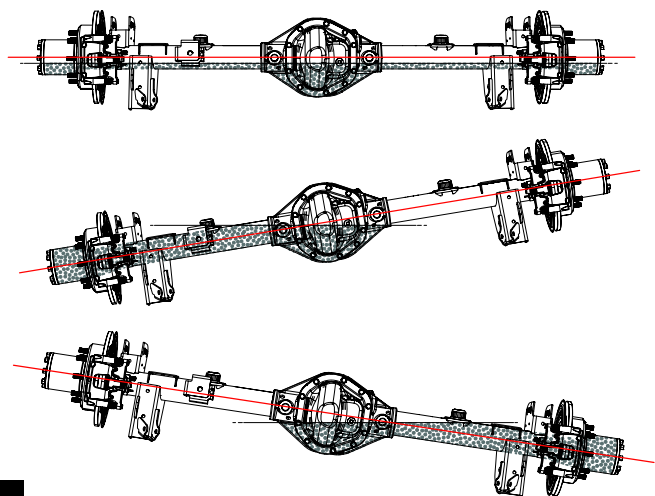
With both sides of the axle complete, install the tires using the new provided lug nuts, torquing the lug nuts to **135 ft-lbs (180 Nm)**. Remove supports and lower to the ground.

Reinstall the drain plug and fill the center section with fluid. Using a floor jack, raise one side of the axle at least 6 inches. Wait one minute. Level the axle, top off the center section and repeat for the other side. Wait one minute. Level the axle and top off the center section again.

This procedure ensures there will be enough oil in the differential and the wheel bearing packets are filled.

Re-check fluid level after approximately 15 miles of driving. Re-torque the lug nuts after 100 miles of driving.

28



29

**Note: After an offroad excursion, involving water crossings or heavy mudding, it is always good practice to check the differentials and hubs for water/mud contamination. Service axle as required.**

## PRODUCT INFORMATION

### MAINTENANCE INFORMATION:

It is the buyer's responsibility to have all suspension, drivetrain, steering, and other components checked for proper tightness and torque after the first 100 miles and every 3000 miles after that.

### NOTICE TO INSTALLER:

The enclosed "Warning to Driver" sticker must be installed in the vehicle in driver's view. This sticker is to act as a constant safety reminder when operating the vehicle. It is your responsibility as the equipment installer to install the provided sticker and to forward the product instructions to the vehicle's owner for review. If a "Warning to Driver" sticker or product installation guide were not included in the kit, FREE replacement stickers and instructions are available by request. It is the installer's duty to ensure a safe and controllable vehicle after the modifications have been performed.

### WARNING:

Neither the seller nor the manufacturer will be liable for any loss, damage, or injury directly or indirectly arising from the use of or inability to determine the use of these products. Before using, the user shall determine the suitability of the products for its intended use, and the user shall assume all responsibility and risk in connection therewith.

### WARNING TO DRIVER:

This vehicle has been modified to enhance off road performance and has unique handling characteristics. Use in harsh environments can cause extreme stress on the components. Vehicle should be inspected after being off road to make sure that all the components are in working order and safe to travel on the highway. All fasteners should be checked so that they are at the correct torque specifications as the vibration and stresses from off roading may cause critical fasteners to work loose. Extra care should be taken to inspect the critical components, steering, and brake systems. During each oil change components such as arms, tie rod ends, etc should be greased and checked for excessive wear. Any worn components should be replaced. When returning to the pavement always set or restore tire air pressure to the factory recommendation and connect or engage any disabled sway bar mechanisms. Because of the higher center of gravity and larger tires, this vehicle handles and reacts differently than many passenger cars, both on and off road. You must drive it safely! Extreme care should be taken to prevent vehicle rollover or loss of control, which can result in serious injury or death. Avoid sudden sharp turns or abrupt maneuvers. Generally, braking performance and capabilities are decreased when significantly larger/heavier tires are used, especially when used in combination with transfer case low-range reduction kits. Take this into consideration while driving. Do not add, alter or fabricate any factory or aftermarket parts to increase vehicle height over the intended height of the TeraFlex product purchased. Mixing component brand is not recommended. TeraFlex Inc. will not be responsible for any altered product or any improper installation or use of our products. We will be happy to answer any questions concerning the design, function, and correct use of our products. It is ultimately the buyer's responsibility to have all bolts/nuts checked for tightness after the first 100 miles and then every 3000 miles. Wheel alignment, steering system, suspension and drive line systems must be inspected by a qualified professional mechanic at least every 3000 miles.

### TERAFLEX PRODUCT WARRANTY:

TeraFlex Inc. warrants TeraFlex Suspension products to the original retail purchaser to be free of defects in material and workmanship for as long as the original purchaser owns the vehicle on which products were originally installed.

Failure to complete regular maintenance (grease every 3000 miles) on TeraFlex FlexArms will void this warranty. All other conditions of the standard TeraFlex product warranty apply.

All TeraLow products are covered by the TeraFlex two (2) year warranty to be free of defects in material and workmanship for two years from date purchased.

TeraFlex axles are covered by a 12-month warranty to be free of defects in materials and workmanship.

This warranty does not cover or include product finish, improperly installed or applied products, improperly maintained products, products or components used for racing or competition or damage due to abuse or neglect, products that fail due to the use of larger tire and wheel combinations.

All returns must be accompanied by an original invoice. It is the customer's responsibility to remove the product from the vehicle. Shipping charges are the responsibility of the customer. TeraFlex Inc. will pay the return freight if the product meets the terms of warranty.

This warranty is for the replacement or repair of defective TeraFlex products only and does not include freight charges, labor charges for removal of or installation of TeraFlex or related products or components, costs incurred due to down time of the vehicle, or lost profits due to vehicle down time.

A returned goods authorization number (RGA#) must accompany any returned products. For more information please contact a TeraFlex customer service representative.

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