

TERAFLEX

INSTALLATION GUIDE

Installation Guide for the Low300 low-range gear kit for the Dana 300 transfer case

Jeep Dana 300 **Part #002123000**
Scout Dana 300 **Part #002103000**
Scout w/Auto
& Dana 300 **Part #002103800**

Scout owners: Scout owners can purchase Part #002103000 for 1980 Scouts (manual transmissions). Part #002103800 is designed for automatic transmissions. The Scout kit requires some internal case grinding.

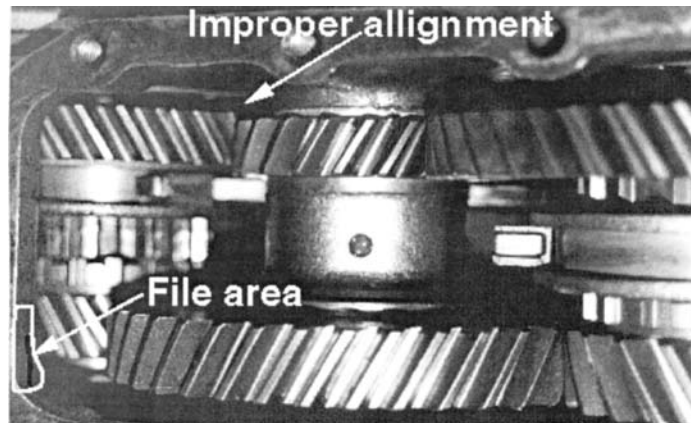


Installation Notes

Please follow the Dana 300 rebuild instructions in the Jeep Service Manual, **EXCEPT** make the following change:
Install shift rail, item #11, before installing the intermediate gear.

Gear Alignment

Pay careful attention to the rear output shaft spacer. With the #53 spacer gone, the gears misalign by .180" or about 25% of the tooth surface area. See illustration. We have seen this situation on many stock rebuild jobs. It is a common mistake. Don't leave the spacer out.



Case Filing/ Grinding

Because of the large intermediate gear, the assembly of the transfer case is more sequential than the stock case. We have found that by removing a small amount of the case it allows the intermediate gear to be put in independent of other gears. The illustration should help. A flat file works good for this job. You should not need to remove any of the gasket surface area.

Gear Noise

To help shock load, Tera Manufacturing has redesigned the gear set to minimize gear backlash. This may cause some gear noise. After running the gears, the noise, if any, will decrease. To further improve the performance of the Tera Low300 gear set, we have included replacement gears #300-421E for the stock front and rear sliding gears. (Be sure to install both gears.)

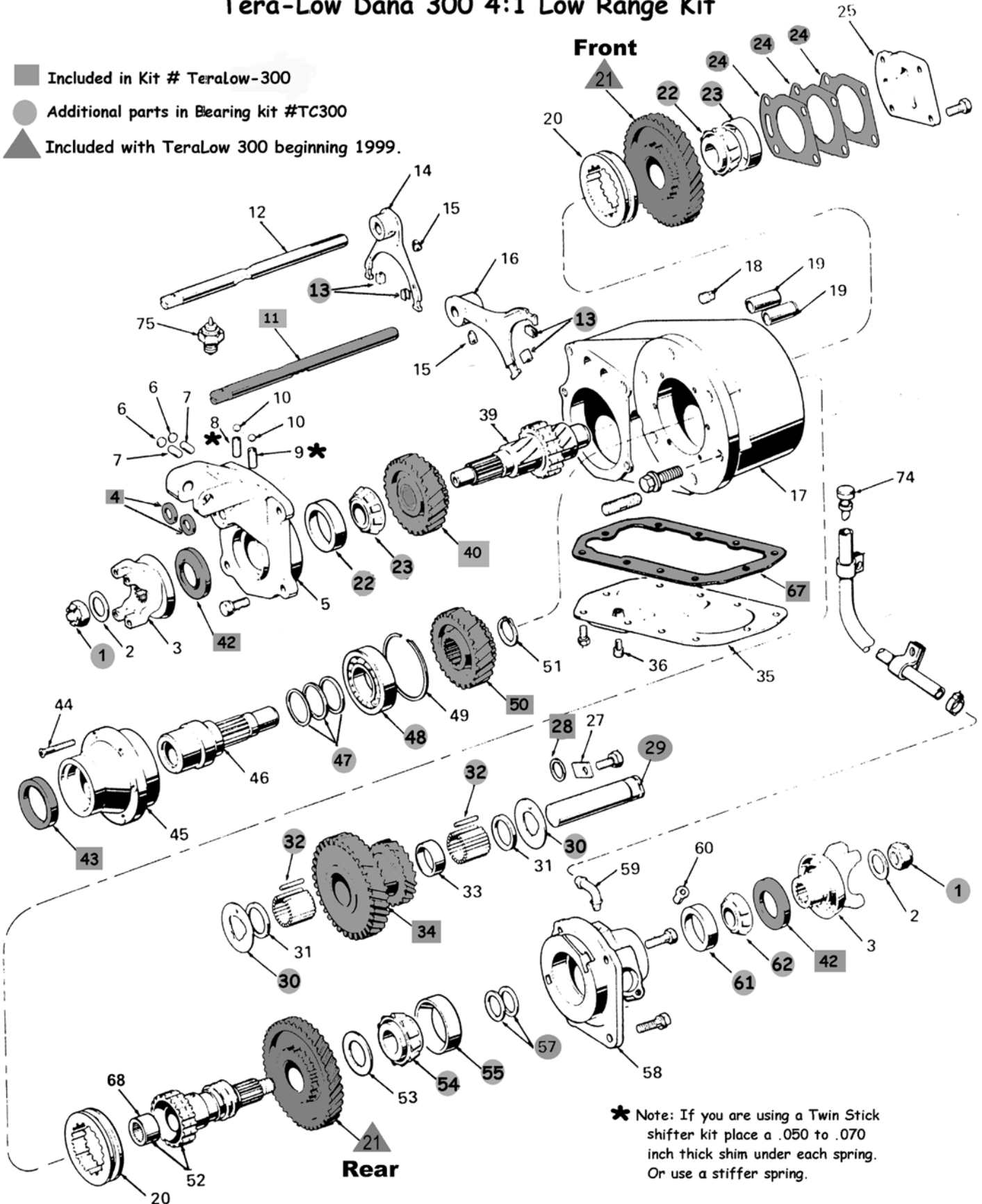
Towing Applications

When flat towing your vehicle, we recommend putting your front hubs in the free position and disconnecting the rear driveline at the differential. Failure to do so will damage your TeraLow transfer case.

TeraFlex, Inc.
5680 W Dannon Way
West Jordan, UT 84081
Phone/801.288.2585
Fax/801.713.2313
www.teraflex.com

Tera-Low Dana 300 4:1 Low Range Kit

- Included in Kit # TeraLow-300
- Additional parts in Bearing kit #TC300
- ▲ Included with TeraLow 300 beginning 1999.



* Note: If you are using a Twin Stick shifter kit place a .050 to .070 inch thick shim under each spring. Or use a stiffer spring.



300 Dana Spicer TRANSFER CASE with Tera-Low Gear kit

#	Description	Qty	Jeep Part #	Brg. #
1	NUT, Output Shaft(Front & rear)	2	1791575	
2	WASHER, Output Shaft (Front & Rear)	2	J4004913	
3	YOKE (Front & Rear) Use with straps (With U-bolts use J8130288)	1	J8131656	
4	SEAL, Shift Rod Oil	2	J8131674	
5	CAP. Front Output Bearing	1	J8131671	
6	PLUG Interlock	2	J8131677	
7	INTERLOCK	2	JA000965	
8	SPRING, Shift Rod Poppet (Front)	1	JA000966	
9	SPRING, Shift Rod Poppet (Rear)	1	J8131675	
10	BALL, Shift Rod	2	S0453593	
11	ROD, Shift (Rear)	1	300-421D	
12	ROD, Shift Front)	1	J8131673	
13	CLIP, Shift Fork	4	J8131670	
14	<i>FORK, Shift (Front)</i>	<i>1</i>	<i>J8131665</i>	
15	SCREW, Shift Fork	2	J0935727	
16	<i>FORK, Shift (Rear)</i>	<i>1</i>	<i>J8131666</i>	
17	<i>CASE, Transfer</i>	<i>1</i>	<i>J8133466</i>	
18	PLUG, Fill use 1/2" pipe plug	1		
19	THIMBLE, Shift Fork Rod	2	J0934281	
20	<i>COLLAR, Clutch</i>	<i>2</i>	<i>J8131667</i>	
21	GEAR, Sliding Drive	2	300-421E	
22	CONE. Bearing (Front)	2	2070316	M86649
23	CUP, Bearing (Front)	2	2070317	M86610
24	SHIM KIT (.003 .010 .030)	1	J8131668	
25	COVER, Front Output Rear	1	J8131657	
27	LOCKPLATE	1	JA001001	
28	SEAL, Intermediate Shaft	1	J0942114	
29	SHAFT, Intermediate	1	J0942115	
30	WASHER, Thrust	2	J8121813	
31	SPACER, Intermediate Bearing	2	J0809295	
32	BEARING, Needle	48	J0809294	
33	SPACER, Bearing	1	J8131661	
34	GEAR, Intermediate	1	300-421A	
35	COVER, Case (incl. Drain Plug)	1	J8131663	
36	PLUG, Drain	1	J8131664	
39	SHAFT, Front Output	1	J8131660	
40	Gear, Front Output	1	300-421B	
42	SEAL, Oil	2	J8131669	
43	SEAL, Input Oil	1	J8131684	
44	SCREW, Input Retainer	6	J8132677	
45	RETAINER, Input Bearing	1	J8131681	
46	SHAFT, Input	1	J8131687	
47	<i>SHIM KIT, Input Shaft.</i>	<i>1</i>	<i>J8131689</i>	
48	BEARING, Input	1	J8131682	#209
49	<i>RING, Bearing Snap</i>	<i>1</i>	<i>J8131683</i>	
50	GEAR, Input	1	300-421C	
51	RING, Input Gear Snap	1	J8131686	
52	SHAFT, Rear Output (integral speedometer Drive Gear)	1	J8133793	
53	<i>SPACER, Output Shaft</i>	<i>1</i>	<i>J8131662</i>	
54	CONE, Rear Output Inner Bearing	1	J8134239	#25880*
55	CUP, Rear Output Inner Bearing	1	J0052800	#25821
57	SHIM KIT, Rear Output Bearing	1	J0933743	
58	<i>CAP, Rear Output Snap ring</i>	<i>1</i>	<i>83500445</i>	
59	BREATHER	1	J8131659	
60	<i>BUSHING, Speedometer</i>	<i>1</i>	<i>JA000985</i>	
61	CUP, Rear Output Bearing Outer	1	J3124570	X15245
62	CONE, Rear Output Bearing Outer	1	J0933737	#15117
67	GASKET, Pan	1	JA000954	
68	BEARING, Pocket	1	J8134553	
74	CAP, Vent	1	J5352955	
75	SWITCH, Lockout	1	J3211322	

Bold items are included in Tera Low300 gear kit.

*Bearing 25880 for 1981-1986 Dana 300s. 1980 Dana 300s use bearing number #25877

Limited availability items are in italics

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Tera Manufacturing, Inc.
5251 South Commerce Dr.
Murray, UT 84107
phone/801.288.2585 fax/801.713.2313

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PRODUCT INFORMATION & WARRANTY

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:

Tera Manufacturing 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 TeraFlex's two (2) year warranty to be free of defects in material and workmanship for two years from date purchased.

Tera 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. Tera Manufacturing 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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TeraFlex, Inc. 5241 South Commerce Dr. Murray, Utah 84107
Phone/801.288.2585 Fax/801.713.2313 www.teraflex.biz