

# VEHICLE UNDERCARRIAGE INSTALLATION INSTRUCTIONS

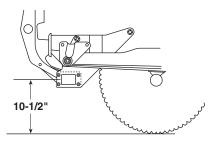
**NISSAN FRONTIER (1998-2003)** 

# UNDERCARRIAGE PART NO. 35028 HARDWARE KIT PART NO. 61486

# **UNDERCARRIAGE INSTALLATION INSTRUCTIONS**



A label identifying the undercarriage assembly part number and push beam part number is applied to the rear of the push beam.



The recommended push beam height for this undercarriage assembly is 10-1/2" from the center of the push beam to level ground. DO NOT exceed 12-1/2" in height for this undercarriage.

WARNING: Always perform vehicle undercarriage installations with the keys removed from the vehicle's ignition. Properly tag the ignition switch to alert others work is being performed on the vehicle.

Most newer trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

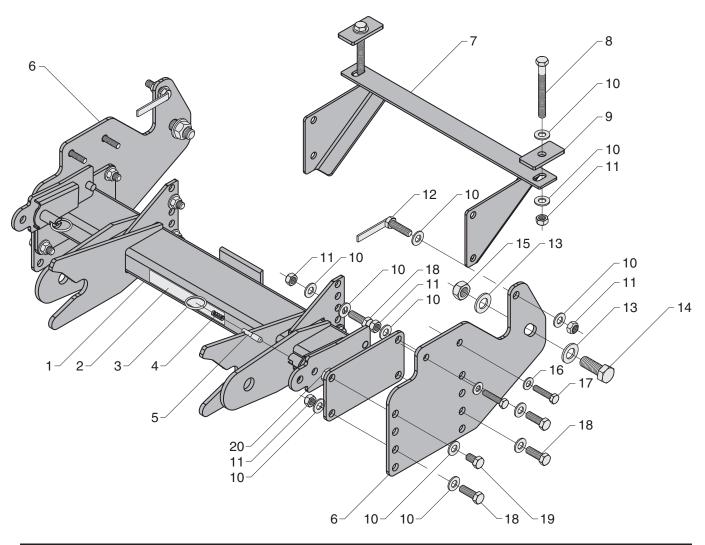
FAILURE TO COMPLY WITH THE ABOVE WARNINGS MAY RESULT IN SERIOUS INJURY OR DEATH.

CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

- Begin the assembly by removing both metric bolts and washers from the BUMPER SUPPORT BRACKETS at the outside of each truck frame rail. Discard the fasteners.
- 2. Using the access hole in the truck frame rail under the vehicle body mount, position one 1/2"-13 x 1-1/2" bolt with welded tab inside of the truck frame rail. Position the top, rear hole on the HANGER PLATE over the bolt and secure it with one 1/2" washer and top lock nut. Note: Use a stiff wire to hold the bolt into position. Finger tighten the fasteners until all undercarriage parts are in place.
- 3. Next, align the two top holes in the HANGER PLATE with the bumper support mount holes in the truck frame rail. Position the bumper support bracket over the hanger plate and secure it with two M10-1.25 x 45 bolts with 7/16" washers. *Note: The bolts will thread into the welded nuts at the interior of the frame rail.*
- 4. Secure the bottom of the hanger plate to the vehicle tie down bracket using one 3/4"-10 x 2" bolt, two 3/4" washers and one top lock nut.
- 5. Repeat steps #2 through #4 for the opposite hanger plate.
- 6. Align the mount holes in the PUSH BEAM SUPPORT ARM with the holes in the bottom of the vehicle crossmember. Place one FRAME REINFORCEMENT PLATE over the top of each crossmember hole and secure it using one 1/2"-13 x 4-1/2" bolt, two 1/2" washers and one 1/2" top lock nut.
- 7. Mount the PUSH BEAM to each hanger plate using three 1/2"-13 x 1-1/2" bolts, seven 1/2" washers and three 1/2" top lock nuts. *Note:*The front top mount holes in the push beam receive a 1/2"-13 x 7/8" bolt and one 1/2"-13 heavy hex jam nut.
- 8. Secure the push beam support arm to the push beam using four 1/2"-  $13 \times 1-1/2$ " bolts, eight 1/2" washers and four 1/2" top lock nuts.
- 9. Once the undercarriage has been positioned and all hardware is in place, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
- 10. Position the LIGHT TOWER into the mount pockets on the push beam. Each pocket has a lock pin that secures both light tower arms. Pull out and twist each ring handle to temporarily unlock the pins. Place the light tower into the pockets and relock the pins. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the snowplow headlights into the connectors on the vehicle wire harness. Adjust both lights with the plow in the raised position.



	UNDERCARRIAGE PARTS LIST							
Ref. No.	Part No.	Qty.	Part Description					
N/A	35028	1	Assembly, Undercarriage: Nos. 1-20					
1	35029	1	Push Beam Weldment					
2	61128	1	Decal, Push Beam, 1-1/2" x 9"					
3	61309	2	Ring, Standard Split, 1-1/4" O.D., 1-1/16" I.D., SS					
4	61000	2	Spring, Compression, 0.94" O.A.F.L. x 0.36" O.D., 0.029" Wire DIA., SS					
5	40079	2	Pin, 3/8" DIA. x 1-3/4", SS					
6	35031	2	Plate, Hanger, Driver's & Passenger's Side					
7	35035	1	Support Arm, Push Beam Weldment					
8	61152	2	Screw, Hex Head Cap, 1/2"-13 x 4-1/2" Grade 8, YZ					
9	35042	2	Plate, Frame Reinforcement, 1-1/2" x 3" x 1/4"					
10	61026	30	Washer, SAE Mil-Carb High-Strength, 1/2", 1-1/16" O.D., 17/32" I.D., YZ					
11	61020	14	Nut, Top Lock, 1/2"-13 Grade C, Z					
12	61151	2	Screw, Hex Head Cap, 1/2"-13 x 1-1/2" Grade 8, YZ with Welded Tab					
13	61304	4	Washer, SAE Mil-Carb High-Strength, 3/4", 2" O.D., 13/16" I.D., YZ					
14	61488	2	Screw, Hex Head Cap, 3/4"-10 x 2" Grade 8, YZ					
15	61006	2	Nut, Top Lock, 3/4"-10 Grade C, Z					
16	61162	4	Washer, SAE Mil-Carb High-Strength, 7/16", 59/64" O.D., 15/32" I.D., YZ					
17	61491	4	Screw, Hex Head Cap, M10-1.25 x 45 Grade 8.8, Z					
18	61055	10	Screw, Hex Head Cap, 1/2"-13 x 1-1/2" Grade 8, YZ					
19	61489	2	Screw, Hex Head Cap, 1/2"-13 x 7/8" Grade 8, YZ					
20	61490	2	Nut, Heavy Hex Jam, 1/2"-13 Grade C, Z					
N/A	61486	1	Kit, Hardware - Undercarriage P/N 35028: Nos. 8-20					

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only. Always review the part number given for proper component identification. Blizzard Corporation reserves the right, under its Continuous Improvement Policy, to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications.

## **HEADLIGHT ADAPTER KIT GUIDE**

VEHICLE APPLICATION	HEADLIGHT CONNECTOR(S)	HEADLIGHT DESCRIPTION	HEADLIGHT NUMBERS	HEADLIGHT ADAPTER KIT
2001-2003 NISSAN FRONTIER	HB5	DUAL RECTANGULAR HALOGEN	9007, H9007	62012
1998-2000 NISSAN FRONTIER	2B/2D	DUAL RECTANGULAR HEADLAMP	H6054, HP6054	62010
	HB1	DUAL RECTANGULAR COMPOSITE HALOGEN	9004, H9004	62011

Note: Headlight adapter kits are not included with vehicle undercarriage mounts. All headlight adapter kits sold separately.

# TORQUE SPECIFICATIONS



### Grade Identification Marking for J429 - Grade 5 Bolt

- Material: Medium carbon steel: quenched and tempered
- Minimum Proof Strength: 85,000 psi
- Minimum Tensile Strength: 120,000 psi
- Core Hardness Rockwell (min.): C25, (max.): C34
- Minimum Yield Strength: 92,000 psi



#### Grade Identification Marking for J429 - Grade 8 Bolt

- Material: Medium carbon alloy steel:quenched and tempered
- Minimum Proof Strength: 120,000 psi
- Minimum Tensile Strength: 150,000 psi
- Core Hardness Rockwell (min.): C33, (max.): C39
- Minimum Yield Strength: 130,000 psi

Nominal	S	AE J429 - Grade	5	Nominal	SAE J429 - Grade 8		
Thread	Clamp Loads	Tightening Torque		Thread	Clamp Loads	Tightening Torque	
Size	(lbs.)	"Lubricated"	"Dry"	Size	(lbs.)	"Lubricated"	"Dry"
1/4-20	2,000	75 in-lbs	100 in-lbs	1/4-20	2,850	107 in-lbs	143 in-lbs
5/16-18	3,350	157 in-lbs	210 in-lbs	5/16-18	4,700	220 in-lbs	305 in-lbs
3/8-16	4,950	23 ft-lbs	31 ft-lbs	3/8-16	6,950	32.5 ft-lbs	44 ft-lbs
7/16-14	6,800	37 ft-lbs	50 ft-lbs	7/16-14	9,600	53 ft-lbs	70 ft-lbs
1/2-13	9,050	57 ft-lbs	75 ft-lbs	1/2-13	12,800	80 ft-lbs	107 ft-lbs
9/16-12	11,600	82 ft-lbs	109 ft-lbs	9/16-12	16,400	115 ft-lbs	154 ft-lbs
5/8-11	14,500	113 ft-lbs	151 ft-lbs	5/8-11	20,300	159 ft-lbs	211 ft-lbs
3/4-10	21,300	200 ft-lbs	266 ft-lbs	3/4-10	30,100	282 ft-lbs	376 ft-lbs
7/8-9	29,435	321 ft-lbs	430 ft-lbs	7/8-9	41,550	454 ft-lbs	606 ft-lbs
1-8	38,600	482.5 ft-lbs	640 ft-lbs	1-8	54,540	680 ft-lbs	900 ft-lbs



### **Grade Identification Marking for Metric - Grade 8.8 Bolt**

- Material: Medium carbon steel: quenched and tempered
- Minimum Proof Strength: 580 MPaMinimum Tensile Strength: 800 MPa
- Core Hardness Rockwell (min.): C22, (max.): C32
- Minimum Yield Strength: 640 MPa



### Grade Identification Marking for Metric - Grade 10.9 Bolt

- Material: Low carbon alloy steel: quenched and tempered
- Minimum Proof Strength: 830 MPa
- Minimum Tensile Strength: 1040 MPa
- Core Hardness Rockwell (min.): C32, (max.): C39
- Minimum Yield Strength: 940 MPa

Diameter		Metric Class 8.8		Diameter	Metric Class 10.9		
(millimeters)	Clamp Loads	Tightening Torque		(millimeters)	Clamp Loads	Tightening Torque	
	(Newton)	"Lubricated"	"Dry"		(Newton)	"Lubricated"	"Dry"
5	6177	4.63 N-m	6.18 N-m	5	8840	6.63 N-m	8.84 N-m
6	8743	7.87 N-m	10.5 N-m	6	12512	11.3 N-m	15.0 N-m
7	12570	13.2 N-m	17.6 N-m	7	17990	18.9 N-m	25.2 N-m
8	15921	19.1 N-m	25.5 N-m	8	22784	27.3 N-m	36.5 N-m
10	25230	37.8 N-m	50.5 N-m	10	36105	54.1 N-m	72.2 N-m
12	36670	66.0 N-m	88.0 N-m	12	52475	94.5 N-m	125 N-m
14	50025	105 N-m	140 N-m	14	71587	150 N-m	200 N-m
16	70650	170 N-m	226 N-m	16	97732	235 N-m	313 N-m
18	86400	233 N-m	311 N-m	18	119520	323 N-m	430 N-m
20	110250	330 N-m	441 N-m	20	152513	458 N-m	610 N-m

Disclaimer: All torque values included in the charts above are advisory only, and their use by anyone is entirely voluntary. Reliance on the contents for any purpose by anyone is the sole risk of that person and Blizzard Corporation is not responsible for any loss, claim or damages arising therefrom. Blizzard Corporation has made an effort to present the above contents accurately, but we do not guarantee its completeness or validity. This information is subject to change at any time, without notice. Blizzard Corporation makes no representations or warranties, express or implicit, in connection with the information.