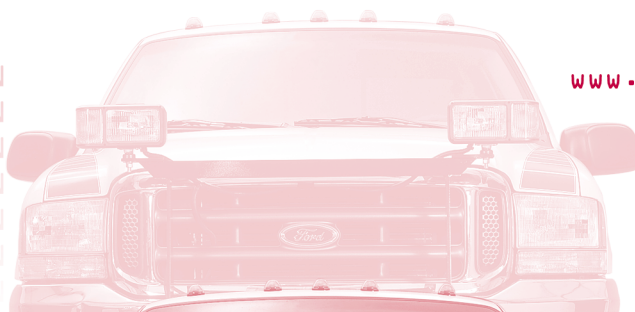




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WIDEPASS POSITION  
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WIDEPASS POSITION

BUCKETBLADE POSITION  
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BUCKETBLADE POSITION  
BUCKETBLADE POSITION



**EXPANDS**  
**AUTOMATICALLY FROM 8' TO 10'**

ASSEMBLY & OPERATION MANUAL  
Model 810 Snowplow

## Introduction

Congratulations on purchasing the most advanced snowplow available! The Blizzard Power Plow is clearing new trails for innovative design, rugged durability, quality craftsmanship and superior performance. Our exclusive products are manufactured and tested in Michigan's Upper Peninsula, the snow capital of the Midwest. With an annual snowfall averaging over 250," we couldn't imagine building snow removal products anywhere else!

Your Blizzard Power Plow is equipped with versatile features designed for years of dependable service. The hydraulic draw latch mounting system positively aligns the plow for fast installation or removal. Twelve-inch expanding wings automatically transform a compact 8' blade into a massive 10' machine. Also, the independent wings can pivot forward to form our 9'-3" BucketBlade™ position. Now you can carry more snow even further. Safety features include full moldboard trip action, enclosed hydraulics and automatic cylinder pressure relief.

To ensure years of optimum snowplow performance, review the contents of this manual. It contains assembly information, detailed diagrams, complete parts listings, maintenance guidelines and troubleshooting tips.

Should you need additional information, contact your local Blizzard Power Plow Dealer. Their knowledgeable staff is well informed on the latest Power Plow information. They are also your source for replacement parts, technical assistance and all service repairs.

Comments, suggestions or concerns? Address all correspondence to:

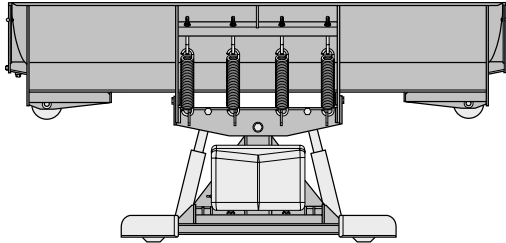
Blizzard Corporation  
Customer Service Department  
95 Airpark Boulevard  
Calumet, MI 49913  
(888) 680-8600  
(906) 482-5555  
(906) 482-5445 Fax

# TABLE OF CONTENTS

<b>01</b>	Snowplow Operation
<b>02</b>	Warning!
	<b>Plow Assembly Instructions</b>
<b>03</b>	Unpacking & Inspection
<b>04</b>	Moldboard Assembly
<b>05</b>	A-frame Assembly
<b>09</b>	Electrical Assembly - Plow & Vehicle Harness
<b>12</b>	Testing The Snowplow
<b>13</b>	Mounting & Dismounting Instructions
	<b>Maintenance &amp; Plow Specifications</b>
<b>14</b>	Regular Maintenance
<b>15</b>	Storing Your Snowplow
<b>16</b>	Plow Specifications
<b>17</b>	Notes
	<b>Plow Diagrams</b>
<b>18</b>	Model 810 Parts List
<b>21</b>	Moldboard & Pivot Beam
<b>22</b>	Wing & Slide Box
<b>23</b>	A-frame, Draw Latch, Pump & Manifold
<b>24</b>	Manifold Detail
<b>25</b>	Light Tower & Electrical Harness
<b>28</b>	Model 810 Assembly Schematic
	<b>Electrical Diagrams</b>
<b>26</b>	Plow Harness
<b>27</b>	Plow Harness Wire Schematic
<b>30</b>	Vehicle Harness
<b>31</b>	Vehicle Harness Wire Schematic
<b>32</b>	Solenoid Ground Harness Wire Schematic
<b>33</b>	Molded Plug Pin Locations
	<b>Undercarriage Assembly Instructions</b>
<b>34</b>	1987-1991 Ford
<b>36</b>	1992-1998 Ford F-250 & F-350
<b>38</b>	1999-Present Ford F-250 & F-350
<b>40</b>	1999-Present Ford F-450 & F-550
<b>42</b>	1982-1987 Chevrolet/GMC
<b>44</b>	1988-1998 Chevrolet/GMC 2500 Series & 3500 Series, 1999-Present Chevrolet/GMC 3500 Series
<b>46</b>	1988-2000 Chevrolet/GMC 1 Ton Heavy-Duty 2WD
<b>48</b>	1999-Present Chevrolet/GMC 2500 Series
<b>50</b>	1979-93 Dodge
<b>52</b>	1994-Present 2500 & 3500 Series Dodge
	<b>Troubleshooting</b>
<b>54</b>	Troubleshooting Guide
	<b>Warranties</b>
<b>56</b>	Limited Consumer Warranty
<b>57</b>	Commercial Warranty

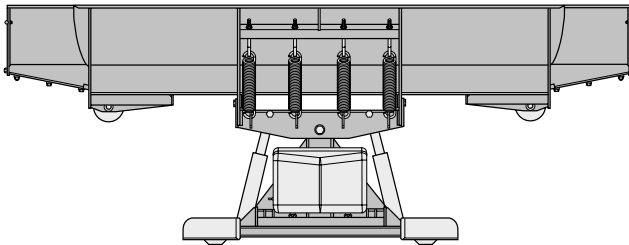
# SNOWPLOW OPERATION

Your Power Plow is the most advanced and versatile snowplow on the market. The easy to use controls allow you to automatically adjust the plow blade and wings into an infinite number of plowing positions. Review the illustrations below to determine the best position for your plowing needs.



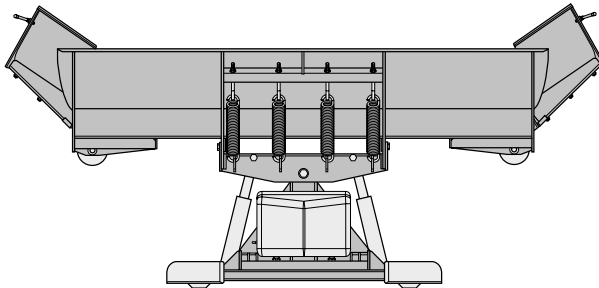
## Compact Position (8' Blade Width)

- Primary position when transporting the snowplow
- For use in heavy snow conditions with poor visibility, initial clearing and tight quarters
- *Ideal application: Residential driveways, small roads*



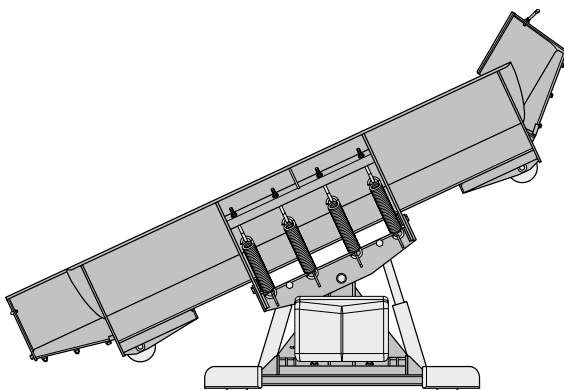
## WidePass™ Position (10' Blade Width)

- Primary position for clearing large surfaces
- For use in light snow conditions with good visibility, final clearing and clean-up
- *Ideal application: Large parking lots, widening roadways*



## BucketBlade™ Position (9'-3" Blade Width)

- Primary position for transporting snow
- For use in initial clearing with decent visibility, transporting large volumes of snow, final clean-up
- *Ideal application: Roadway intersections*



## WidePass™ Position Angled with Wing Forward

- Primary position for high speed angled plowing
- For use in directional plowing, cornering, diverting snow away from objects or buildings
- *Ideal application: Plowing adjacent to buildings, driveway/road intersections*

# WARNING!



## WARNING:

Prior to operating your Power Plow, review the WARNING! label at the passenger's side rear of the moldboard (shown below).



## CAUTION:

*Note: Read and understand all warnings indicated in this manual prior to operating the snowplow. Warnings and cautions in the manual are indicated by the icons shown to the left.*

# WARNING

1. Make sure the main power switch on the control unit is in the "OFF" position when attaching the snowplow.
2. Properly attach the snowplow prior to moving the vehicle.
3. Stand clear of the attachment area when mounting the snowplow to the undercarriage and operating the Power Hitch Connect/Disconnect switch. Failure to do so may result in serious injury or death.
4. Securely position all mounting pins prior to operating your snowplow.
5. Do not position your body between the snowplow and the vehicle when servicing or operating.
6. Position snowplow in such a manner as to not block your vision or plow headlights while in transit.
7. Always travel with the wings fully retracted. Depending on local and state regulations, you may be exceeding the legal vehicle width when the wings are fully or partially extended.
8. Do not change the position of the blade while in transit.
9. Do not exceed 40 mph when transporting plow.
10. Do not exceed 10 mph when plowing.
11. Always lower blade when vehicle is parked.
12. Vehicles equipped with air bags are designed to be activated in a frontal collision equivalent to hitting a solid object or barrier at approximately 14 mph or more.

## WARNING

Careless or high speed driving while plowing snow, which results in vehicle impact deceleration equivalent to or greater than the airbag deployment threshold described above, would deploy the airbag.

Blizzard Power Plow is protected by U.S. Patent 5,899,007. U.S. Patent 5,638,618. Other patents pending.

Do not exceed Gross Vehicle Weight Rating (GVWR) or Gross Axle Weight Rating (GAWR) including the blade and ballast. Refer to your Owner's Manual for proper GVWR and GAWR ratings for your vehicle.

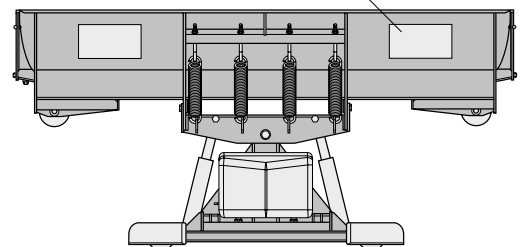
**READ  
OWNER'S  
MANUAL  
THOROUGHLY  
PRIOR TO  
OPERATING  
PLOW.**

 **BLIZZARD™  
CORPORATION**

Calumet, MI 49913

1011-6-99

Should the WARNING! label or any of the labels that came with your snowplow become hard to read or wear off, contact your local dealer or call our Customer Service Department at 1-888-680-8600 for replacements.



# ASSEMBLY INSTRUCTIONS

## Unpacking & Inspection

Your Blizzard Power Plow has been packaged to withstand transit and weather related damage. Fully inspect all components upon receipt of your plow. In the event of shipping damage or missing parts, immediately contact our Customer Service Department toll-free at 1-888-680-8600.

Begin unpacking and inspection in the following order:

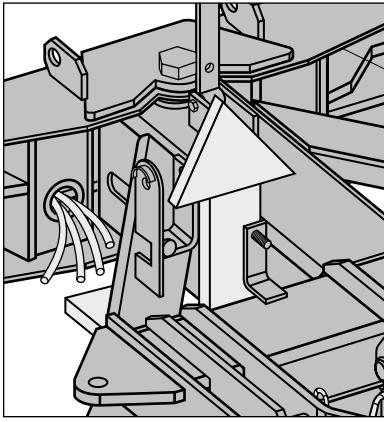
1. Remove packaging slip from the end panel of the pallet cover. Retain all documentation for your records.
2. Remove the polyethylene pallet cover from the crating.
3. All wood framing should be removed from the pallet for easy access to the snowplow.
4. Due to the odd shaped components and size of several assembly parts, various nylon ties and corrugates are used for scratch resistance and package orientation. Please remove these items prior to assembly.
5. Place the main blade assembly on a flat, level surface.

Once you have inspected all parts and removed all restraining and protective packaging materials, your snowplow is ready to be fully assembled.



### Pallet Cover End Panel

The tear resistant woven polyethylene pallet cover contains a moisture barrier to help protect all packaged components and keep out the most inclement weather during shipping and storage. The end panel of the pallet cover contains important information regarding the make, model, and year of the vehicle the enclosed undercarriage is to be installed on. The plow model number and the serial number of the snowplow are given together. The first three digits of the number indicated is always the plow model – 810 and the entire seven digit number make up the serial number. The packaging list is also attached to the end panel. Be sure to retain this list for your records.



Feed each group of hoses (four per side) through the 1-1/2" diameter holes in the pivot beam and up through the A-frame openings. Positioning the hoses through the pivot beam supports the hoses while the snowplow is in use and prevents them from dragging on the ground.

## Moldboard Assembly

1. Begin the moldboard assembly by positioning the PIVOT BEAM and A-FRAME near the connecting points at the rear of the blade between the two center support ribs. Feed the right and left group of HYDRAULIC HOSES protruding from the SLIDE BOX through the 1-1/2" diameter rubber grommet openings in the front face of the pivot beam.



**CAUTION:** The hoses inside of the slide box are installed such that they move laterally with the action of each wing. To avoid damaging the hose connections and the wing and slide box cylinders, pull approximately one foot of each hose grouping toward the center of the moldboard. Verify that there is approximately 12" of "slack" for each hose grouping. Reposition both 12" lengths back into the slide box – the hoses are now at a safe travel distance for operation.

Close the slide box by installing the SLIDE BOX ACCESS PLATES. Rest each grouping of hoses in the opening of the plates and position the "lip" of each plate in the bottom, inside edge of both slide box openings. Fasten each plate with two 1/4"-20 x 3/4" hex cap screws.

2. Position the pivot beam between the two support ribs until the connecting points on the beam align with those on the plow. Insert one 3/4"-10 x 3" hex head screw through each mounting hole and secure with a 3/4"-10 top lock nut. Tighten each nut until approximately two threads appear.



**CAUTION:** Do not over tighten hex head nuts! Binding may prohibit the pivot beam from moving properly on the plow.

3. Hook each EXTENSION SPRING to the 3/4" diameter receiving holes located on the pivot beam and connect the opposite end of the spring to their respective SPADE BOLTS. Install the four 5/8"-11 x 6-11/16" spade bolts through the EXTENSION SPRING MOUNTING ANGLE on the top rear of the blade. Secure each spade bolt by placing one 5/8" flat washer on the bolt and thread one 5/8"-11 nylon insert lock nut. Tighten each lock nut until light appears between the coils of the spring.
4. Install the flexible BLADE GUIDES at the end of each plow wing. Insert the 5/16"-18 x 1" hex head screw through the holes provided at the top of the wing reinforcement rib. Tighten all screws using the nylon insert lock nuts provided.



### Maximum Bolt Torque (Dry Conditions Only)

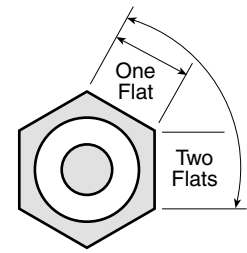
Diameter-Thread Pitch	Grade 8 (foot-pounds)
1/4"-20	11 ft-lbs
5/16"-18	24 ft-lbs
3/8"-16	44 ft-lbs
7/16"-14	70 ft-lbs
M12 x 1.75	88 ft-lbs
1/2"-13	107 ft-lbs
M14 x 2.0	140 ft-lbs
9/16"-12	154 ft-lbs
5/8"-11	211 ft-lbs
3/4"-10	376 ft-lbs
1"-08	900 ft-lbs

*Note: Use 25% less torque when lubricated. Check and re-tighten all fasteners after the first three hours of use. Periodically review all fasteners after the initial inspection.*

Congratulations! You have successfully completed the first stage of assembly for the Blizzard Power Plow Model 810. In the next section you will assemble the A-frame and the components that are attached to it.

# A-frame Assembly

1. Begin the assembly by positioning the A-frame so the factory-installed HYDRAULIC LIFT CYLINDER is visible. *Note: To aid in the installation, stand the plow up with the curve of the blade facing the ground.* Next, remove both of the plastic dust caps from the hydraulic cylinder ports. Attach one 7/16"-20 x 7/16"-20 45° ADJUSTABLE ELBOW O.R.B. ADAPTER to the driver's side port and one 7/16"-20 x 7/16"-20 MALE O.R.B. CONNECTOR ADAPTER to the passenger's side port. All of the hydraulic adapters can be found packaged with the manifold assembly. Hand tighten each adapter until snug, then torque approximately 1-1/2 to 2-1/2 flats. Reference the table to the right for proper torque specifications.
2. Once the adapters have been installed on the cylinder, connect the HYDRAULIC HOSES. The 45° adapter on the driver's side of the cylinder receives a 1/4" x 17" hose identified by a label containing the number 3. Connect the 45° angle on the hose to the hydraulic adapter on the cylinder. The male connector adapter on the passenger's side of the cylinder receives a 1/4" x 15" hose identified by a label containing the number 4. Tighten the 45° end of the hose to the hydraulic adapter on the cylinder.
3. Next, use a screwdriver to pull the hydraulic cylinder rod out from its base. Place one 1-1/4" diameter washer over the cylinder rod, followed by the 12" COMPRESSION SPRING and another 1-1/4" washer. Compress the coils approximately 2" and clamp the spring and washers in place using a pair of vise grips. This will help facilitate the draw latch installation.



Torque Table for 37° Adapters

Port Thread Size	Assembly Torque (foot-pounds)	Original Assembly (F.F.F.T.)
7/16-20	15 ± 1.0	2.5 ± 25
9/16-18	18 ± 2.0	2.5 ± 25

Torque Table for O.R.B. Adapters

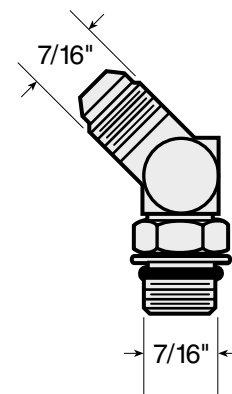
Port Thread Size	Assembly Torque (foot-pounds)	Original Assembly (F.F.F.T.)
7/16-20	15 ± 1.0	1.5 ± 25
9/16-18	25 ± 2.0	1.5 ± 25

F.F.F.T. = Flats From Finger Tight

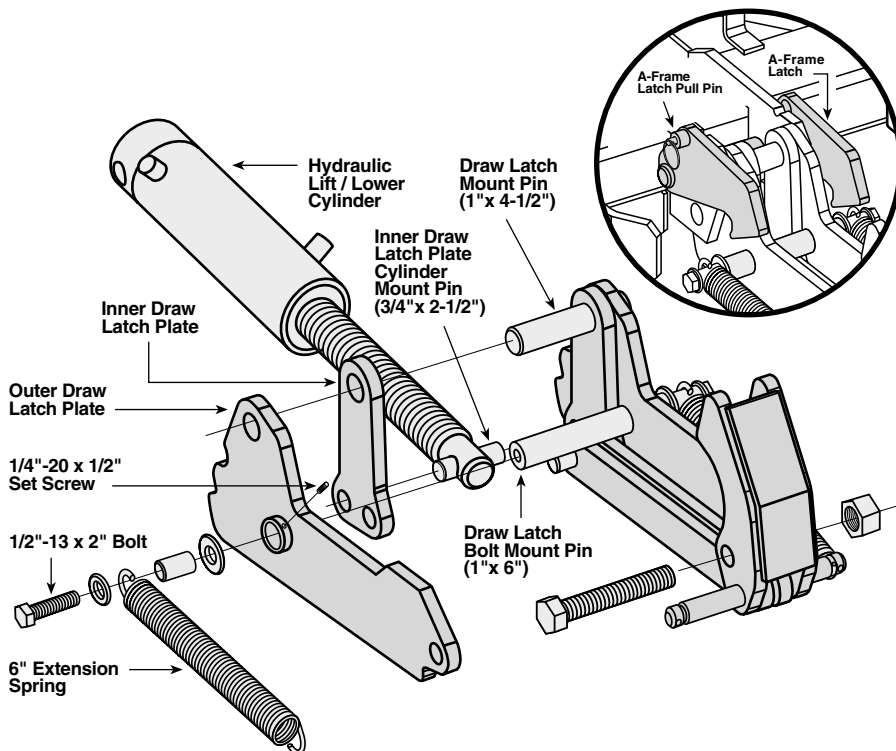
*Ex.) After threading a 7/16-20 O.R.B. adapter finger tight, torque the fitting approximately 1-1/2 flats (faces) for proper installation.*



Male O.R.B. Connector Adapter

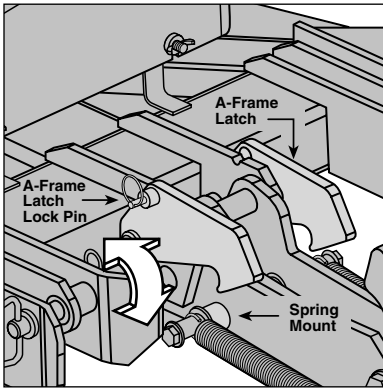


45° Adjust. Elbow O.R. B. Adapter

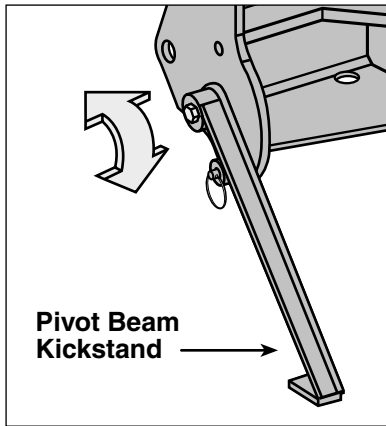


## Draw Latch Assembly

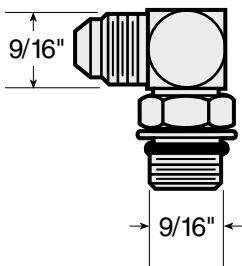
The draw latch consists of a series of interconnected plates and pins that attach to the A-frame and the hydraulic cylinder that raises and lowers the plow. The draw latch is also the most difficult component to install on the entire plow and may require the help of a second technician.



To mount the Power Plow, the A-frame latch should be lowered over the spring mount—this allows the draw latch to pull the plow into the undercarriage. Once the plow is safely attached to the undercarriage, rotate the A-frame latch counterclockwise until the lock pin snaps in place. The A-frame latch is only used to mount the plow.



The kickstand is mounted to the side of the pivot beam with one 9/16"-12 x 2-1/2" hex cap screw and top lock nut. To pivot the kickstand, simply pull the lock pin out and rotate the leg until the pin snaps into place.



90° Adjust. Elbow O.R.B. Adapter

- Begin the draw latch installation by first removing both of the 6" extension springs on the latch. Proceed to remove both 1/2"-13 x 2" bolts with washers and spacers from the DRAW LATCH BOLT MOUNT PIN. Once the springs and hardware have been removed, loosen the SET SCREW on the OUTER DRAW LATCH PLATE using a 1/8" Allen wrench and remove the draw latch bolt mount pin from the assembly.

Next, remove the 1" x 4-1/2" DRAW LATCH MOUNT PIN from the assembly. By removing this pin, the INNER DRAW LATCH PLATES can swing free. Proceed to remove the 3/4" x 2-1/2" INNER DRAW LATCH PLATE CYLINDER MOUNT PIN. Position the plates on either side of the lift/lower cylinder rod and insert the 3/4" x 2-1/2" pin through the plates and cylinder rod. *Note: The A-FRAME LATCH, located at the rear center of the A-frame, should be in the down position. Pull the A-FRAME LATCH PULL PIN out and rotate the latch clockwise if it is in the raised position.* Now that the cylinder is connected to the inner draw latch plates, rotate the draw latch assembly toward the draw latch mount holes on the A-frame. Align the holes in the outer draw latch plate with those of the inner draw latch plates and the A-frame. Secure the assembly to the A-frame by replacing the draw latch mount pin. Remove the vise grips from the cylinder rod. This will allow the compression spring to expand against the draw latch.

Rotate the A-frame latch counterclockwise until the A-frame latch pull pin locks into place. Next, replace the draw latch bolt mount pin. The pin should be evenly spaced on either side of the outer draw latch plates. Tighten the set screw to secure the pin in place. Complete the draw latch assembly by replacing the washers, spacers, extension springs and bolts on both sides of the draw latch bolt mount pin.

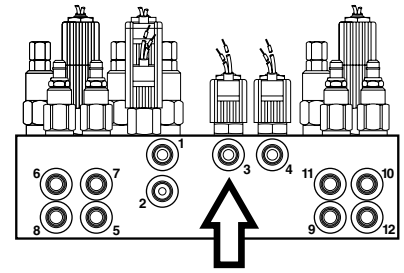
- Position each ANGLE CYLINDER with the rod end of the cylinder in the pivot beam and the hydraulic hose port facing away from the A-frame. Secure the cylinder to the pivot beam with one 3/4"-10 x 5" hex cap screw and one 3/4"-10 top lock nut. Extend each cylinder rod until the cylinder base mounting hole aligns with the hole on the A-frame angle cylinder bracket. At this point, insert one 3/4"-10 x 5" hex cap screw through the aligned holes and secure the screw with one 3/4" top lock nut. Repeat the same installation for the opposite angle cylinder.
- Remove each dust cap from both of the hydraulic angle cylinder ports and attach one 9/16"-18 x 9/16"-18 90° ADJUSTABLE ELBOW O.R.B. ADAPTER to each port. Angle each adapter toward the cutting edge and tighten approximately 1-1/2 flats. Connect the 3/8" x 24" hydraulic hose, labeled #1, to the driver's side angle cylinder adapter. Attach the 3/8" x 24" hydraulic hose, identified by a #2, to the passenger's side angle cylinder adapter. Be careful not to overtighten the hose connections.

Once you have completed the installation of the angle cylinder hoses, we will shift our attention to assembly of the manifold. The manifold, pump and plow electrical harness have been preassembled at the factory; however, the manifold contains several attachments that you will need to install prior to securing the assembly to the A-frame.



7. Each of the 12 HYDRAULIC HOSE PORTS on the MANIFOLD contain DUST CAPS. Replace each cap with the appropriate hydraulic adapter illustrated below or review the diagram on page 24.

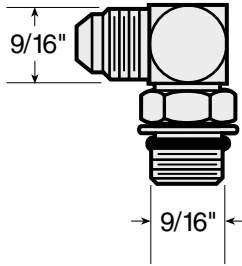
*Note: All ports are identified by a stamped number on the manifold. The numbers also identify the hydraulic functions which can be referenced on the label under the hydraulic pump and manifold cover (shown below).*



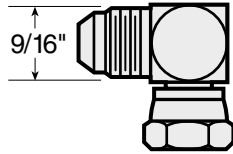
**Port #3 Contains A Check Valve with 3/64" Diameter Orifice**



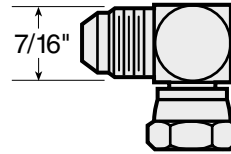
**CAUTION: Port #3 contains a CHECK VALVE & ORIFICE that restricts the returned hydraulic fluid for the float function. Verify that this item is in the port prior to attaching hydraulic adapters.**



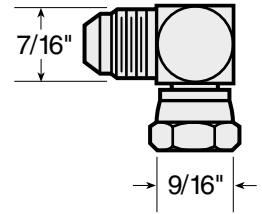
**90° Adjust. Elbow O.R.B. Adapter**  
(Port #1)



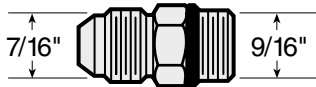
**90° Swivel Elbow Adapter**  
(Port #6, #11)  
(Port #2, #3)\*



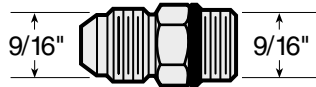
**90° Swivel Elbow Adapter**  
(Port #4, #8, #9, #10, #12)



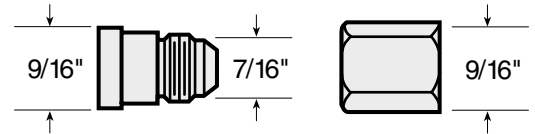
**90° Swivel Elbow Adapter**  
(Port #3)\*\*



**Male O.R.B. Connector Adapter**  
(Port #4, #5, #7, #8, #9, #10, #12)

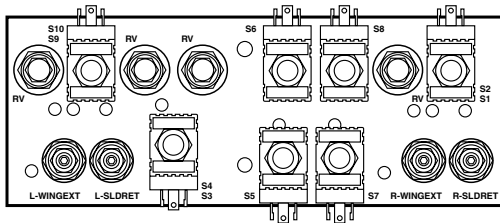


**Male O.R.B. Connector Adapter**  
(Port #6, #11)  
(Port #2)\*



**Tube Reducer & Swivel Nut**  
(Port #3)\*

## Sequencing Valve & Hydraulic Hose Identification Guide



### SEQUENCING VALVES

Sequence Valve Identification	Function
L-WINGEXT	Left Wing Cylinder Extend
L-SLDRET	Left Slide Cylinder Retract
R-WINGEXT	Right Wing Cylinder Extend
R-SLDRET	Right Slide Cylinder Retract

### HYDRAULIC HOSES

Port Identification	Function
1	Right Angle
2	Left Angle
3	Raise
4	Lower
5	Left Wing Retract
6	Left Wing Extend
7	Left Slide Box Retract
8	Left Slide Box Extend
9	Right Slide Box Extend
10	Right Slide Box Retract
11	Right Wing Extend
12	Right Wing Retract

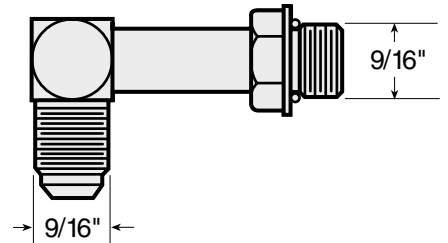
NOTE: Energize the following solenoids for the functions:

S1	Right Slide Box Retract
S2	Right Slide Box Extend
S3	Angle Left
S4	Angle Right
S5 & S7	Flatt
S6 & S7	Lift
S5 & S8	Lower
S9	Left Slide Box Retract
S10	Left Slide Box Extend

**BLIZZARD CORPORATION**

Calumet, MI 49913

1023-6-99



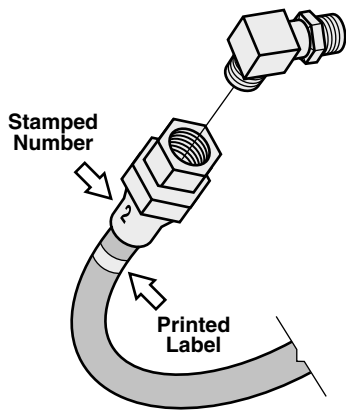
**Male Extra Long Elbow Adapter**  
(Port #2)\*\*

NOTE: Two different hydraulic adapter kits were sent with the Power PLOW during the season.

\* The first kits shipped (P/N 60070) contained two additional 9/16"-18 90° Swivel Elbow Adapters, one additional 9/16"-18 x 9/16"-18 Male O.R.B. Connector Adapter, and a Tube Reducer with Swivel Nut.

\*\* The second kits shipped (P/N 60075) contain one 7/16"-20 x 9/16"-18 90° Swivel Elbow Adapter and one Male Extra Long Elbow Adapter.

The Sequencing Valve & Hydraulic Hose Identification Guide (left) is located under the pump and manifold cover.



All of the hoses shipped with the snowplows contain either a stamped number on the sleeve or a printed label applied to the hose. All numbers, stamped or printed, correspond with the stamping of the ports on the manifold.

8. Next, align the mount holes in the pump with the holes in the hinged bracket, located on the A-frame. *Note: To help facilitate the pump mount, first angle the hinged bracket as needed and tighten the bracket hardware, locking it in place.* Secure one 3/8"-16 x 3/4" hex cap screw and 3/8" flat washer through the top mount hole in the bracket and into the pump. Insert one 3/8"-16 x 1-1/2" threaded stud and jam nylon insert lock nut through the bottom mount hole in the bracket and into the pump.
9. Once the pump and manifold assembly is in place, connect the hydraulic hoses to their respective adapters on the manifold. Remember, the labeling on the hydraulic hoses correspond with the stamped numbers on the manifold.

Begin installing the hoses with the passenger's side slide box extend hose (#9). Continue installing hoses # 5, 12, 8, 11, 7, 10 and 6. Installing the hoses in this order will provide the best clearance for securing each hose to the manifold. *Note: All hoses should be routed through the triangular openings in the A-frame. Hoses #8 and #12 should be positioned outside of the manifold mount brackets.*

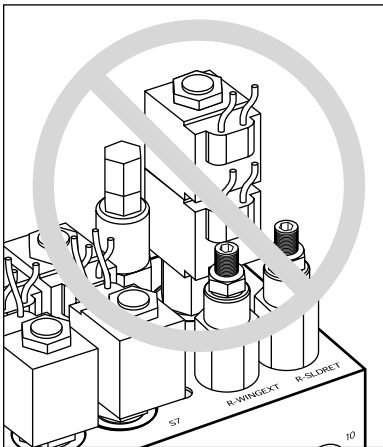
Run both angle cylinder hoses (#1 and #2) under the A-frame angle and through the opening in the A-frame to their respective manifold ports. Next, make the connection to Port #3 with the driver's side raise cylinder hose. Attach the straight end of the hose to the 7/16"-20 x 9/16"-18 90° swivel elbow on the manifold. Complete the hose installation by connecting the passenger's side lower cylinder hose to Port #4. Loop the hose through the opening in the A-frame and connect the straight end of the hose to the 7/16"-20 90° swivel elbow adapter.

10. Complete the A-frame assembly by securing the manifold to the A-frame. Remove both 3/8" flat washers, 3/8" split lock washers and 3/8"-16 x 1" hex cap screws from the manifold and align the mount holes with the A-frame brackets. Properly replace and tighten all hardware.



**CAUTION:** When installing the manifold between the mount brackets on the A-frame, hold the manifold at the sides of the block. Never handle the manifold by the wire lead coils. Doing so can cause a solenoid cartridge to bend, causing the cartridge to stick when activated.

Congratulations! You have successfully completed half of the installation. Don't quit now! You're nearly out of the garage!



When installing the manifold between the mount brackets on the A-frame, **DO NOT** handle the manifold by the wire lead coils. The solenoid cartridges can bend, causing them to stick when activated. Always carry the manifold by the sides of the aluminum block.

## Electrical Assembly - Plow Harness

For your convenience, both the BLACK GROUND WIRE from the PLOW WIRE HARNESS and the SOLENOID GROUND WIRE HARNESS have been grounded to the manifold assembly.

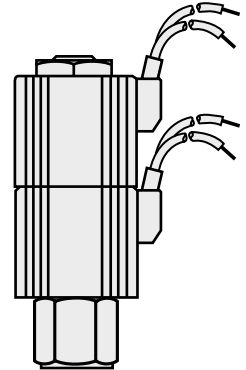
1. Begin the installation by connecting the RED POWER WIRE to the PUMP motor terminal using the hardware provided on the pump.
2. Next, attach the POWER HITCH CONNECT/DISCONNECT TOGGLE SWITCH to the connector on the plow harness. Remove the lock washer and hex jam nut from the switch and insert it into the mounting bracket. Tighten the lock washer and jam nut until the switch is firmly in place.
3. Continue the harness installation by connecting the FEMALE ELECTRIC CONNECTOR on the harness to the MALE ELECTRIC CONNECTOR found on the HEAVY-DUTY COIL WIRE LEAD HARNESS attached to the manifold. Perform the same connection at the solenoid ground wire harness and coil wire lead harness.
4. Finalize the harness installation by neatly positioning the DIODE BOARD and loose wiring behind the toggle switch. Position the wire harness braid in the notch on the switch bracket and secure it with a nylon tie.
5. To install the PUMP & MANIFOLD COVER, position it over the rear brackets on the A-frame and align the notches in the cover with the welded screws on the bracket. Secure the cover with two 3/8" washers and wing nuts. Verify the cover is positioned behind the toggle switch mount bracket. Pop the front of the cover on the threaded stud and secure it with one 3/8" washer and wing nut.

Congratulations! You have just completed building the finest snowplow available! However, the vehicle wire harness still needs to be installed. That is the focus of the second half of the electrical assembly instruction.

Coil Orientation

Top	Bottom
S1	S2
S3	S4
S9	S10

S1 & S2, S3 & S4, and S9 & S10 are all paired solenoids. Review the label under the pump and manifold cover for the proper location.



## Electrical Assembly - Vehicle Harness



**CAUTION:** Always perform the vehicle wire harness assembly with the vehicle off and the keys out of the ignition. Use caution when testing the electrical wires for the vehicle's headlight functions.

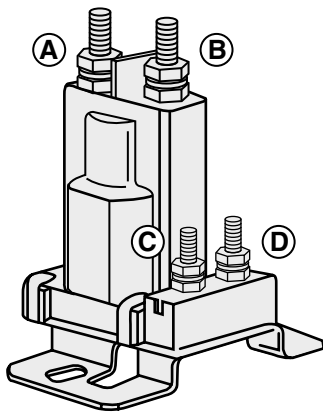
1. Begin the installation of the electrical harness under the hood. Insert the WHITE POWER CONNECTOR & RED POWER WIRE (with FUSE) end of the harness through the driver's side fire wall access panel into the vehicle cab. *Note: You may need to widen an opening or cut access to the cab interior to facilitate the assembly.*
2. Loosely position the remaining portion of the harness over the driver's side fender well and in front of the radiator core support. Position both of the large, gray VEHICLE HEADLIGHT CONNECTORS near the truck headlights and the smaller, black PLOW HEADLIGHT CONNECTORS near the grill of the vehicle.

## Vehicle Headlight Adapter Kits

62010	1980 & Older, 1983-1993 Dodge 1995-1996 Chevrolet/GMC & Ford
62011	1987-1992 Ford, 1991-Present Dodge
62012	1993-Present Ford
62013	1990-1999 GMC, 1991-1999 Chevrolet (Except '99 Chevrolet Silverado & '99 GMC Sierra)
62014	1999-2000 Chevrolet Silverado & GMC Sierra with Daytime Running Lights
62015	1989 Chevrolet
62050	2000 Dodge
62051	1980 & Older Chevrolet/GMC, Dodge

- Proceed to remove the front directional light assembly on the driver's side of the vehicle. Feed the VIOLET, turn light wire and GRAY, run light wire from the wire harness through the opening in the directional light housing. At this point, use a test light or ohm meter to determine the proper wires in the vehicle's electrical system to splice into. Once you have identified the proper wires, position one end of the turn or run light wire into a SPLICE LOCK CONNECTOR provided. Attach the vehicle wire to the opposite side of the splice lock connector. Complete the splice by pinching both wires together and locking the connector. Repeat the splice procedure for the remaining wire. The passenger's side directional light assembly requires the same installation; however, only one wire, the PINK, turn light, needs to be spliced.
- Connect the vehicle headlights to the vehicle wire harness using a headlight adapter kit. Due to differences in the construction of the adapter kits and the various make and model vehicles you will be servicing, the headlight adapter kits are not packaged with your snowplows. Review the list of available light adapters to the left. To place an order for headlight adapter kits, contact our Customer Service Department at 1-888-680-8600.

Begin the adapter kit installation by removing the existing vehicle headlight connector from the headlight. Attach the HEADLIGHT ADAPTER CONNECTOR to the existing vehicle headlight connector. Next, plug the BLACK, FIVE-PIN CONNECTOR on the headlight adapter into the gray, five-pin connector on the vehicle wire harness. Lastly, plug the HEADLIGHT ADAPTER CONNECTOR into the vehicle headlight receptacle. *Note: If more than one plug is present, match the colors of each connector (ie gray to gray, black to black, Chevrolet daylight running is clear to gray).* Repeat the installation for the opposite headlight.



## Heavy-Duty Power Contactor

There are four wires that need to be attached to the power contactor:

- 72" Red Power Battery Wire
- Vehicle Wire Harness Red Power Wire
- 24" Black Ground Wire
- Brown Pump Solenoid Activation Wire

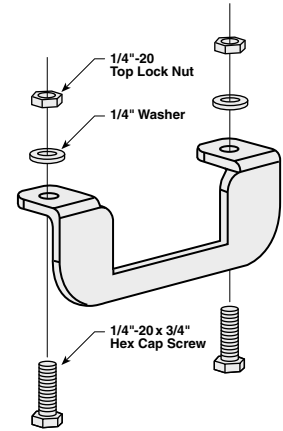
- After the headlight adapters have been installed, attach the POWER CONTACTOR to the driver's side wheel well or engine fan guard using two 12-14 x 3/4" hex washer self-drilling screws. *Note: Some model vehicles provide mount locations for accessory components.* Connect the 24" BLACK GROUND WIRE to either small terminal on the contactor and attach the opposite end to the vehicle with one #10 x 1/2" hex washer self-drilling screw. Locate the BROWN PUMP SOLENOID ACTIVATION WIRE on the vehicle wire harness and position the eyelet over the remaining small terminal on the contactor. Secure it with the washer and nut provided.
- Next, connect the BLACK VEHICLE WIRE HARNESS GROUND WIRE to the negative terminal on the vehicle's battery. *Note: The black ground wire may not be long enough to reach the battery on some vehicles. Ground the wire to the engine if this should occur.* The VEHICLE WIRE HARNESS RED POWER WIRE connects to either large terminal on the contactor. Complete the electrical connection by attaching the remaining RED POWER BATTERY WIRE to the open terminal on the contactor. *Note: Depending on the location of the battery, you may need to shorten the red power wire. Upon determining the proper length, crimp the provided 3/8" END RING TERMINAL on the wire and connect it to the positive terminal on the battery.*
- Once the connections to the battery are secured, proceed to fasten the SPLIT LOOM TUBING to the vehicle. Safely route all harness lengths around the engine components and attach them to the vehicle with nylon ties. Extend the PLOW HEADLIGHT CONNECTORS through the grill of the vehicle and position the HARNESS PLUG and WEATHER CAP near the bumper.



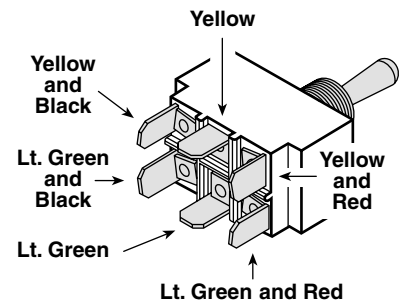
**CAUTION: Do not fasten the wire harness to areas that come in contact with moving engine parts or possess extreme heat. The harness could become tangled and/or melt causing electrical failure and vehicle damage.**

8. Locate a convenient position to mount the VEHICLE WIRE HARNESS PLUG MOUNT BRACKET near the driver's side bumper of the vehicle. This bracket will hold the plug to the vehicle when the snowplow is removed from the undercarriage. Position the bracket into the slot provided on the plug. Mount the bracket using two 1/4"-20 x 3/4" hex cap screws and secure with 1/4" washers and top lock nuts.
9. Return to the driver's side cab interior to install the remainder of the vehicle wiring harness. Find an accessible location for the PLOW HEADLIGHT SWITCH & BRACKET under the dashboard. Install the headlight bracket using two self-drilling screws. Insert the headlight toggle switch through the bracket and secure with the hardware provided. Attach all 6 color coded wires from the harness to the backside of the switch (Refer to diagram at the right for proper installation). Connect the RED POWER WIRE (with 10 AMP FUSE) to a SWITCHED POWER SOURCE with a minimum of 10 amps. *NOTE: The red power wire MUST be fused and switched on and off with ignition. Secure all loose wires under the dashboard.*
10. Next, install the LIGHT TOWER. Position the tower arms into the receiving pockets located on the undercarriage push beam. (Review the proper undercarriage installation guidelines for your vehicle found near the back of the manual.) Align the mounting holes in the push beam with those on the light tower and insert two 1/2"-13 x 1-1/4" hex head cap screws. Secure the screws with 1/2" washers and top lock nuts.
11. Proceed to install the PLOW HEADLIGHTS. Align one HEADLIGHT BALL STUD MOUNT ADAPTER on the light tower bar with the mounting hole and insert the threaded stud through each. Secure the headlight with one 1/2" split lock washer and hex nut. *Note: All snowplows are shipped with two BLACK DOME PLUGS that install at either end of the light tower. For secure placement, apply a bead of silicone around the perimeter of the plug prior to installation on the light tower.* Connect the terminals from the plow lights to the terminals on the vehicle wire harness. Repeat the installation for the opposite headlight.
12. Next, position the ROCKER SWITCH CONTROL STATION on the front radius of the seat. Wrap the VELCRO STRAP around the bench, through the 2" metal D-ring and fasten. Finally, connect the white power connector from the vehicle wire harness to the connector on the control station. The power switch on the control station should be in the "OFF" position.

This completes the electrical assembly installation for the vehicle wire harness. You are now ready to perform all of the test functions on the snowplow.

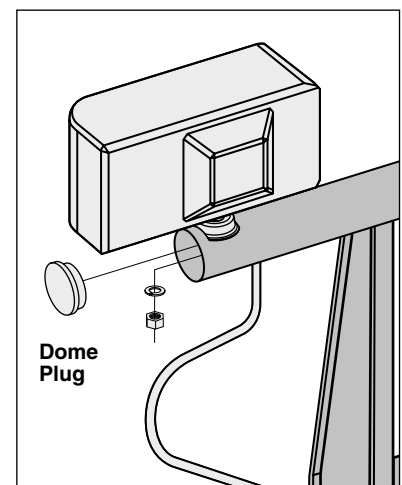


Vehicle Wire Harness Plug Mount Bracket

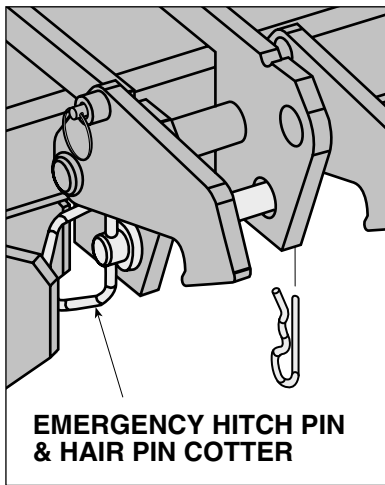


Vehicle / Plow Headlight Toggle Switch

Connect the wires from the vehicle harness to the spades on the back of the Vehicle/Plow Toggle Switch. Review the diagram above for proper orientation of the color-coded wires.



Apply a thin bead of silicone around the inside perimeter of the molded nylon dome plugs prior to capping the light tower ends. The silicone will help retain the plug inside of the light tower mount tube.



In the event you should lose hydraulic power while snowplowing, raise the snowplow into a pile of snow and insert the emergency hitch pin. The pin will lock the plow in a temporary raised position until proper service can be performed to restore hydraulic power.



## Testing The Snowplow

1. Fill the HYDRAULIC PUMP FLUID RESERVOIR with automatic transmission fluid until it is 3/4" from the top of the tank. Replace the cap on the reservoir. Proceed to remove the weather caps from each of the plow and vehicle wire harnesses and connect the plugs. Turn the POWER SWITCH on the control station in the cab to the "ON" position and start the vehicle. You now have power to the snowplow. Once all of the hydraulic functions have been executed, the system will have been filled with approximately 4-1/2 quarts of automatic transmission fluid.
2. Raise the DRAW LATCH on the snowplow by pushing and holding the toggle switch on the A-frame upward into the "CONNECT" position. Notice the action of the fluid in the reservoir. By activating the initial hydraulic function, the fluid begins to fill the system. Push and hold the toggle switch in the "DISCONNECT" position, the draw latch will lower. Refill the reservoir until the fluid is 3/4" from the top of the tank.
3. Position the vehicle such that the draw latch is below the push beam and the mounting points on the A-frame are in line with the mounting points on the undercarriage. Pull out the A-FRAME LATCH PIN and rotate the A-FRAME LATCH clockwise until the latch is resting on the DRAW LATCH BOLT MOUNT PIN. Move the snowplow in position by activating the draw latch CONNECT switch and release.



**WARNING: Always use caution when operating the draw latch CONNECT/DISCONNECT switch. Keep your hands and feet away from the operation of the draw latch and the main blade. The action of the draw latch moves the snowplow in position for proper attachment to the vehicle. Failure to follow this caution may result in serious injury or death.**


The draw latch will raise until it hits the push beam and the DRAW LATCH FINGERS will pull the plow into the vehicle. The mounting points on the plow and vehicle are now positively aligned. Rotate the A-frame latch counterclockwise until the latch is in the raised position. Insert the two HITCH PINS through the mounting holes on the A-frame and secure each with one hair pin cotter. The snowplow is now securely mounted to the vehicle.

4. Return to the interior of the vehicle. With the plow securely in place, you can now execute the remaining functions of the snowplow. The power supply on the control station should be in the "ON" position. Next, raise the plow to its maximum height by pushing and holding the "RAISE" rocker switch on the control station. Initiate the driver's side wing by pushing and holding the "LEFT WING EXTEND" rocker switch until the wing pivots forward. Notice the staggered pace the wing extends. The hydraulic fluid is filling the hose and replacing the air in the system. Push and hold the "LEFT WING RETRACT" rocker switch to return the wing. Continue testing the remaining rocker switch functions. Monitor the fluid level in the reservoir and fill to 3/4" from the top of the tank if needed. Also, look for any automatic transmission fluid leaks around the manifold, pump, hydraulic hoses and all cylinders.
5. Lastly, check that the vehicle and plow headlights are in proper working condition including the turn signals. If necessary, adjust the plow headlight beams with the plow in the raised position.

Congratulations on a successful assembly and installation! Once all of the blade and electrical functions have been tested your Blizzard Power Plow is ready for action. Should you need additional support during a plow assembly or undercarriage installation, contact our Customer Service Department toll-free at 1-888-680-8600.

# MOUNTING & DISMOUNTING INSTRUCTIONS

Prior to operating your Power Plow, review the Mounting & Dismounting Instructions label at the driver's side rear of the moldboard (shown below).

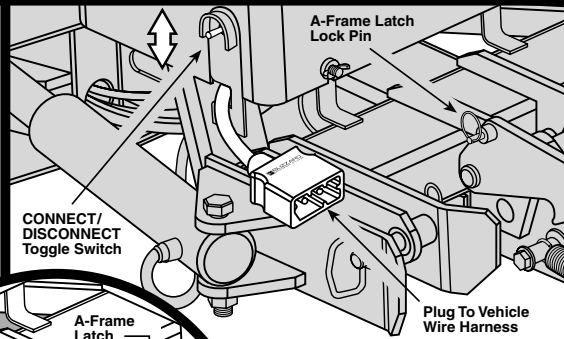


**POWER HITCH**  
TM

## MOUNTING & DISMOUNTING INSTRUCTIONS

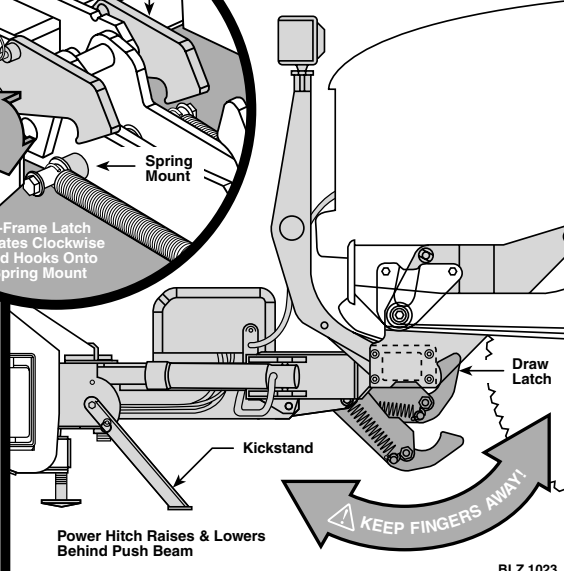
### MOUNTING

1. Position vehicle close to the plow and align mounting points on the undercarriage and A-frame. Verify that the plow kickstand is in the lowered position. Turn vehicle ignition off.
2. Turn power supply switch on the main plow control unit in the vehicle to the "OFF" position.
3. Remove protective weather caps and make electrical connection at the plow and vehicle.
4. Turn the vehicle ignition and the power supply switch on the control unit to the "ON" position. Pull the A-frame latch lock pin outward and verify that the A-frame latch lowers over the draw latch extension spring mount.
5. Activate the Power Hitch on the A-frame by pushing and holding the "CONNECT/DISCONNECT" switch (on the pump cover housing) upward. **CAUTION: Keep fingers away from plow and truck mounting points. Power Hitch will automatically pull the plow into the receiving points on the truck when activated.** Insert both hitch pins through the positively aligned holes on the plow and undercarriage and secure each with a hair pin cotter.
6. With the plow securely mounted, slightly lower the Power Hitch to relieve tension on the A-frame latch, pull the latch lock pin and raise the A-frame latch until it locks into position. Raise the Power Hitch and verify that the draw latch is fully engaged behind the push beam on the vehicle. Rotate the kickstand counterclockwise until it locks into place. The plow is now properly mounted and ready to operate.



### DISMOUNTING

1. Lower the plow on a flat, level surface to dismount. Turn vehicle ignition off.
2. Pull the kickstand lock pin outward and rotate the kickstand clockwise. Release the pin to lock kickstand in place. Remove both hitch pins from the A-frame and undercarriage.
3. Turn the vehicle ignition and the power supply switch on the control unit to the "ON" position. Activate the Power Hitch by pushing and holding the "CONNECT/DISCONNECT" switch downward. **CAUTION: Keep fingers away from plow and truck mounting points.** Verify that the draw latch is fully disengaged from behind the push beam on the vehicle.
4. Turn power supply switch on the main plow control unit in the vehicle to the "OFF" position.
5. Disconnect wire harnesses at the plow and vehicle. Replace protective weather caps.



Should the Mounting & Dismounting Instructions label or any of the labels that came with your snowplow become hard to read or wear off, contact your local dealer or call our Customer Service Department at 1-888-680-8600 for replacements.

MOUNTING & DISMOUNTING INSTRUCTIONS | 13

Maintenance Schedule	
Maintenance Performed	Date

# REGULAR MAINTENANCE

Your Blizzard Power Plow Model 810 Snowplow has been designed for years of rugged, dependable service with low maintenance. To ensure proper working condition, follow the maintenance guidelines below and on the next page.



**CAUTION: Always follow the maintenance guidelines in a timely fashion. Failure to observe maintenance guidelines may result in poor snowplow operation, increased component wear or part failure.**

Routinely inspect the following items – perform maintenance as needed:

- 1.) All fasteners, pins, nuts and bolts for tightness. See the recommended maximum bolt torque chart on page 4.
- 2.) All hydraulic hoses and hydraulic hose adapters for wear and leaks.
- 3.) All hydraulic cylinders for leaks; inspect rod ends for corrosion and pitting.
- 4.) Cutting edges and plow shoes for wear.
- 5.) Clean and lubricate all electrical plugs, headlight connections, ground and battery cables, solenoid connections and switch connections to prevent corrosion. Apply white lithium grease at least once a month or every 75 hours of plow operation.
- 6.) Lubricate the inner slide box with liquid white lithium grease. This will provide free travel for both slide boxes.
- 7.) Clean and cover deep scratches or exposed metal with white Blizzard touch-up paint. Contact your local dealer for availability.
- 8.) Check the automatic transmission fluid level in the hydraulic pump fluid reservoir. Fill the fluid to within 3/4" from the top of the reservoir. Do not exceed this level. Never mix different types of fluids. Contact your local dealer for proper fluid identification.



# STORING YOUR SNOWPLOW

## Placing Your Plow In Storage

- 1.) Position your plow on a flat, level surface for storage. Follow the dismantling procedure illustrated on page 13.
- 2.) Apply white lithium grease to all electrical plugs and connections. Clean and install all dust caps.
- 3.) Lubricate all exposed hydraulic cylinder rod ends with liquid white lithium grease.
- 4.) Touch-up all rust spots or chipped paint with white Blizzard paint. Contact your local dealer for availability.
- 5.) Remove and properly discard the fluid in the pump reservoir. Clean the pump filter and replace the automatic transmission fluid to within 3/4" from the top of the reservoir. Changing the fluid annually will prolong the life of your pump and manifold.
- 6.) Cover the snowplow with a tarp if stored outside. This will protect your plow from sun fading and inclement weather which can lead to accelerated corrosion.

## Removing Your Plow From Storage

- 1.) Perform all regular maintenance indicated on the previous page.
- 2.) If you have not replaced the ATF in the pump reservoir, it is strongly encouraged that you do so prior to operating your plow.
- 3.) Follow the mounting procedure illustrated on page 13.
- 4.) Once the plow has been properly mounted to the vehicle and all electrical connections have been made, initiate all of the functions of the snowplow. Monitor the fluid level in the reservoir and fill to 3/4" from the top of the tank if needed.

Annual Fluid Replacement	
Type & Quantity of Fluid Replaced	Date

# PLOW SPECIFICATIONS

## Moldboard

Length ..... 8'  
 Thickness ..... 12 Gauge  
 Height ..... 29"  
 Reinforcement ..... 4 Ribs @ 1/4"  
 Cutting Edge ..... 1/2" x 6" (1080)  
 Finish ..... Powder Coat - White

## Wings

Length ..... 12"  
 Thickness ..... 12 Gauge  
 Height ..... 29"  
 Reinforcement ..... 1 Rib each @ 1/4"  
 Cutting Edge ..... 1/4" x 10" (T1)  
 Finish ..... Powder Coat - White

## Trip Mechanism

Trip Spring Type ..... (4) 3/8" Hooked Extension  
 Trip Spring Adjustment ..... 5/8"-11 x 6-11/16" Spade Bolt

## A-frame

Material ..... Rec. Tube & Channel Type  
 Hitch Pins ..... 3/4" x 4-3/4" Yellow Zinc  
 Finish ..... Powder Coat - Black

## Pump

Construction ..... Steel Housing w/Clear Plastic Tank  
 Type ..... Internal Gear Pump  
 Motor ..... 12 V Starter  
 Volume Per Minute ..... 2.1 GPM @ 1500 PSI  
 Weight ..... 32 lb.  
 Mount ..... A-frame Install w/Hex Head Screws  
 Reservoir Capacity ..... 1.5 quarts  
 Controls ..... Rocker Switch

## Manifold

Construction ..... Clear Anodized Aluminum  
 Ports ..... 12  
 Cartridge Valves ..... 7  
 Sequence Valves ..... 4  
 Relief Valves ..... 4  
 Weight ..... 23 lb.  
 Mount ..... A-frame Install w/Hex Head Screws  
 Maximum Flow Capacity ..... 3.5 gpm

## Cylinders

*Angle Cylinders* ..... 2  
 Operating Speed ..... 3.5 sec.  
 Stroke ..... 10"  
 Ram Diameter ..... 1-3/4"  
 Bore Diameter ..... 2"

*Lift Cylinder* ..... 1  
 Operating Speed ..... 3.0 sec.  
 Stroke ..... 4-21/32"  
 Ram Diameter ..... 1-1/4"  
 Bore Diameter ..... 2-1/2"

*Slide Box Cylinders* ..... 2  
 Operating Speed ..... 2.0 sec.  
 Stroke ..... 12"  
 Ram Diameter ..... 1"  
 Bore Diameter ..... 1-1/2"

*Wing Cylinders* ..... 2  
 Operating Speed ..... 1.5 sec.  
 Stroke ..... 2"  
 Ram Diameter ..... 1-1/8"  
 \*Bore Diameter ..... 2"

## Plow Headlights

Type ..... Low Profile w/Turn Signals  
 Measurements ..... 10-3/4" W x 5"H x 5-3/2"D  
 Housing ..... Plastic Composite  
 Mount ..... Adjustable Ball Type  
 Bulb Type ..... High/Low Sealed Beam Halogen, 12V Rect.  
 Switch Type ..... Dash Mount, Toggle

## Miscellaneous

Plow Weight ..... Approx. 870 lb.  
 Compact Plow Width ..... 8'  
 WidePass Plow Width ..... 10'  
 BucketBlade Plow Width ..... 9'-3"  
 Mount Mechanism ..... Hydraulic Draw Latch  
 Adjustable Plow Shoes ..... 2  
 Standard Control Station ..... Rocker Switch  
 Optional Control Station ..... Joystick/Rocker Switch

\*Late season snowplows are shipped with wing cylinders that have a 1-3/4" bore diameter.



## MODEL 810 PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1	52050	1	Moldboard
2	51045	1	Wing Weldment - Driver's Side
3	50060	1	Slide Box Weldment - Driver's Side
4	51046	1	Wing Weldment - Passenger's Side
5	50061	1	Slide Box Weldment - Passenger's Side
6	51011	2	Wing Snow Shield
7	61213	2	#11 Aluminum Buttonhead Rivet
8	51047	1	Wing Cutting Edge Weldment (T1) - Passenger's Side
9	52051	1	Moldboard Cutting Edge (1080)
10	51048	1	Wing Cutting Edge Weldment (T1) - Driver's Side
11	61023	9	1/2"-13 x 5-1/2" Flat Head Socket Cap Screw
12	61022	2	1/2"-13 x 4-1/2" Flat Head Socket Cap Screw
13	61021	2	1/2"-13 x 3-1/2" Flat Head Socket Cap Screw
14	61025	15	1/2"-13 Grade 8 YZ Hex Nut
<b>15A</b>	<b>61049</b>	<b>2</b>	<b>Plow Guide Assembly: (1) - 15 &amp; 16, (2) - 17 &amp; 18</b>
15	61113	2	Plow Guide Tip, Black
16	61050	2	27-1/4" Plow Guide, Red
17	61051	4	5/16"-18 x 1" Grade 5 Z Hex Head Cap Screw
18	61052	4	5/16"-18 Z Nylon Insert Lock Nut
19	51009	2	3/4" x 9" Wing/Slide Box Pivot Pin
20	50013	2	3/4" x 3-3/8" Hydraulic Cylinder Rod End Pin - Wing Angle
21	60090	2	Hydraulic Cylinder - Wing Angle
22	61028	14	1/4" x 1-1/4" Spring Pin
23	50012	2	3/4" x 4" Hydraulic Cylinder Base End Pin - Wing Angle
24	50011	2	5/8" x 4" Hydraulic Cylinder Rod End Pin - Slide Box Extend/Retract
25	60031	1	Hydraulic Cylinder - Slide Box Extend/Retract, Passenger's Side
26	61198	2	5/8" DIA. x 1-1/8" Rubber Cap, Black
27	52012	2	5/8" x 7-5/16" Hydraulic Cylinder Base End Pin - Slide Box Extend/Retract
28	61030	4	1/8" DIA. x 2-5/8" Z Hair Pin Cotter
29	60060	1	Hydraulic Cylinder - Slide Box Extend/Retract, Driver's Side
30	60008	2	7/16"-20 x 7/16"-20 90° Adjustable Elbow O.R.B. Adapter
31	60097	1	1/4" x 34" Hydraulic Hose (#9) - Slide Box Extend, Passenger's Side
32	60098	1	1/4" x 42" Hydraulic Hose (#10) - Slide Box Retract, Passenger's Side
33	60004	3	7/16"-20 x 7/16"-20 Male O.R.B. Connector Adapter
34	60099	1	3/8" x 84" Hydraulic Hose (#11) - Wing Extend, Passenger's Side
35*	60006	4	9/16"-18 90° Swivel Elbow Adapter
36**	60007	4	9/16"-18 x 9/16"-18 Male O.R.B. Connector Adapter
37	60100	1	1/4" x 88" Hydraulic Hose - Str./45° (#12) - Wing Retract, Passenger's Side
38	60009	7	7/16"-20 90° Swivel Elbow Adapter
39	60003	9	7/16"-20 x 9/16"-18 Male O.R.B. Connector Adapter
40	60094	1	1/4" x 84" Hydraulic Hose (#5) - Wing Retract, Driver's Side
41	60095	1	3/8" x 84" Hydraulic Hose (#6) - Wing Extend, Driver's Side
42	60016	1	1/4" x 40" Hydraulic Hose (#7) - Slide Box Retract, Driver's Side
43	60096	1	1/4" x 34" Hydraulic Hose - Str./90° (#8) - Slide Box Extend, Driver's Side
<b>44A</b>	<b>61130</b>	<b>2</b>	<b>Slide Box Access Plate Assembly: (1) - 44 &amp; 45</b>
44	61100	2	9-3/4" Trim-Lok
45	52014	2	Slide Box Access Plate
46	61037	6	1/4"- 20 x 3/4" Grade 8 YZ Hex Cap Screw
47	61215	4	1/4"- 20 U-Nut
48	61099	4	3/8" x 2-5/16" O.D. x 14-1/2" Extension Spring
49	61187	4	5/8"-11 x 6-11/16" Grade 8 Z Clear Chromate Spade Bolt
50	61064	4	5/8", 1-5/16" O.D., 21/32" I.D. YZ SAE Mil Carb High-Strength Washer
51	61188	4	5/8"-11 Nylon Insert Lock Nut - Type NE
<b>52A</b>	<b>61220</b>	<b>2</b>	<b>Heavy-Duty Plow Shoe Assembly: (1) - 52, 53, 55, (18) - 54</b>
52	61221	2	Cast Iron Heavy-Duty Plow Shoe (8-3/8" Shaft)
53	61102	2	1-5/8" O.D., 1-1/8" I.D. x 1-1/2" YZ Spacer
54	61101	36	1", 1-3/4" O.D., 1-1/16" I.D. Z Flat Washer
55	61103	2	1/2" x 1-3/4" Linch Pin
56	61216	1	9/16"-12 x 2-1/2" Grade 8 YZ Hex Cap Screw
57	52039	1	Kickstand Weldment
58	61058	1	9/16"-12 Grade C Z Top Lock Nut
59	41030	1	Pivot Beam Weldment
60	61003	2	3/4"-10 x 3" Grade 8 YZ Hex Cap Screw
61	61006	8	3/4"-10 Grade C Z Top Lock Nut
62	61002	4	3/4"-10 x 5" Grade 8 YZ Hex Cap Screw
63	61131	1	1"-8 x 9" Grade 8 YZ Hex Head Cap Screw
64	61008	1	1"-8 Grade C Z Top Lock Nut
65	60029	2	Hydraulic Cylinder - Plow Angle
66	60005	3	9/16"-18 x 9/16"-18 90° Adjustable Elbow O.R.B. Adapter
67	60091	1	3/8" x 24" Hydraulic Hose (#1) - Plow Angle, Driver's Side
68	60011	1	3/8" x 24" Hydraulic Hose (#2) - Plow Angle, Passenger's Side
69	61005	1	3/4"-10 x 6" Grade 8 YZ Hex Cap Screw
70	60092	1	1/4" x 17" Hydraulic Hose - Str./45° (#3) - Plow Raise/Lower, Extend
71	60002	1	7/16"-20 x 7/16"-20 45° Adjustable Elbow O.R.B. Adapter

*Note: The reference numbers listed identify parts shown in the illustrations on pages 21-25 & 28. These numbers are specific to these illustrations only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.*

*\* 9/16"-18 90° Swivel Elbow Adapter (P/N 60006) - 6 total quantity, replaces items #125 & #126 shipped in early season snowplows.*

*\*\* 9/16"-18 x 9/16"-18 Male Connector Adapter (P/N 60007) - 5 total quantity, replaces item #126 shipped in early season snowplows.*

## MODEL 810 PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
72	60027	1	Hydraulic Cylinder - Plow Raise/Lower
73	60093	1	1/4" x 15" Hydraulic Hose - Str./45° (#4) - Plow Raise / Lower, Retract
74	61053	1	3/16" x 1-11/16" O.D. x 12" Z Compression Spring
75	61032	2	1-1/4", 2-1/2" O.D., 1-3/8" I.D. YZ SAE Mil-Carb High-Strength Washer
76	61217	2	1-1/2" I.D., 2-1/8" O.D. Rubber Grommet, 60 Durometer
77	61017	3	3/8"-16 Z Wing Nut
78	61012	1	3/8"-16 x 3/4" Grade 8 YZ Hex Cap Screw
79	61016	6	3/8", 13/16" O.D., 13/32" I.D., YZ SAE Mil-Carb High-Strength Washer
80	61014	1	3/8"-16 Z Jam Nylon Insert Lock Nut - Type NTE
81	61116	1	3/8"-16 x 1-1/2" Threaded Stud
82	40004	1	Pump Mount Hinge Weldment
83	61218	1	3/8"-16 x 2" Grade 8 YZ Hex Cap Screw
84	61034	1	3/8"-16 Grade C Z Top Lock Nut
85	61222	2	3/8" YZ High Alloy Split Lock Washer
86	61033	2	3/8"-16 x 1" Grade 8 YZ Hex Cap Screw
87	62019	2	7/16"-14 Hex Jam Nut
88	61223	1	7/16" Internal Tooth Lock Washer
89	61224	1	7/16", 15/32" I.D., 23/32" O.D. Key Washer
90	62038	1	DPDT, (On)-Off-(On) Toggle Switch, 16 Amps, 115V AC - Draw Latch Connect/Disconnect
<b>91A</b>	<b>40010</b>	<b>1</b>	<b>A-frame Assembly: (1) - 82-84, 91, 96-98, 168</b>
91	40000	1	A-frame Weldment
92	61115	2	3/4" x 4-3/4" YZ Hitch Pin
93	61105	2	9/64" DIA. x 2-11/16" Z Hair Pin Cotter
94	61197	1	1" x 5-3/4" YZ Emergency Hitch Pin
95	61226	1	11/64" DIA. x 3-3/4" Z Hair Pin Cotter
96	61046	2	1-1/4" O.D., 1-1/6" I.D. Standard Split Ring
97	61000	2	1/32" x 3/8" O.D. x 15/16" Stainless Steel Compression Spring
98	40079	1	3/8" x 1-3/4" Stainless Steel A-frame Latch Pin
99	52044	1	1/2" x 1-3/4" Stainless Steel Kickstand Pin
<b>100A</b>	<b>40083</b>	<b>1</b>	<b>Draw Latch Assembly: (1) - 61, 105-108, 110, 111, 114, 115, (2) - 22, 100-104, 109, 112, 113</b>
100	61018	2	1/2"-13 x 2" Grade 8 YZ Hex Head Cap Screw
101	61026	4	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
102	61045	2	1/8" x 1-1/4" O.D. x 6" Stainless Steel Extension Spring
103	40039	2	3/4" O.D., 17/32" I.D. x 1-3/16" Spacer
104	61027	2	1/2", 1-3/8" O.D., 9/16" I.D., YZ USS Mil-Carb High-Strength Washer
105	61004	1	3/4"-10 x 4-1/2" Grade 8 YZ Hex Cap Screw
106	40041	1	3/4" x 7" Draw Latch Spring Mount Pin
107	61227	1	1/4"-20 x 1/2" Set Screw
108	40080	1	Outer Draw Latch Plate Weldment - Driver's Side
109	40074	2	Inner Draw Latch Plate Weldment
110	40070	1	1" x 4-1/2" Draw Latch Mount Pin (To A-frame)
111	40068	1	1" x 6" Draw Latch Bolt Mount Pin (1/2"-13 Tap In Each End)
112	40042	2	3/4" x 2-1/2" Inner Draw Latch Plate / Hydraulic Cylinder Rod End Pin - Plow Raise/Lower
113	40031	2	Draw Latch Arm
114	40082	1	Draw Latch Finger Weldment
115	40081	1	Outer Draw Latch Plate Weldment - Passenger's Side
<b>116A</b>	<b>60101</b>	<b>1</b>	<b>Hydraulic Pump Assembly (Fenner Fluid Power): (1) - 116-119</b>
116	60047	1	Hydraulic Pump Power Unit (Fenner Fluid Power)
117	60044	1	Hydraulic Pump Pressure Relief Valve Hex Cap (Fenner Fluid Power)
118	60045	1	Hydraulic Pump Fluid Reservoir (Fenner Fluid Power)
119	60046	1	Hydraulic Pump Fluid Reservoir Cap (Fenner Fluid Power)
<b>120A</b>	<b>61129</b>	<b>1</b>	<b>Hydraulic Pump &amp; Manifold Cover Assembly: (1) - 120, 169</b>
120	61114	1	3/16" Polyethylene Hydraulic Pump & Manifold Cover
<b>121A</b>	<b>60076</b>	<b>1</b>	<b>Manifold Assembly: (1) - 66, 122-126, 129A, (2) - 35, 36, 121, 127, 131, 134-136, (3) - 128, (4) - 132, 133, (5) - 38, (7) - 39, 130</b>
121	60038	2	3/32" C.S.W., 9/16" I.D., 3/4" O.D. Neoprene O-ring, 70 Durometer
122	60077	1	Clear Anodized Aluminum Manifold Block with Cross Port Relief
123	60049	1	-4 SAE Hollow Hex Plug
124	60069	1	9/16"-18 x 9/16"-18 Male O.R.B. Check Valve with 3/64" DIA. Orifice
125	60073	1	7/16"-20 x 9/16"-18 90° Swivel Elbow
126	60072	1	9/16"-18 x 9/16"-18 Male Extra Long Elbow
N/A†	60067	1	9/16"-18 x 7/16"-20 Tube Reducer
N/A††	60068	1	9/16"-18 Swivel Nut
127	60050	2	-6 SAE Hollow Hex Plug
128	60051	3	Three Position, Four-Way N.C. Solenoid Cartridge (DSO85C1)
<b>129A</b>	<b>62043</b>	<b>1</b>	<b>Heavy Duty Coil Wire Lead Harness Assembly: (1) - 62045, 62046, (10) - 129</b>
129	60037	10	12V DC Heavy Duty Coil with Wire Leads
N/A	62045	2	Plastic Electric Connector - Male
N/A	62046	2	Plastic Electric Connector - Female
130	60052	7	1/2"-20 YZ Hex Jam Nut
131	60079	2	Pressure Relief Valve, 1500 psi (RD083C20/150)
132	60054	4	3/8"-24 YZ Crown Nut
133	60080	4	Sequence Valve, 1000 psi (SVD101RS10)
134	60056	2	Pressure Relief Valve, 3000 psi (RD083C30/300)

*Note: The reference numbers listed identify parts shown in the illustrations on pages 21 - 25 & 28. These numbers are specific to these illustrations only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.*

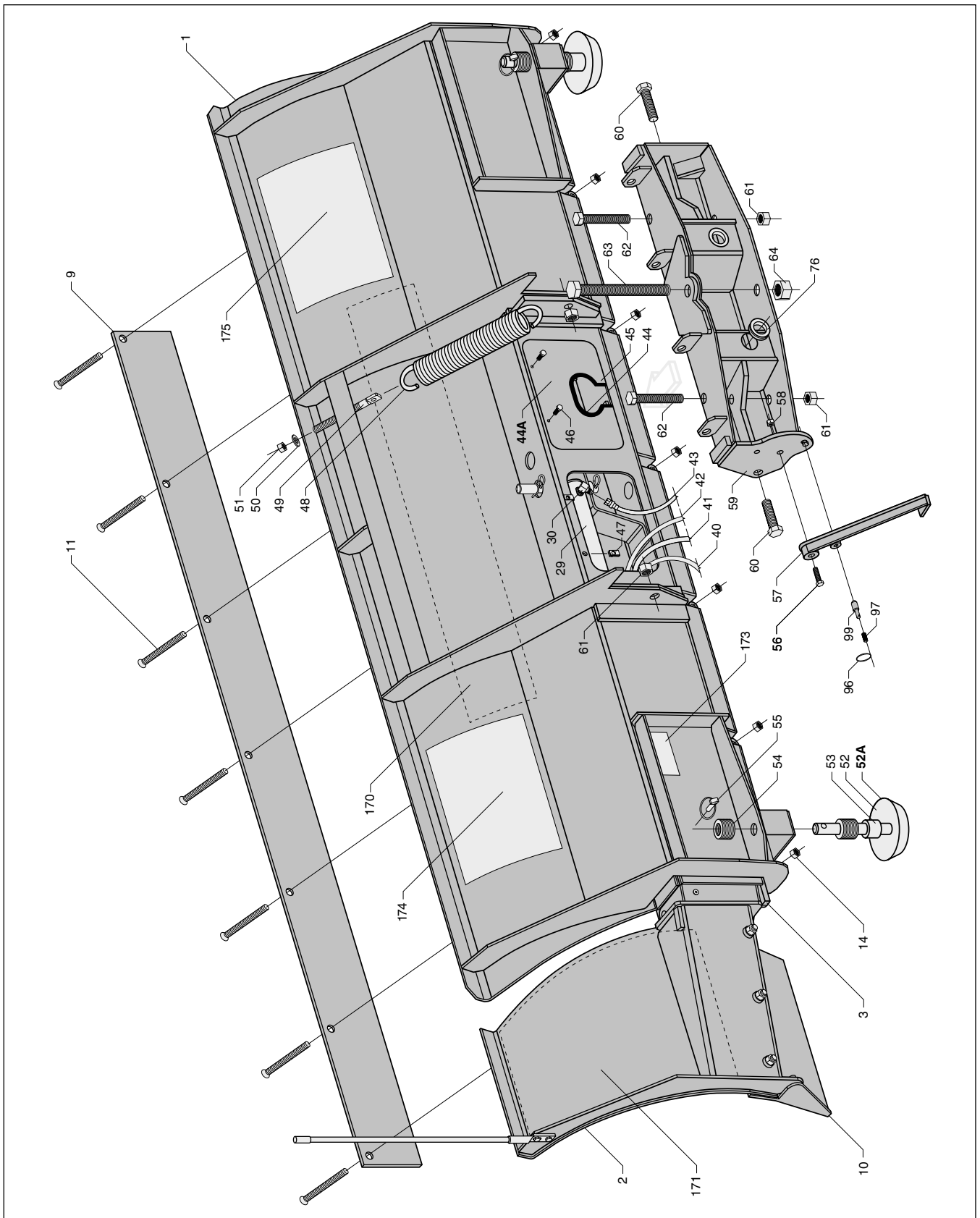
† 9/16"-18 x 7/16"-20 Tube Reducer (P/N 60067) replaces item #125 in early season delivered snowplows.

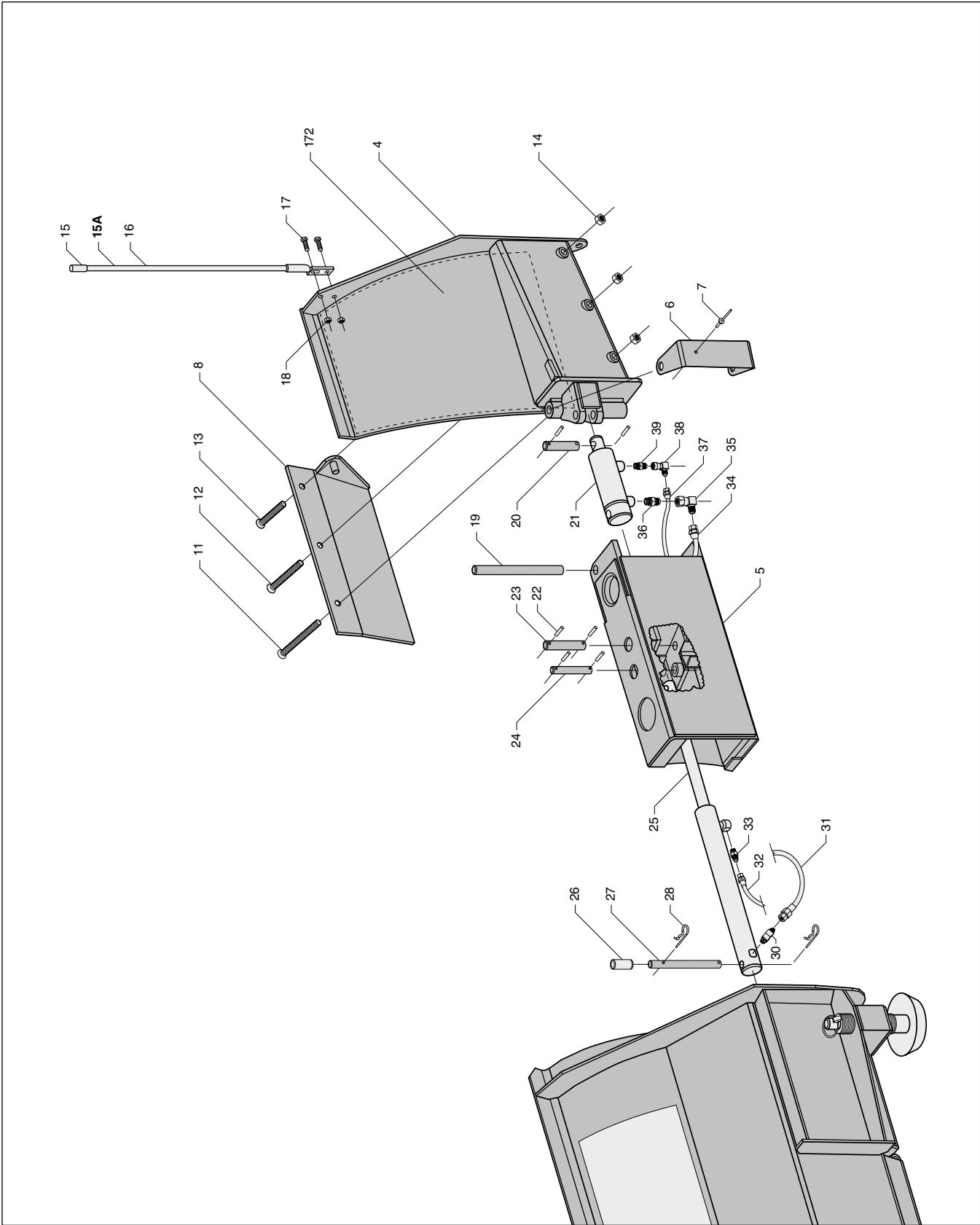
†† 9/16"-18 Swivel Nut (P/N 60068) replaces item #125 in early season delivered snowplows.

## MODEL 810 PARTS LIST

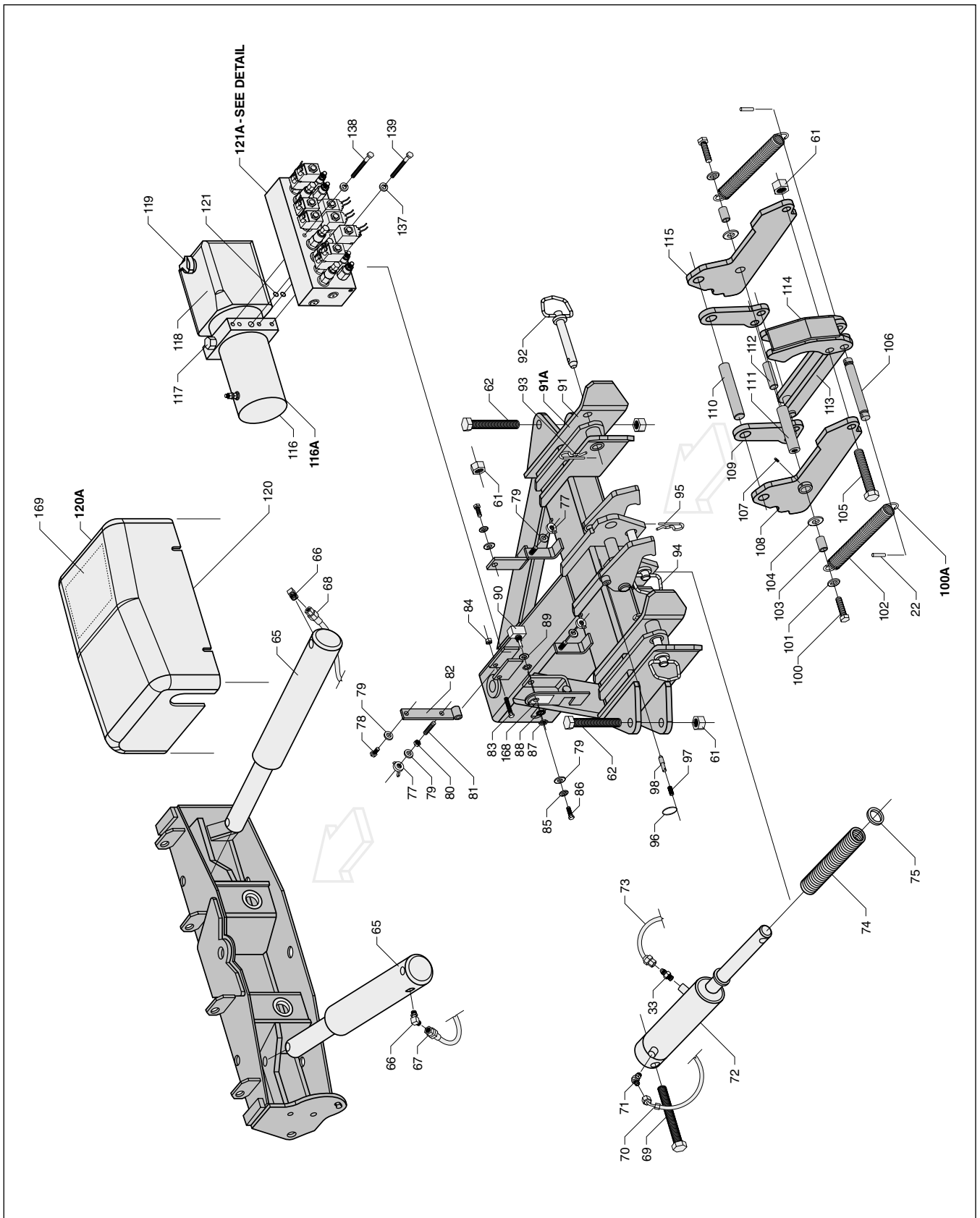
Ref. No.	Part No.	Qty.	Part Description
135	60057	2	Two Position, Two-Way N.C. Solenoid Cartridge (DSO83H)
136	60058	2	Two Position, Two-Way N.C. Solenoid Cartridge (DSO81CR)
137	61011	4	5/16" YZ High Alloy Split Lock Washer
138	61009	1	5/16"-18 x 3-1/2" Grade 8 YZ Hex Cap Screw
139	61010	1	5/16"-18 x 3-3/4" Grade 8 YZ Hex Cap Screw
<b>140A</b>	<b>62040</b>	<b>1</b>	<b>Vehicle Wire Harn. Assem: (1) - 140-41, 62008, 62009, 62024, 62048, 62049, (2) - 62035, 62072, (3) - 62016</b>
140	62047	1	Vehicle Wire Harness
141	62000	1	Rubber Weather Cap - Vehicle Wire Harness
N/A	62035	2	Rubber Weather Cap - Plow Headlight Connector
N/A	62024	1	DPDT, On-Off-On Toggle Switch, 15A, 125V AC (Vehicle/Plow Headlights)
N/A	62048	1	1/4" DIA. x 1-1/4" AGC 10A, 250V Fuse
N/A	62049	1	72" Power Cable, Red - Power Contactor to Battery
N/A	62072	2	3/8" I.D. Copper End Ring Terminals - 72" Power Cable
N/A	62008	1	Mini Fuse Clip
N/A	62009	1	Auto Blade Fuse Clip
N/A	62016	3	Splice Lock Connector (18-14 AWG)
N/A	62042	1	Heavy Duty, Water-Resistant DC Power Contactor
N/A	61228	4	5/16"-24 Z Hex Jam Nut
N/A	61229	4	#10-32 Z Hex Full Nut
N/A	61230	2	#10 Z Medium Split Lock Washer
N/A	62056	1	24" Power Contactor Ground Wire
N/A	61225	2	#10 x 1/2" Hex Washer Self-Drilling Screw
<b>142A</b>	<b>62039</b>	<b>1</b>	<b>Plow Wire Harness Assembly: (1) - 88-90, 142, 143, 62037, 62006, 62007, (2) - 87</b>
142	62057	1	Plow Wire Harness
143	62001	1	Rubber Weather Cap - Plow Wire Harness
N/A	62037	1	Ground Wire Harness
N/A	62006	1	Diode Board - Plow Wire Harness
N/A	62007	1	Diode Board Cover - Plow Wire Harness
<b>144A</b>	<b>62058</b>	<b>1</b>	<b>Plow Headlight Assembly: (1) - 144/145-148, 62061, 62062</b>
144	62059	1	Plow Headlight - Driver's Side
145	62060	1	Plow Headlight - Passenger's Side
146	62032	2	Plow Headlight Wire Harness with 5-pin Plug
N/A	62061	2	Plow Headlight Glass Sealed Beam Halogen Bulb (H6545/H4666)
147	61231	2	Headlight Ball Stud Mount Adapter
148	61232	2	1/2" Heavy Split Lock Washer
N/A	62062	1	NYK Corrosion Preventive Compound (2 fl. oz.)
149	61166	2	2-1/4" Molded Nylon Dome Plug, Black
150	39032	1	Light Tower, Round Mounting Tube
151	61038	2	1/4"-20 Grade C Z Top Lock Nut
152	61039	2	1/4", 5/8" O.D., 9/32" I.D. YZ SAE Mil-Carb High-Strength Washer
153	39023	1	Stainless Steel Vehicle Wire Harness Plug Mount
<b>154A</b>	<b>62063</b>	<b>1</b>	<b>Rocker Switch Control Station Assembly: (1) - 154, 155, 157-159, 161, 165, (3) - 160, (4) - 156, 61036</b>
154	61125	1	1/8" ABS Plastic Rocker Switch Control Station Housing
155	61126	1	1/8" ABS Plastic Rocker Switch Control Station Housing Plate
156	61035	4	10-24 x 1/2" Z Machine Screws
N/A	61036	4	10-24 U-Clip
157	62064	1	Electrical Connector (11-pin Plug) - Rocker Switch Control Station
158	61127	1	61" Velcro Strap with 2" Metal D-Ring, Black
159	62065	1	SPST, Off-None-On Rocker Switch, Black/Red 15A, 250V AC (Power)
160	62066	3	DPDT, (On)-Off-(On) Rocker Switch, White 10A, 250V AC (Wing Extend & Retract - Driver's Side & Passenger's Side, Plow Angle)
161	62067	1	DPDT, (On)-Off-(On) Rocker Switch, White 10A, 250V AC (Plow Raise & Lower)
162	61031	4	12-14 x 3/4" Hex Washer Self-Drilling Screw
<b>163A</b>	<b>61043</b>	<b>1</b>	<b>Vehicle/Plow Headlight Toggle Switch Bracket Assembly: (1) - 163 &amp; 164</b>
163	61041	1	Vehicle/Plow Headlight Toggle Switch Bracket
164	61088	1	Plow/Vehicle Headlight Toggle Switch Bracket Label
165	61090	1	Rocker Switch Control Station Label
166	61085	1	2-1/8" x 13-1/8" Push Beam Decal
167	61128	1	1-1/2" x 9" Push Beam Decal
168	61089	1	Power Hitch Connect/Disconnect Switch Label
169	61091	1	Sequencing Valve & Hydraulic Hose Identification Guide Label
170	61082	1	Moldboard Decal
171	61083	1	Driver's Side Wing Decal
172	61084	1	Passenger's Side Wing Decal
173	61092	1	Serial Number Label (Sequentially Numbered)
174	61180	1	Power Hitch Mounting & Dismounting Instructions Label
175	61086	1	WARNING! Label
176	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
177	61020	2	1/2"-13 Grade C Z Top Lock Nut
178	30037	1	1999-Present Chevrolet/GMC 2500 Series Undercarriage (37" Push Beam)

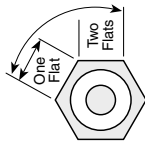
*Note: The reference numbers listed identify parts shown in the illustrations on pages 21 - 25 & 28. These numbers are specific to these illustrations only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.*











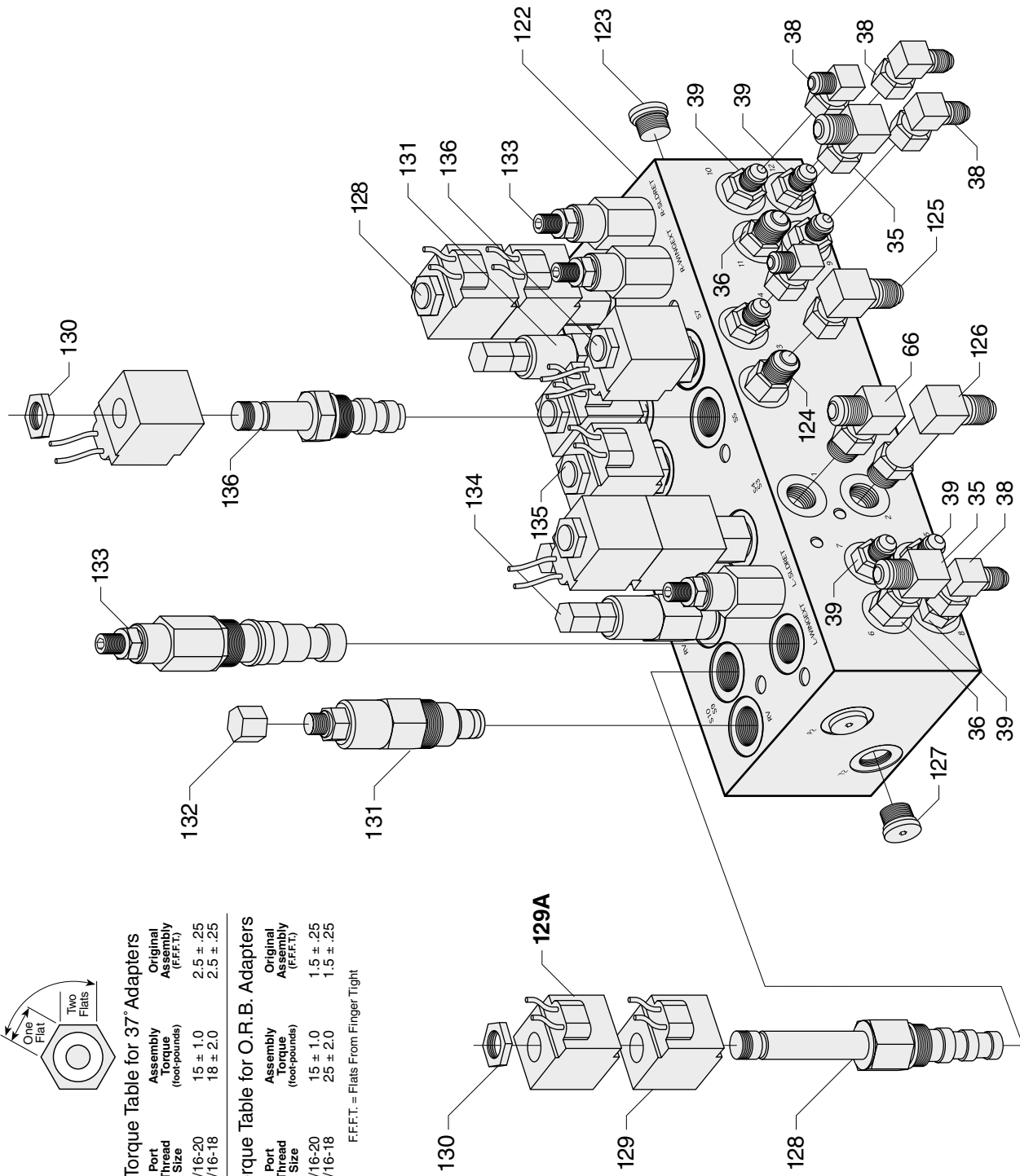
**Torque Table for 37° Adapters**

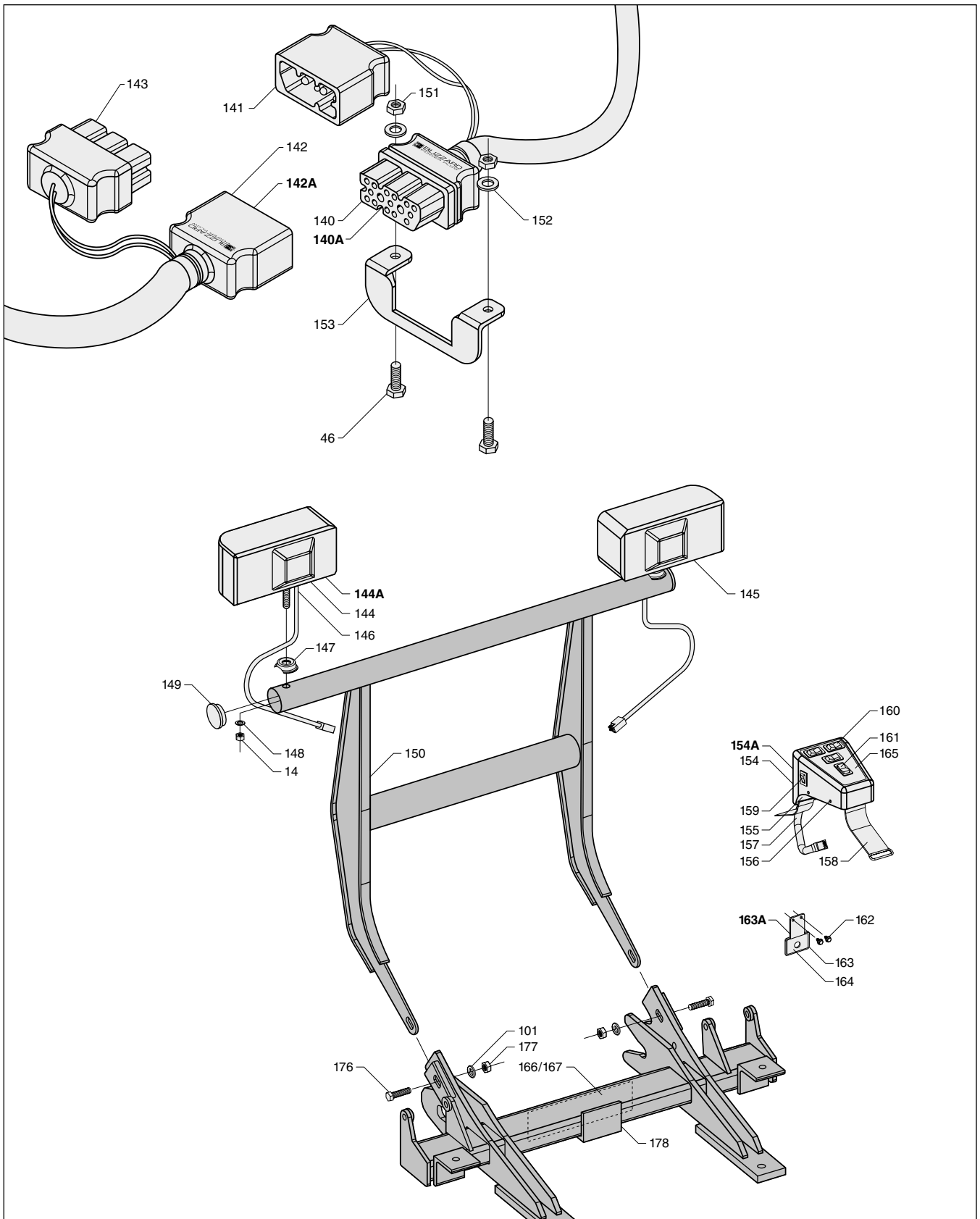
Port Thread Size	Assembly Torque (foot-pounds)	Original Assembly Torque (FFFT)
7/16-20	15 ± 1.0	2.5 ± .25
9/16-18	18 ± 2.0	2.5 ± .25

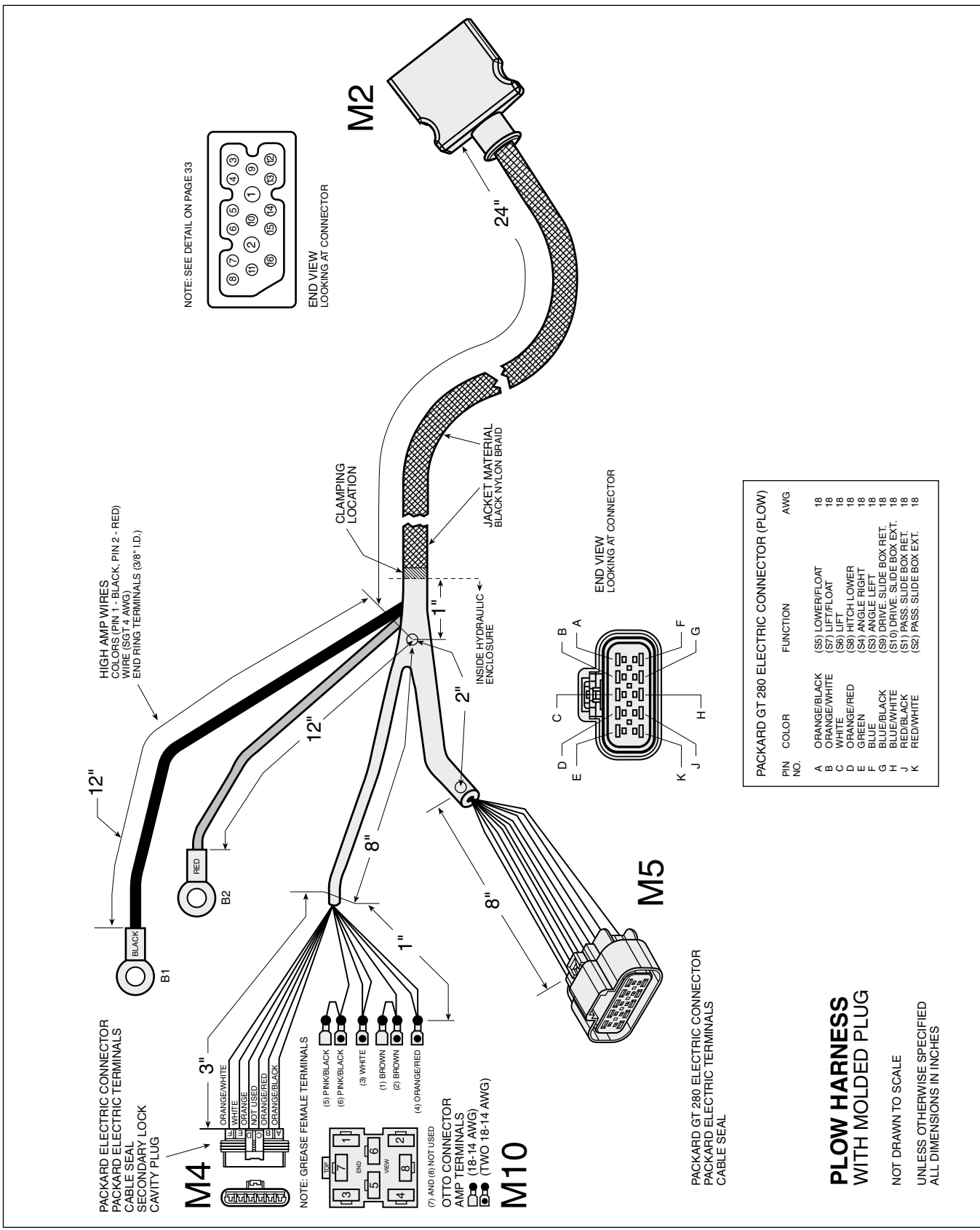
**Torque Table for O.R.B. Adapters**

Port Thread Size	Assembly Torque (foot-pounds)	Original Assembly Torque (FFFT)
7/16-20	15 ± 1.0	1.5 ± .25
9/16-18	25 ± 2.0	1.5 ± .25

FFFT = Flats From Finger Tight

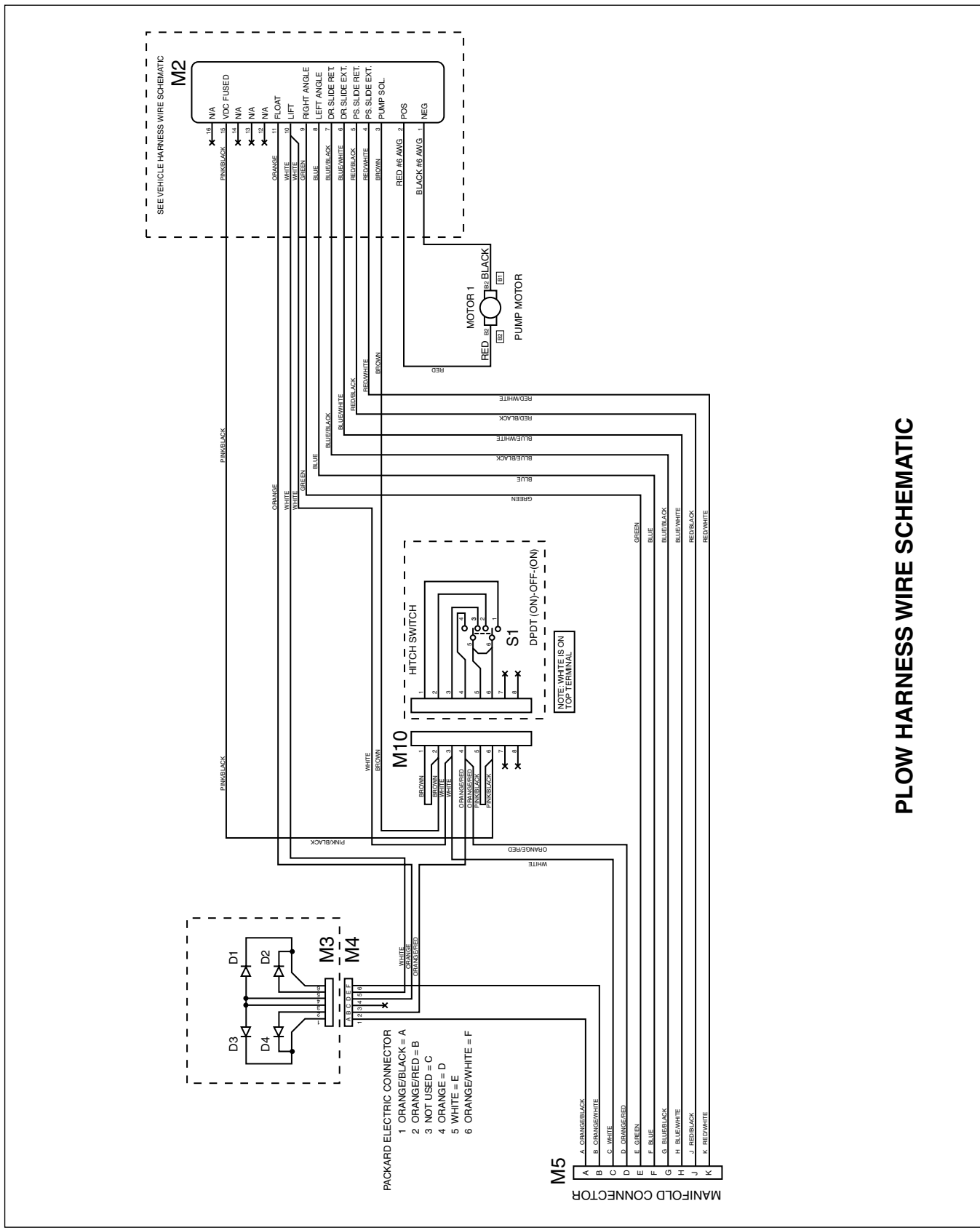






**PLOW HARNESS  
WITH MOLDED PLUG**

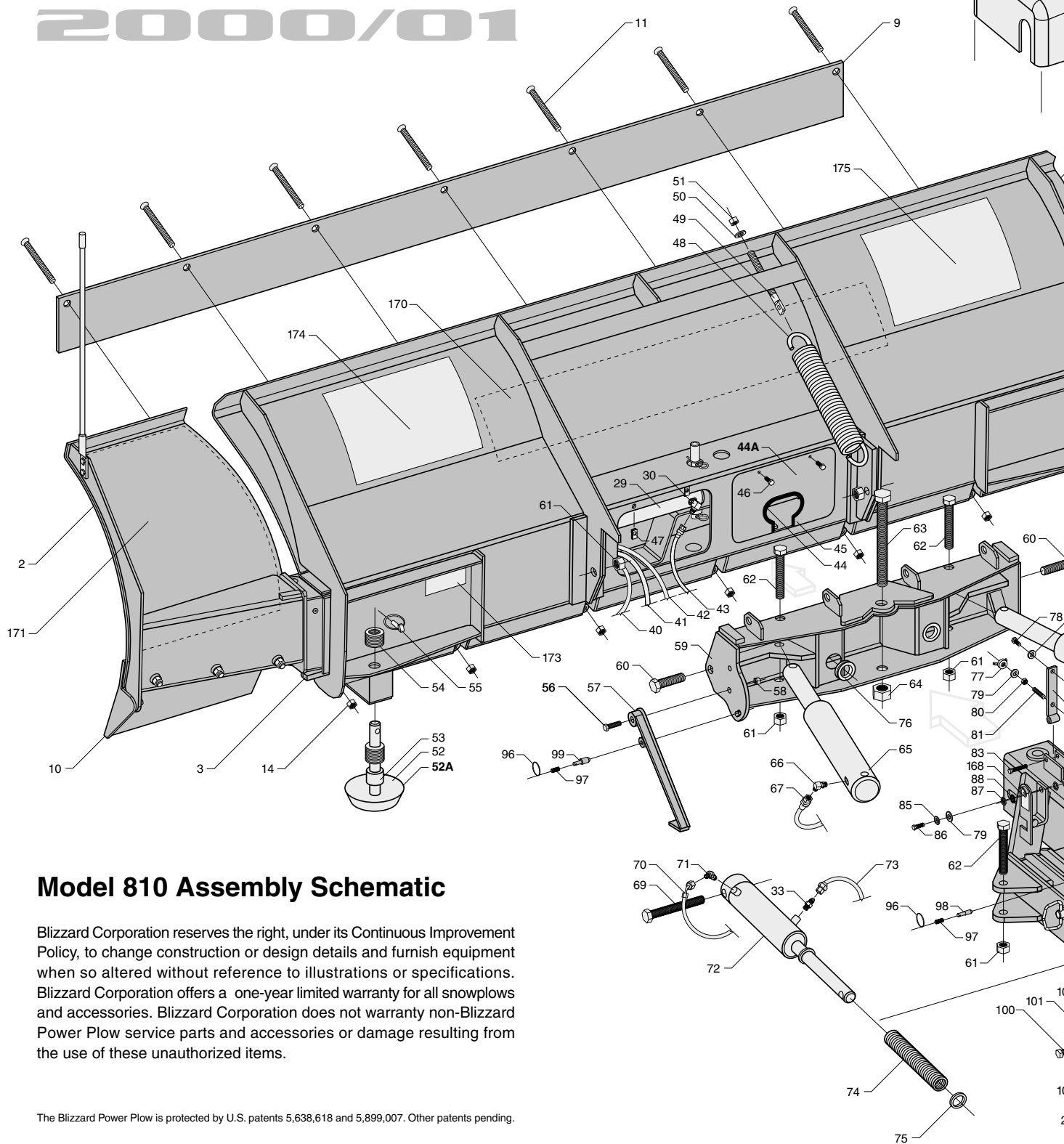
NOT DRAWN TO SCALE  
UNLESS OTHERWISE SPECIFIED  
ALL DIMENSIONS IN INCHES



# PLOW HARNESS WIRE SCHEMATIC



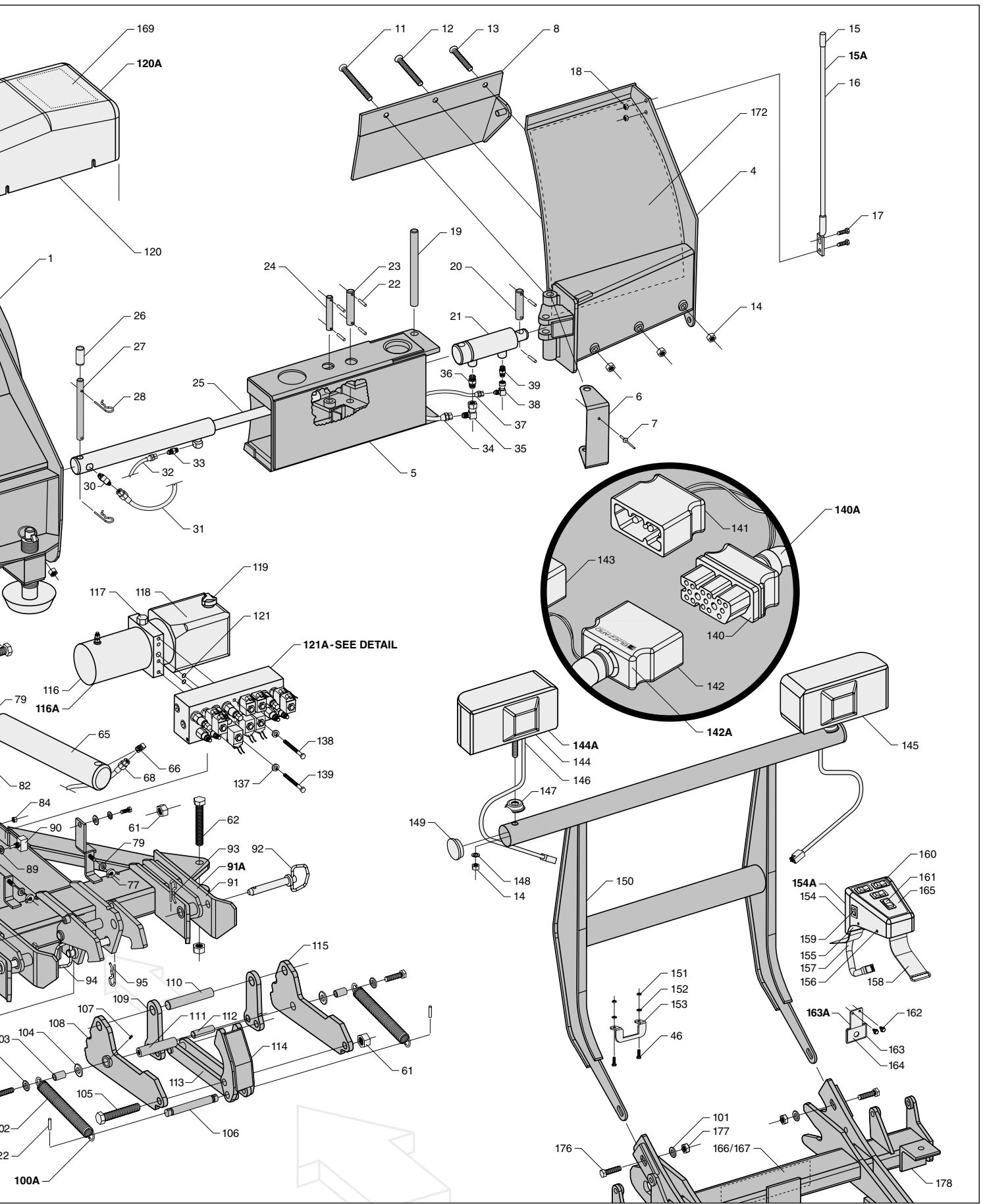
2000/01

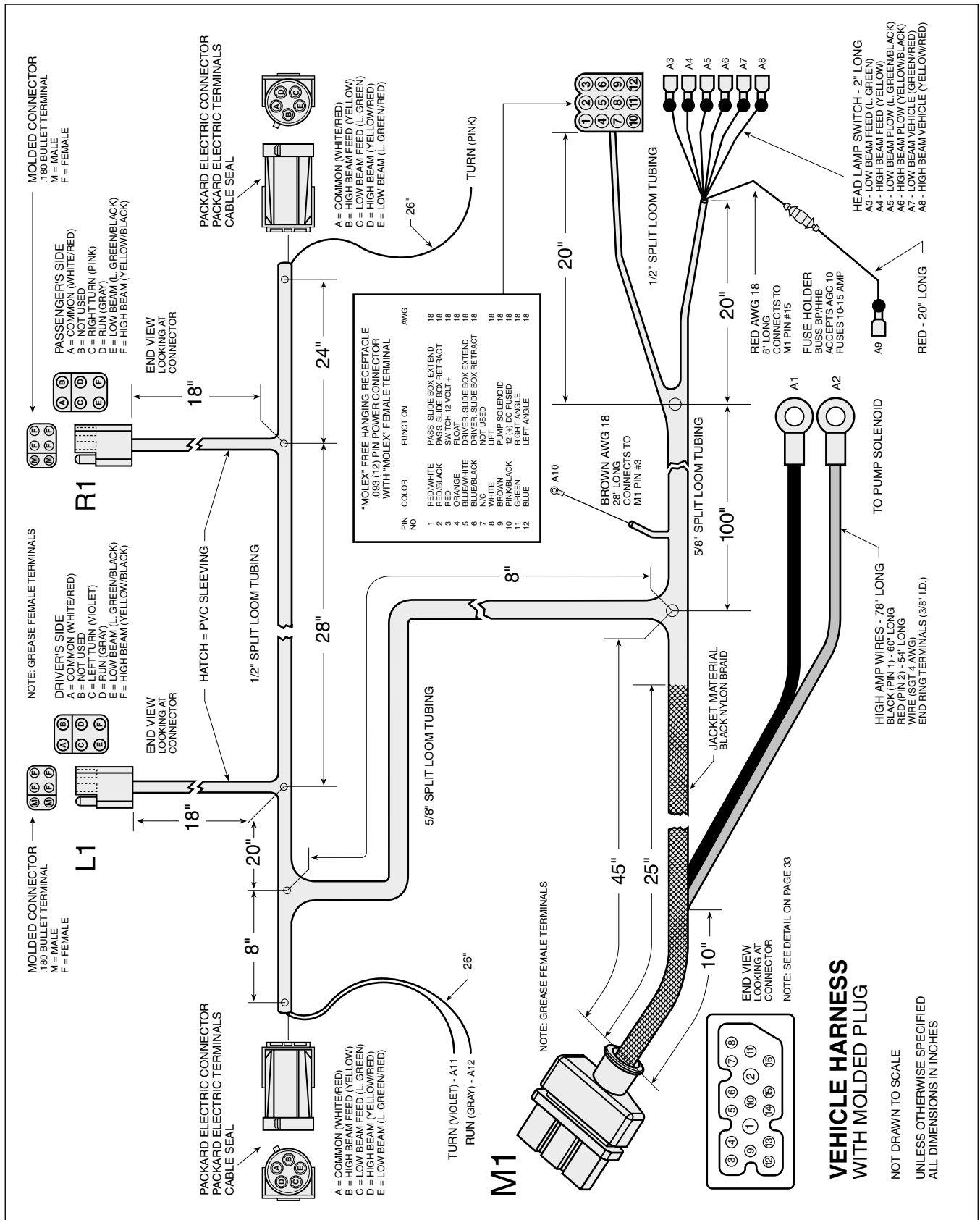


### Model 810 Assembly Schematic

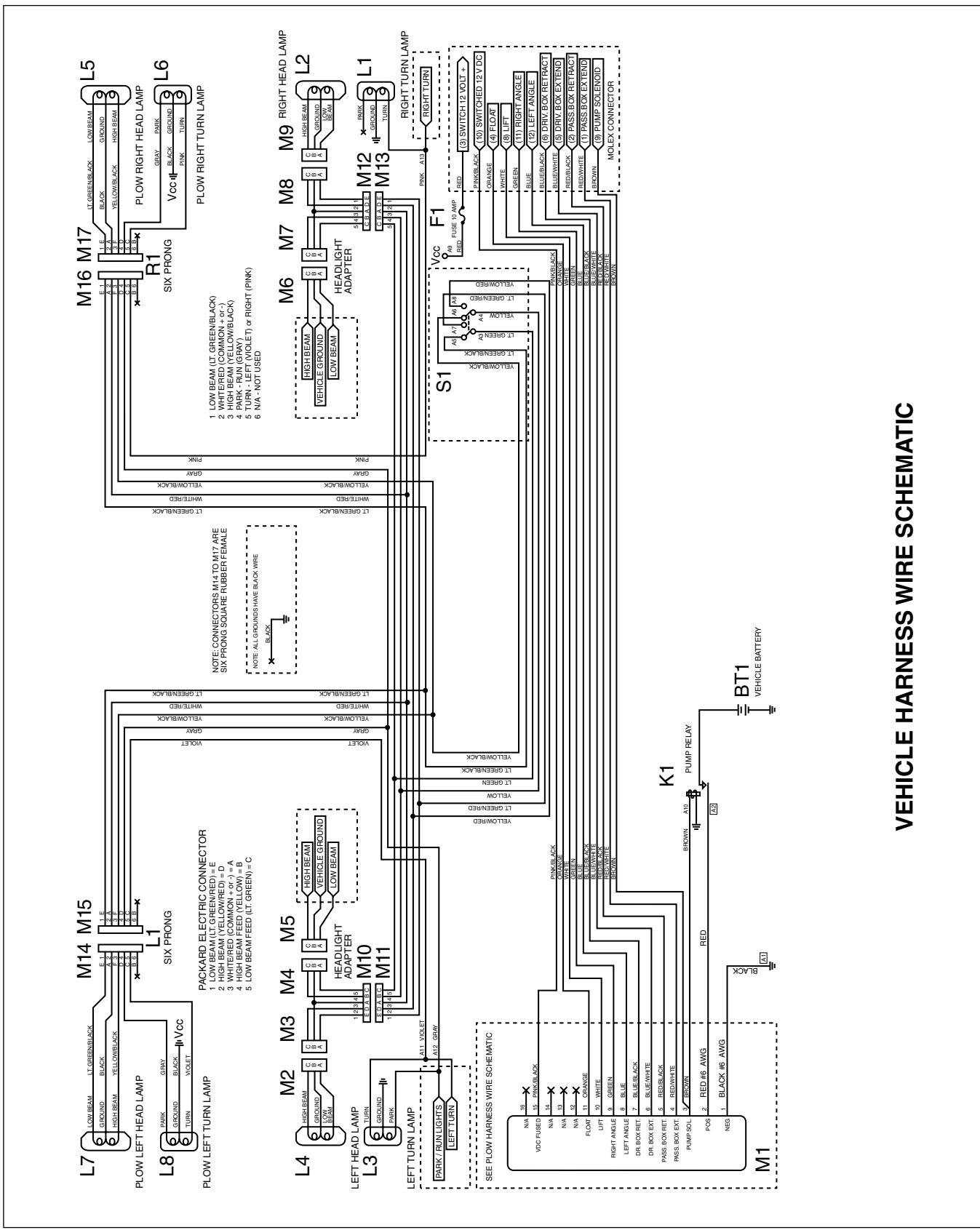
Blizzard Corporation reserves the right, under its Continuous Improvement Policy, to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications. Blizzard Corporation offers a one-year limited warranty for all snowplows and accessories. Blizzard Corporation does not warranty non-Blizzard Power Plow service parts and accessories or damage resulting from the use of these unauthorized items.

The Blizzard Power Plow is protected by U.S. patents 5,638,618 and 5,899,007. Other patents pending.

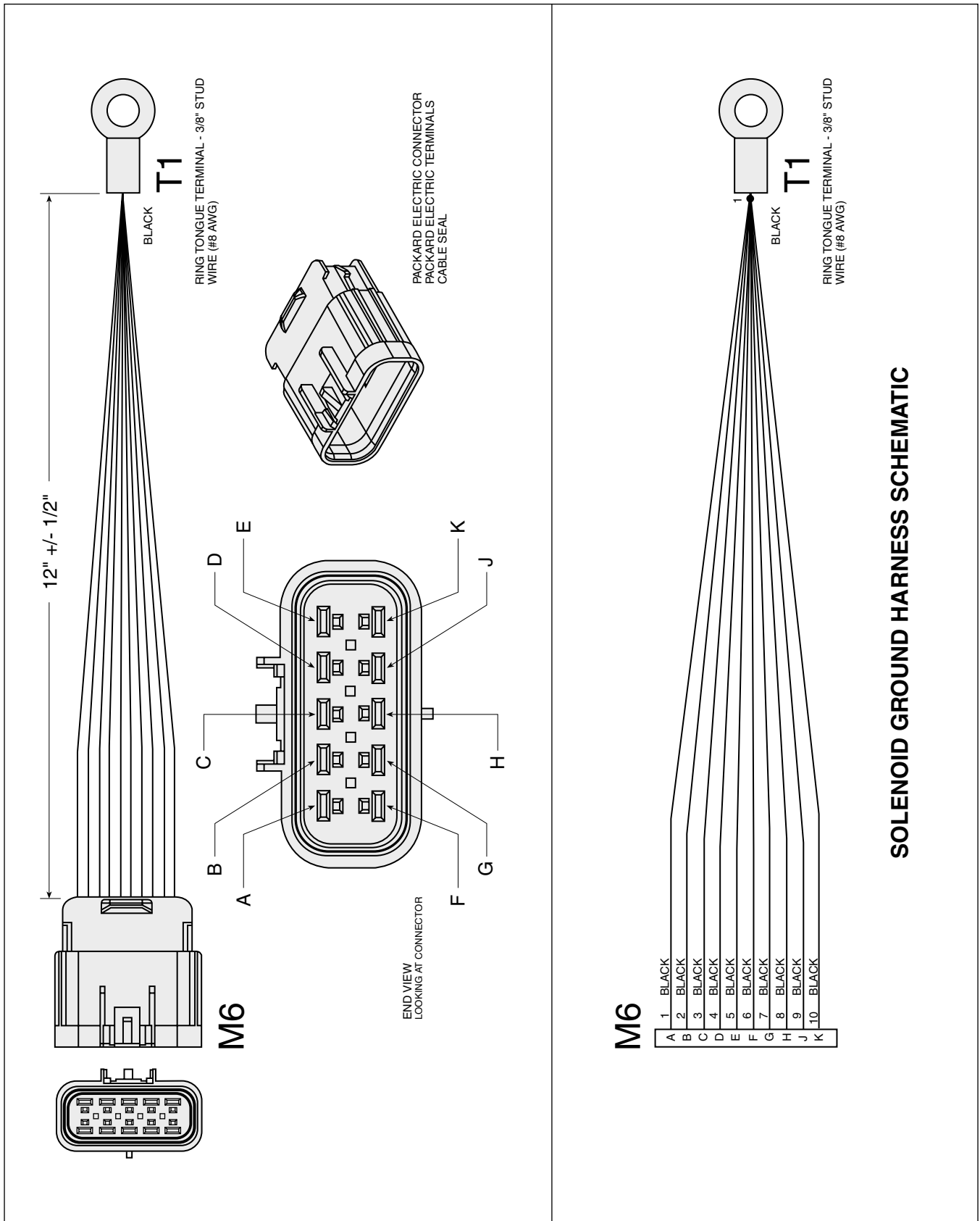




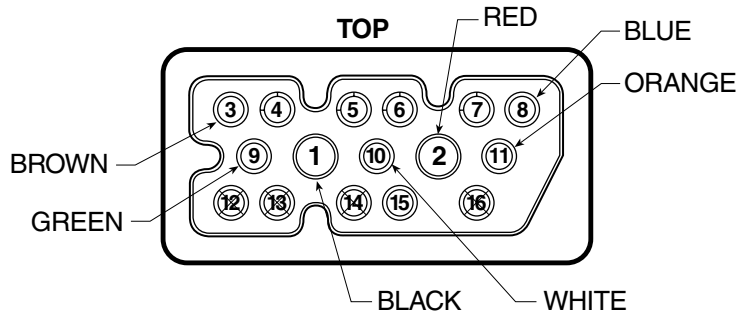
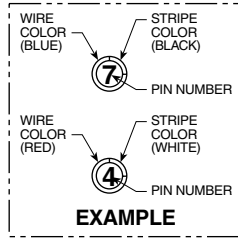
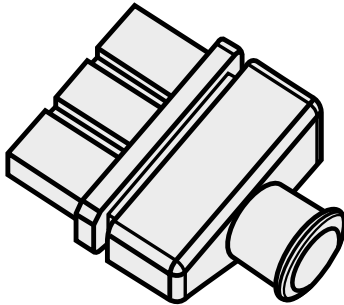




# VEHICLE HARNESS WIRE SCHEMATIC

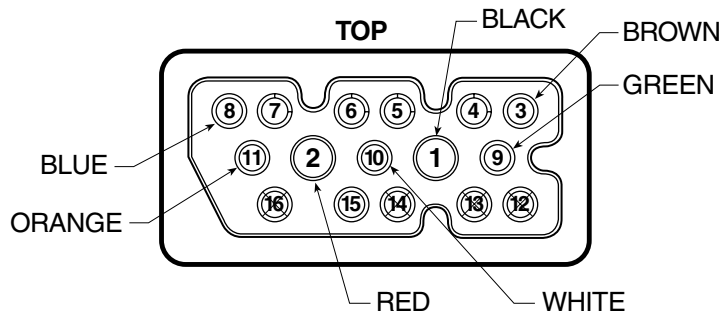
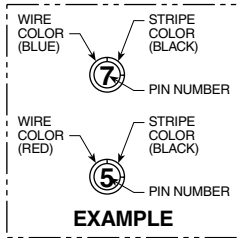
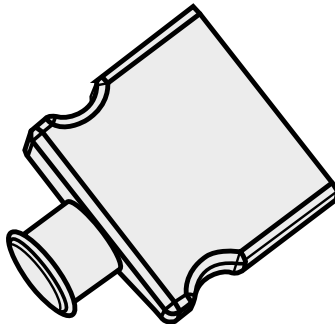


BLIZZARD HARNESS PLUG (VEHICLE) UNIVERSAL 14 + 2 MOLD			
PIN NO.	COLOR	FUNCTION	AWG
1	BLACK	GROUND	4
2	RED	12 VOLT DC (+)	4
3	(1) BROWN	PUMP SOLENOID RING	18
	(2) BROWN	PUMP WIRE TO MOLEX	18
4	RED/WHITE	PASS. SLIDE BOX EXTEND	18
5	RED/BLACK	PASS. SLIDE BOX RETRACT	18
6	BLUE/WHITE	DRIVE. SLIDE BOX EXTEND	18
7	BLUE/BLACK	DRIVE. SLIDE BOX RETRACT	18
8	BLUE	LEFT ANGLE	18
9	GREEN	RIGHT ANGLE	18
10	WHITE	LIFT	18
11	ORANGE	FLOAT	18
12	N/A	N/A	N/A
13	N/A	N/A	N/A
14	N/A	N/A	N/A
15	PINK/BLACK	12 (+) VDC FUSED	18
16	N/A	N/A	18



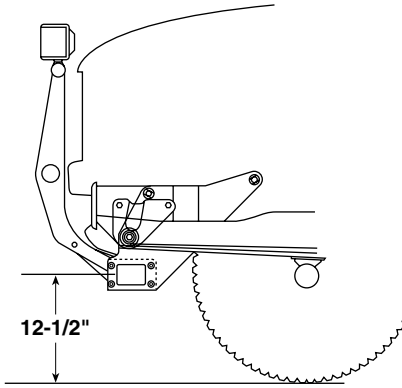
**END VIEW**  
LOOKING AT MALE CONNECTOR

BLIZZARD HARNESS PLUG (FLOW) UNIVERSAL 14 + 2 MOLD			
PIN NO.	COLOR	FUNCTION	AWG
1	BLACK	GROUND	4
2	RED	12 VOLT DC (+)	4
3	BROWN	PUMP SOLENOID	18
4	RED/WHITE	PASS. SLIDE BOX EXTEND	18
5	RED/BLACK	PASS. SLIDE BOX RETRACT	18
6	BLUE/WHITE	DRIVE. SLIDE BOX EXTEND	18
7	BLUE/BLACK	DRIVE. SLIDE BOX RETRACT	18
8	BLUE	LEFT ANGLE	18
9	GREEN	RIGHT ANGLE	18
10	WHITE	LIFT	18
11	ORANGE	FLOAT	18
12	N/A	N/A	N/A
13	N/A	N/A	N/A
14	N/A	N/A	N/A
15	PINK/BLACK	12 (+) VDC FUSED	18
16	N/A	N/A	18



**END VIEW**  
LOOKING AT FEMALE CONNECTOR

# 1987-1991 FORD UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



**WARNING:** Most new 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 warning may result in serious injury or death.

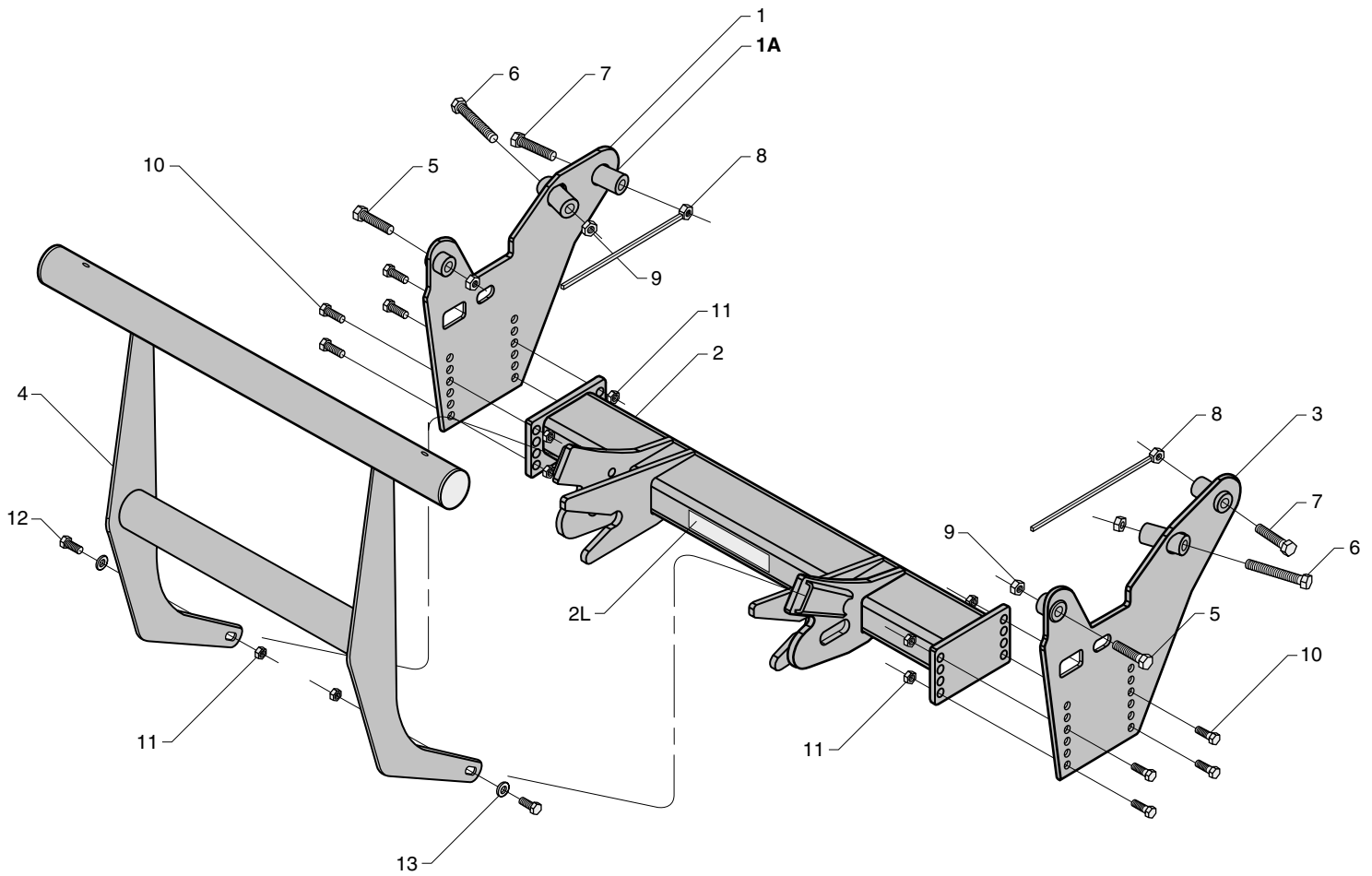


**CAUTION:** If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

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.

1. Begin the undercarriage assembly by removing the front bumper of the vehicle. There are two mounting plates with four M12-1.75 x 45 flanged hex head screws and M12-1.75 nuts to be removed. These are located on the inside of the truck frame rail.
2. Match the holes in each of the HANGER PLATES to those located on the outside of the truck frame rail. Insert one 5/8"-11 x 4" bolt through the rear hole in the hanger plate and truck frame rail. Position one 5/8"-11 top locking nut with 14" welded stock inside of the truck frame rail and fasten. *Note: Loosely attach all nuts until all undercarriage plates are positioned.*
3. Position the hanger plate cut-outs over the spring shackle bolt and leaf spring clamp mounts. Align the front mounting hole on the plate with the hole in the truck frame. Fasten the plate to the vehicle with one 5/8"-11 x 2-3/4" bolt and top lock nut.
4. Complete the hanger plate installation by positioning one 5/8"-11 x 4-1/2" bolt through the middle mounting hole in the plate. Secure the screw with one 5/8" top lock nut.
5. Repeat steps #2 through #4 for the opposite hanger plate. *Note: If your vehicle is equipped with oversize tires, the steering stop may need to be adjusted to prevent the tire from hitting the hanger plate.*
6. Mount the PUSH BEAM to the hanger plates using eight 1/2"-13 x 1-1/2" bolts and 1/2"-13 top lock nuts. *Note: The proper height for the push beam is approximately 12-1/2" from the ground to the center of the push beam.*
7. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
8. Replace the bumper using the existing hardware.
9. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

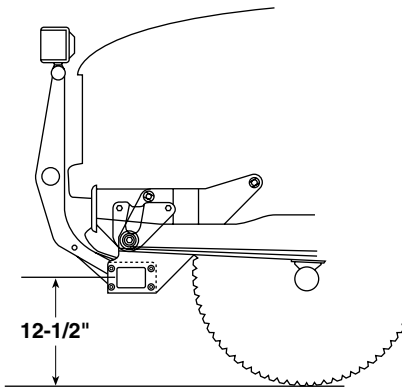


### 1987-91 FORD UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
<b>1A</b>	<b>31041</b>	<b>1</b>	<b>1987-1991 Ford Undercarriage Assembly (No. 1-13)</b>
1	31042	1	Passenger's Side Hanger Plate (1987-91 Ford)
2	31045	1	42-1/8" Push Beam (1987-91 Ford)
2L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
3	31043	1	Driver's Side Hanger Plate (1987-91 Ford)
4	39032	1	Light Tower, Round Mounting Tube
5	61061	2	5/8"-11 x 2-3/4" Grade 8 YZ Hex Head Cap Screw
6	61065	2	5/8"-11 x 4-1/2" Grade 8 YZ Hex Head Cap Screw
7	61155	2	5/8"-11 x 4" Grade 8 YZ Hex Head Cap Screw
8	61161	2	5/8"-11 Grade C Z Top Lock Nut with Welded 14" Square Stock
9	61063	4	5/8"-11 Grade C Z Top Lock Nut
10	61055	8	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
11	61020	10	1/2"-13 Grade C Z Top Lock Nut
12	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
13	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
<b>N/A</b>	<b>61157</b>	<b>1</b>	<b>1987-1991 Ford Undercarriage Hardware Kit - Kit Includes: No. 5 - 13</b>

*Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams issued. Always review the part number given for proper component identification.*

# 1992-98 FORD F-250 & F-350 UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



**WARNING:** Most new 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 warning may result in serious injury or death.

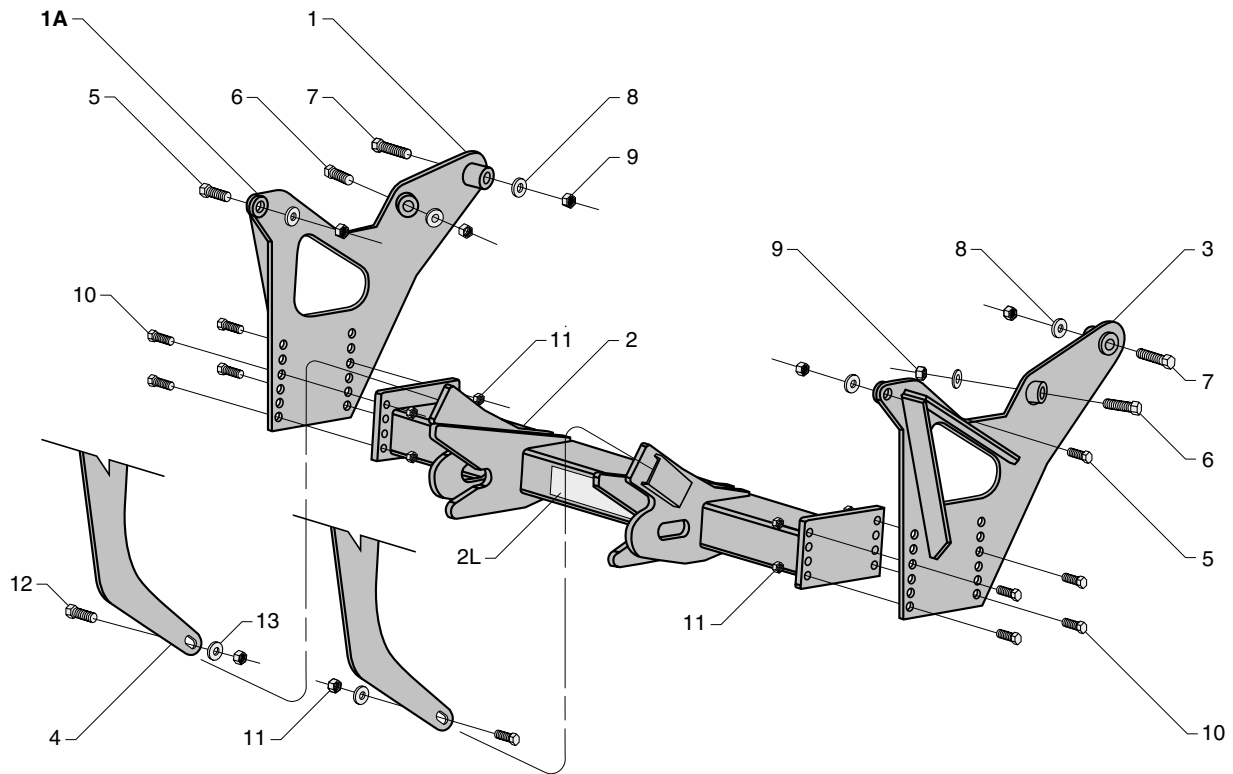


**CAUTION:** If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

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.

1. Begin the assembly by removing the four nuts from the FRONT BUMPER MOUNT. Remove the bumper.
2. Position the DRIVER'S SIDE HANGER PLATE on the outside of the truck frame rail. Attach one 5/8"-11 x 1-3/4" bolt through the front mount on the hanger plate and truck frame rail. Secure the bolt with one 5/8" washer and top lock nut on the inside of the frame rail. *Note: Use the opening at the end of the frame rail to access the nut and washer.*
3. Position one 5/8"-11 x 3-1/4" bolt through the rear mount on the hanger plate and truck frame rail. Secure the bolt with one 5/8" washer and top lock nut on the inside of the frame rail. *Note: Use an original opening cut into the frame rail behind the mounting hole to position the nut and washer.*
4. Position one 5/8"-11 x 2-3/4" bolt through the middle mount on the hanger plate and truck frame rail. Secure the bolt with one 5/8" washer and top lock nut on the inside of the frame rail. *Note: Use an original opening on the inside of the truck frame rail opposite of the mount to position the nut and washer.*
5. Repeat all three procedures above to securely mount the PASSENGER'S SIDE HANGER PLATE.
6. Mount the PUSH BEAM to each hanger plate using four 1/2"-13 x 1-1/2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12" from the ground to the center of the beam.*
7. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
8. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top lock nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

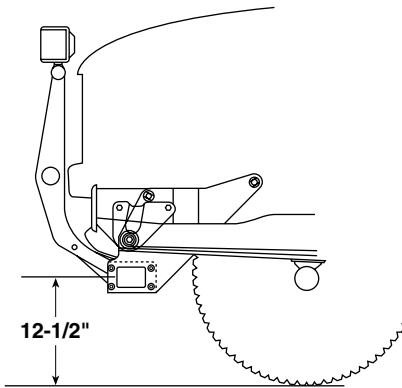


### 1992-98 FORD F-250 & F-350 UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
<b>1A</b>	<b>31036</b>	<b>1</b>	<b>1992-1998 Ford F-250 &amp; F-350 Undercarriage Assembly (No. 1-13)</b>
1	31013	1	Passenger's Side Hanger Plate (1992-1998 Ford F-250 & F-350)
2	31019	1	40-5/8" Push Beam (1992-1998 Ford F-250 & F-350)
2L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
3	31011	1	Driver's Side Hanger Plate (1992-1998 Ford F-250 & F-350)
4	39032	1	Light Tower, Round Mounting Tube
5	61060	2	5/8"-11 x 1-3/4" Grade 8 YZ Hex Cap Screw
6	61061	2	5/8"-11 x 2-3/4" Grade 8 YZ Hex Cap Screw
7	61062	2	5/8"-11 x 3-1/4" Grade 8 YZ Hex Cap Screw
8	61064	6	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
9	61063	6	5/8"-11 Grade C Z Top Lock Nut
10	61055	8	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
11	61020	10	1/2"-13 Grade C Z Top Lock Nut
12	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
13	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
<b>N/A</b>	<b>61080</b>	<b>1</b>	<b>1992-1998 Ford F-250 &amp; F-350 Undercarriage Hardware Kit - Kit Includes: No. 5 - 13</b>

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

# 1999-PRESENT FORD F-250 & F-350 UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



**WARNING:** Most new 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 warning may result in serious injury or death.



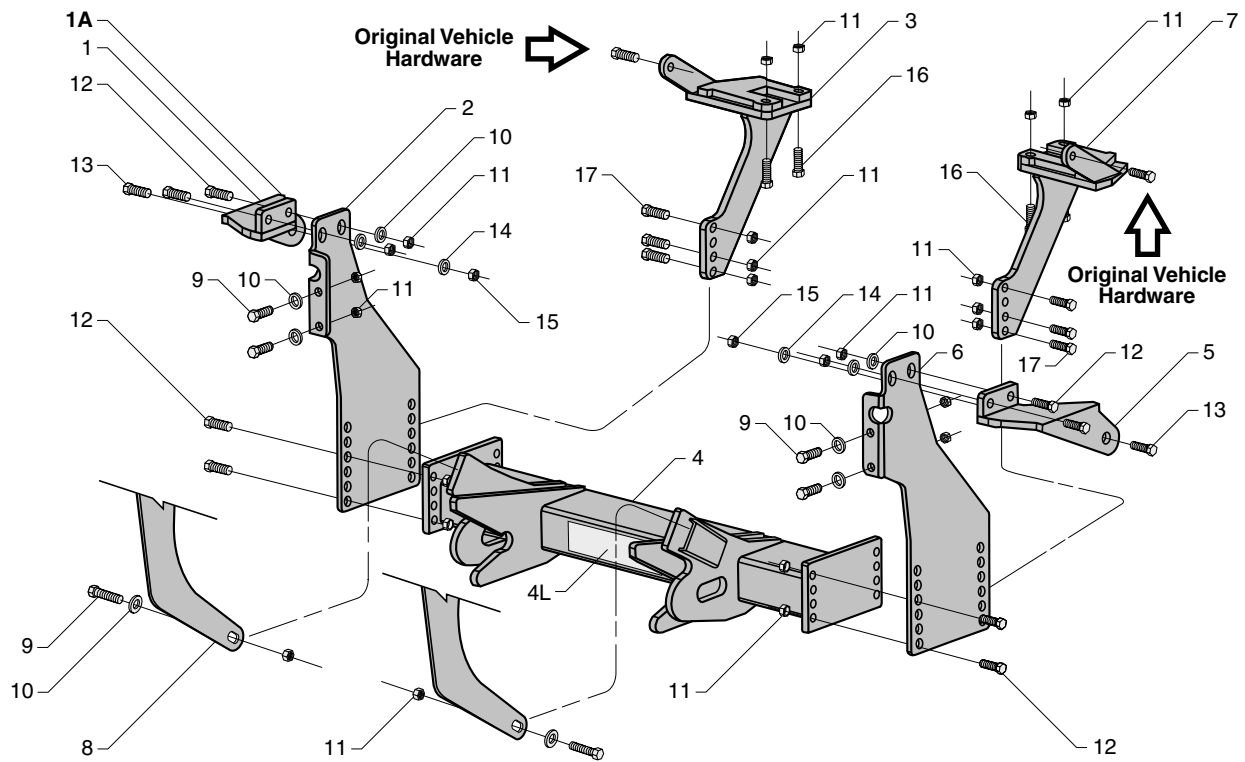
**CAUTION:** If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

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.

1. Begin the undercarriage assembly by removing the front bumper of the vehicle. There are four 1/2"-13 x 1-3/4" acorn head bolts with 1/2" washers, two nut plates and two bumper shim plates to remove. *Note: The bumper shim plate prohibits the proper mounting bolts from being installed. Either discard the plate or increase the size of the holes located on the front.*
2. Attach each HANGER PLATE (2) to the truck frame rails using two 1/2"-13 x 1-1/4" bolts and washers. Secure all bolts using a 1/2"-13 top lock nut. *Note: Loosely attach all nuts until all undercarriage plates are positioned.*
3. Rest both ZEE BRACKETS on the truck frame rail and fasten two 1/2"-13 x 1-1/2" bolts with washers to the hanger plate. Loosely tighten 1/2"-13 top lock nuts to all bolts.
4. Install one 9/16"-12 x 1-1/2" bolt with a 9/16" washer inside of the truck frame bumper bracket to the side zee bracket ear. Loosely thread a 9/16"-12 top lock nut to each bolt.
5. Mount the PUSH BEAM to the hanger plate using two 1/2"-13 x 1-1/2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12" from the ground to the center of the beam.*
6. Remove the M12 x 1.75 x 35 (10.9 Gr.) rear spring shackle bolt with tabbed nut on the outside of the frame rail. Position each HANGER SUPPORT PLATE on the outside of the hanger plate and truck frame rail. Reattach the shackle bolt and tabbed nut. Bolt the support plate into the truck frame rail using two 1/2"-13 x 2" bolts. Secure the support plate to the hanger plate and push beam using two 1/2"-13 x 2-1/4" bolts and lock nuts.
7. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
8. Replace the bumper using the existing hardware.
9. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.



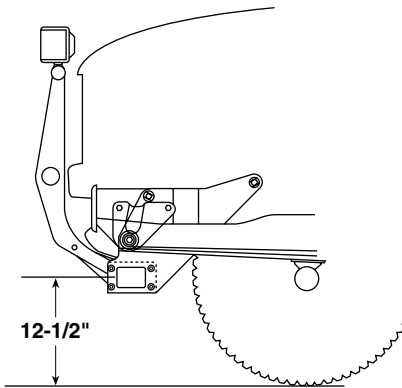


### 1999-PRESENT FORD F-250 & F-350 UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
<b>1A</b>	<b>31035</b>	<b>1</b>	<b>1999-Present Ford F-250 &amp; F-350 Undercarriage Assembly (No. 1 - 17)</b>
1	31034P	1	Passenger's Side Zee Bracket (1999-Present Ford F-250 & F-350)
2	31008P	1	Passenger's Side Hanger Plate (1999-Present Ford F-250 & F-350)
3	31025	1	Passenger's Side Push Beam Support Arm (1999-Present Ford F-250 & F-350)
4	31021	1	32-1/2" Push Beam (1999-Present Ford F-250 & F-350)
4L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
5	31034D	1	Driver's Side Zee Bracket (1999-Present Ford F-250 & F-350)
6	31008D	1	Driver's Side Hanger Plate (1999-Present Ford F-250 & F-350)
7	31023	1	Driver's Side Push Beam Support Arm (1999-Present Ford F-250 & F-350)
8	39032	1	Light Tower, Round Mounting Tube
9	61057	6	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
10	61026	10	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
11	61020	24	1/2"-13 Grade C Z Top Lock Nut
12	61055	8	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
13	61056	2	9/16"-12 x 1-1/2" Grade 8 YZ Hex Cap Screw
14	61059	2	9/16", 1-3/16" O.D., 19/32" I.D. YZ SAE Mil-Carb High-Strength Washer
15	61058	2	9/16"-12 Grade C Z Top Lock Nut
16	61018	4	1/2"-13 x 2" Grade 8 YZ Hex Head Cap Screw
17	61054	6	1/2"-13 x 2-1/4" Grade 8 YZ Hex Head Cap Screw
<b>N/A</b>	<b>61079</b>	<b>1</b>	<b>1999-Present Ford F-250 &amp; F-350 Undercarriage Hardware Kit - Kit Includes: No. 9 - 17</b>

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

# 1999-PRESENT FORD F-450 & F-550 UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



**WARNING:** Most new 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 warning may result in serious injury or death.

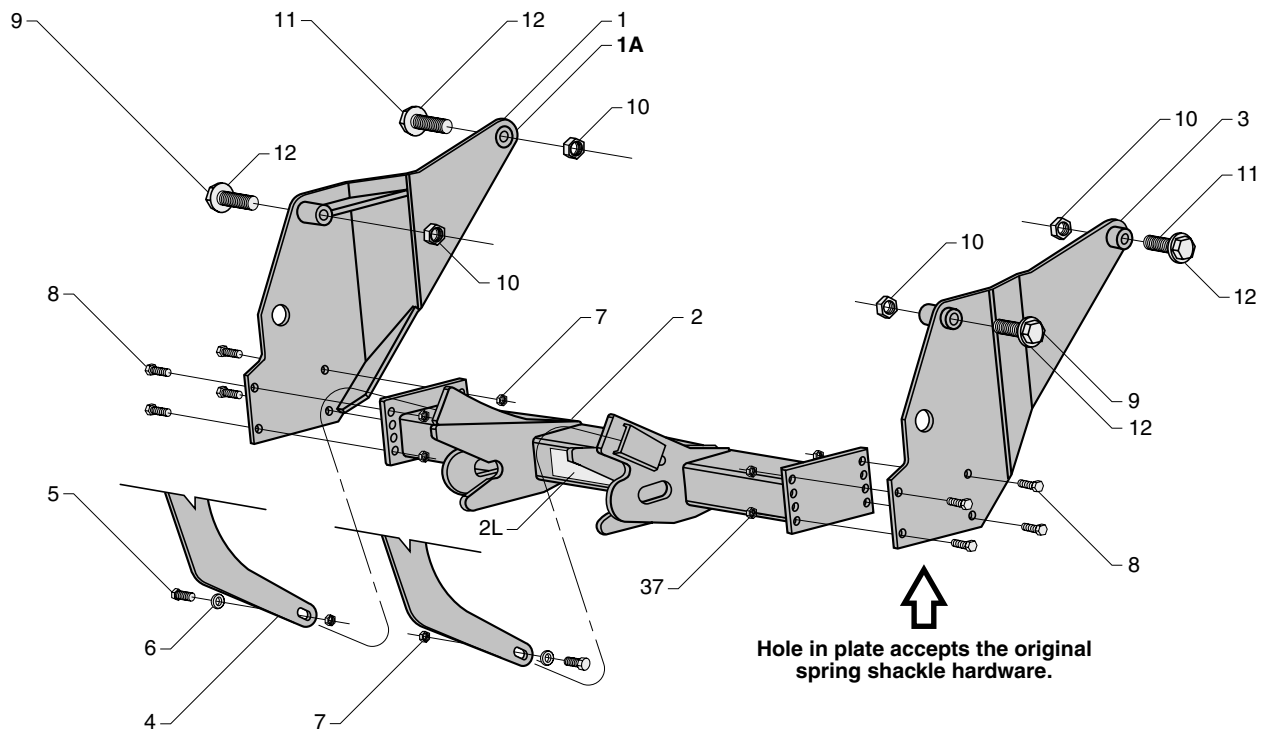


**CAUTION:** If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

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.

1. Begin the assembly by positioning the DRIVER'S SIDE HANGER PLATE on the outside of the truck frame rail and in front of the shock mount. In this position, the plate will locate above the front spring shackle. Attach one 5/8"-11 x 3" bolt and washer through the top rear mount. Secure the bolt with one 5/8" top lock nut. *Note: There are two original openings cut into the frame rail. Use the rear opening to position a top lock nut for the 3" bolt inserted in the front opening.*
2. Position one 5/8"-11 x 4-1/2" bolt and washer through the top front mount. Use a 1" box end wrench to position one 5/8" top lock nut through the truck frame rail opening at the tow hook and securely fasten.
3. Repeat both of the procedures above for the PASSENGER'S SIDE HANGER PLATE.
4. Mount the PUSH BEAM to each hanger plate using four 1/2"-13 x 2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12" from the ground to the center of the beam.*
5. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top locking nuts. Reference the chart on page 4 for maximum bolt torque.
6. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

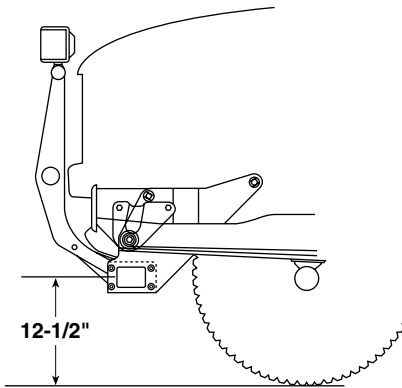


### 1999-PRESENT FORD F-450 & F-550 UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
<b>1A</b>	<b>31037</b>	<b>1</b>	<b>1999-Present Ford F-450 &amp; F-550 Undercarriage Assembly (No. 1 - 12)</b>
1	31027	1	Passenger's Side Hanger Plate (1999-Present Ford F-450 & F-550)
2	31032	1	46" Push Beam (1999-Present Ford F-450 & F-550)
2L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
3	31026	1	Driver's Side Hanger Plate (1999-Present Ford F-450 & F-550)
4	39032	1	Light Tower, Round Mounting Tube
5	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
6	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
7	61020	10	1/2"-13 Grade C Z Top Lock Nut
8	61018	8	1/2"-13 x 2" Grade 8 YZ Hex Head Cap Screw
9	61065	2	5/8"-11 x 4-1/2" Grade 8 YZ Hex Cap Screw
10	61063	4	5/8"-11 Grade C Z Top Lock Nut
11	61066	2	5/8"-11 x 3" Grade 8 YZ Hex Cap Screw
12	61064	4	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
<b>N/A</b>	<b>61081</b>	<b>1</b>	<b>1999-Present Ford F-450 &amp; F-550 Undercarriage Hardware Kit - Kit Includes: No. 5 -12</b>

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

# 1982-1987 CHEVROLET/GMC UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



**WARNING:** Most new 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 warning may result in serious injury or death.

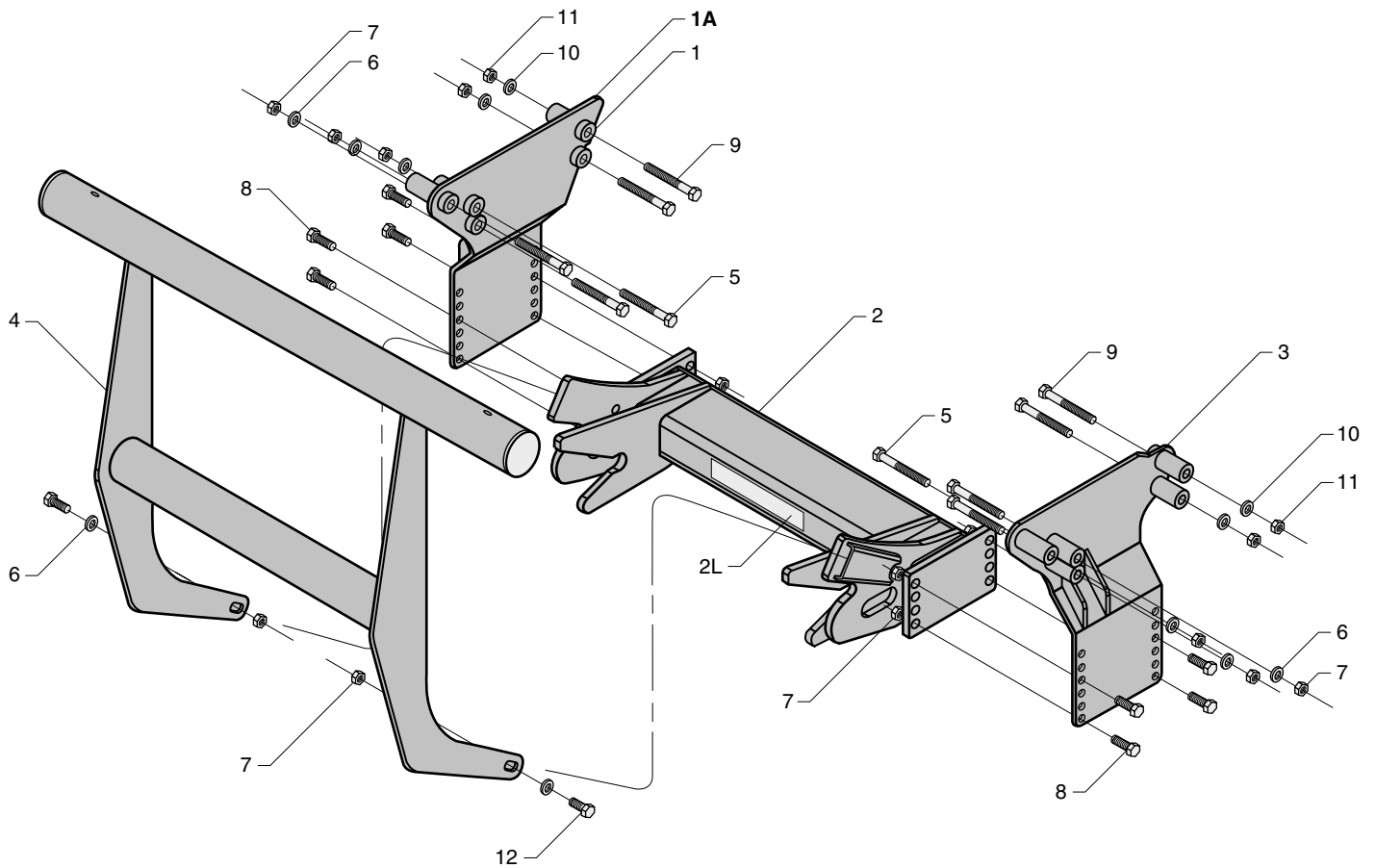


**CAUTION:** If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

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.

1. Begin the assembly by removing (if applicable) both 1/2"-13 x 2-1/2" bolts with washers and nuts that attach each tow hook to the truck frame rail. Discard all hardware.
2. Next, remove both 7/16"-14 x 1-1/4" bolts and 3/8" lock washers from the rear mount of each bumper support bracket. *Note: Each hole contains a welded nut on the inside of the truck frame rail eliminating the need for new hardware; however, top lock nuts and washers are provided should the welded nuts be corroded or the threads have been damaged.*
3. Position the DRIVER'S SIDE HANGER PLATE on the inside of the truck frame rail and in front of the sway bar crossmember. *Note: The bushings should rest against the frame and the gussets should face the vehicle's tires.* Align the top and bottom rear bushings with the holes for the bumper support bracket. Secure the plate with two 7/16"-14 x 4-1/2" bolts. If needed, replace the welded nuts on the frame with the 7/16" washers and top lock nuts provided.
4. Align the three front bushings on the hanger plate with the holes for the tow hook mounts located in the truck frame rail. Position one 1/2"-13 x 4-1/2" bolt through each bushing and secure with one 1/2" washer and top lock nut.
5. Repeat steps #3 & #4 to install the PASSENGER'S SIDE HANGER PLATE.
6. Mount the PUSH BEAM to each hanger plate using four 1/2"-13 x 1-1/2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12-1/2" from the ground to the center of the push beam.*
7. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
8. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" Grade 8 YZ hex cap screws with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

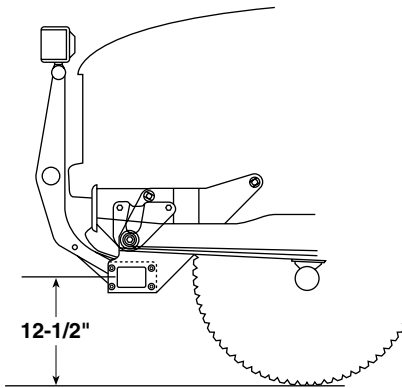


### 1982-87 CHEVROLET/GMC UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
<b>1A</b>	<b>30055</b>	<b>1</b>	<b>1982-1987 Chevrolet/GMC Undercarriage Assembly (No. 1 - 12)</b>
1	30048	1	Passenger's Side Hanger Plate (1982-87 Chevrolet/GMC)
2	30053	1	26-1/4" Push Beam (1982-87 Chev/GMC & 1979-93 Dodge)
2L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
3	30046	1	Driver's Side Hanger Plate (1982-87 Chevrolet/GMC)
4	39032	1	Light Tower, Round Mounting Tube
5	61152	6	1/2"-13 x 4-1/2" Grade 8 YZ Hex Head Cap Screw
6	61026	8	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
7	61020	16	1/2"-13 Grade C Z Top Lock Nut
8	61055	8	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
9	61153	4	7/16"-14 x 4-1/2" Grade 8 YZ Hex Head Cap Screw
10	61162	4	7/16", 59/64" O.D., 15/32" I.D. YZ SAE Mil-Carb High-Strength Washer
11	61154	4	7/16"-14 Grade C Z Top Lock Nut
12	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
<b>N/A</b>	<b>61156</b>	<b>1</b>	<b>1982-1987 Chevrolet/GMC Undercarriage Hardware Kit - Kit Includes: No. 5 - 12</b>

*Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams issued. Always review the part number given for proper component identification.*

# 1988-98 CHEVROLET/GMC 2500 SERIES & 3500 SERIES, 1999-PRESENT 3500 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



**WARNING:** Most new 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 warning may result in serious injury or death.

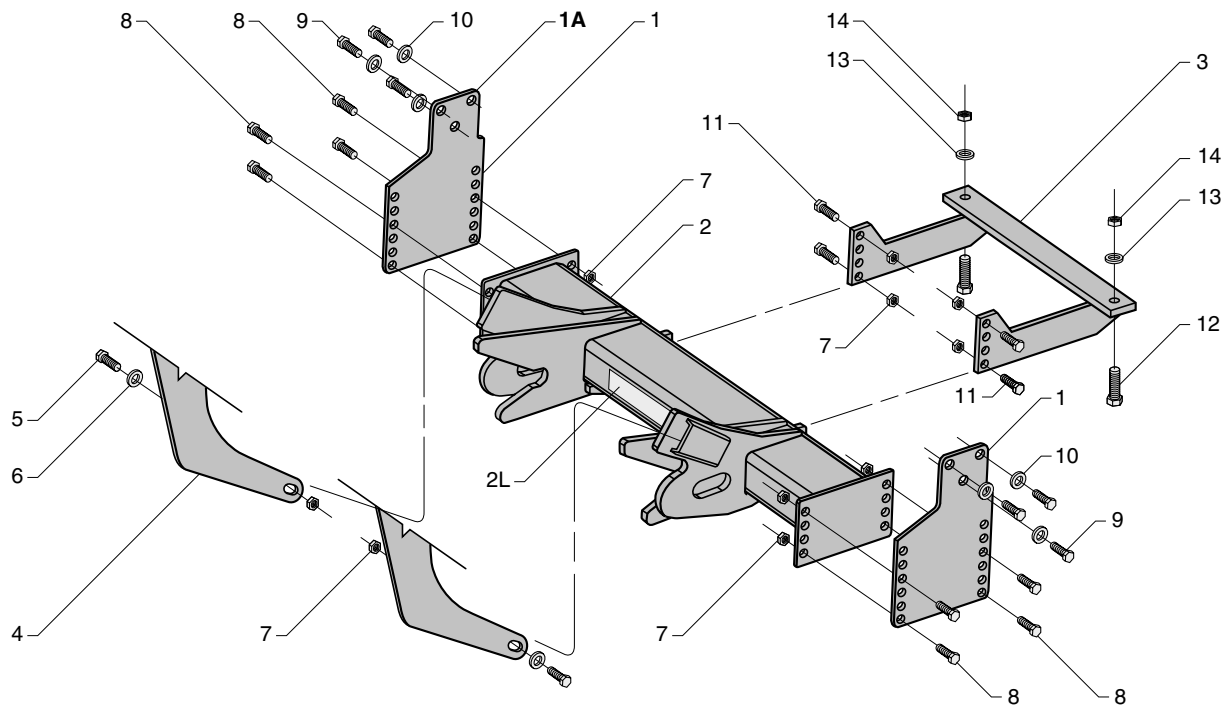


**CAUTION:** If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

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.

1. Begin the assembly by removing the three metric bolts and washers that attach to the CORE SUPPORT MOUNT BRACKET and TRUCK FRAME RAIL on both sides of the truck. Discard all bolts and washers.
2. Position the DRIVER'S SIDE HANGER PLATE on the outside of the truck frame rail and core support mount bracket. Secure three M14 x 2.0 x 45 (8.8 Gr.) bolts with M14 washers through each of the holes. *Note: Each hole contains a welded nut on the inside of the truck frame rail eliminating the need for new hardware. Repeat the same installation for the PASSENGER'S SIDE HANGER PLATE.*
3. Mount the PUSH BEAM to each hanger plate using four 1/2"-13 x 1-1/2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12" from the ground to the center of the beam.*
4. Position the PUSH BEAM SUPPORT ARMS on the inside of the mounting brackets at the rear of the push beam. Secure each arm with four 1/2"- 13 x 1-3/4" bolts and 1/2" top lock nuts.
5. Secure the push beam support arms to the TRUCK FRAME CROSS-MEMBER with two 5/8"-11 x 2" bolts with washers and 5/8" nuts. *Note: The washers and nuts need to be positioned inside of the truck frame crossmember. Access to the interior of the crossmember can be found either behind the crossmember (older models) or to either side of it (newer models) depending on the date of manufacture.*
6. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
7. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

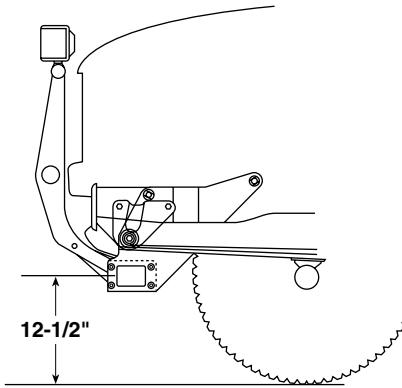
Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.



<b>1988-98 CHEV/GMC 2500 &amp; 3500 SERIES, 1999-PRESENT 3500 SERIES UNDERCARRIAGE PARTS LIST</b>			
<b>Ref. No.</b>	<b>Part No.</b>	<b>Qty.</b>	<b>Part Description</b>
<b>1A</b>	<b>30043</b>	<b>1</b>	<b>1988-1998 Chevrolet/GMC 2500 &amp; 3500 Series, 1999-Present Chev/GMC 3500 Series Undercarriage Assembly (No. 1 - 14)</b>
1	30032	2	Passenger's & Driver's Side Hanger Plate (1988-98 Chev/GMC 2500 & 3500, 1999-Present Chev/GMC 3500)
2	30033	1	34-3/32" Push Beam (1988-98 Chev/GMC 2500 & 3500, 1999-Present Chev/GMC 3500)
2L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
3	30038	1	Push Beam Support Arm (1988-98 Chev/GMC 2500 & 3500, 1999-Present Chev/GMC 3500)
4	39032	1	Light Tower, Round Mounting Tube
5	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
6	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
7	61020	14	1/2"-13 Grade C Z Top Lock Nut
8	61055	8	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
9	61072	6	M14-2.0 x 45 Grade 8.8 Z Hex Head Cap Screw
10	61074	6	M14 I.D., 28 O.D. Z Flat Washer
11	61150	4	1/2"-13 x 1-3/4" Grade 8 YZ Hex Head Cap Screw
12	61071	2	5/8"-11 x 2" Grade 8 YZ Hex Cap Screw
13	61064	2	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
14	61063	2	5/8"-11 Grade C Z Top Lock Nut
<b>N/A</b>	<b>61077</b>	<b>1</b>	<b>1988-1998 Chevrolet/GMC 2500 &amp; 3500 Series, 1999-Present Chevrolet/GMC 3500 Series Undercarriage Hardware Kit - Kit Includes: No. 5 - 14</b>

*Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.*

# 1988-2000 CHEV/GMC 1 TON HEAVY-DUTY 2WD UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



**WARNING:** Most new 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 warning may result in serious injury or death.



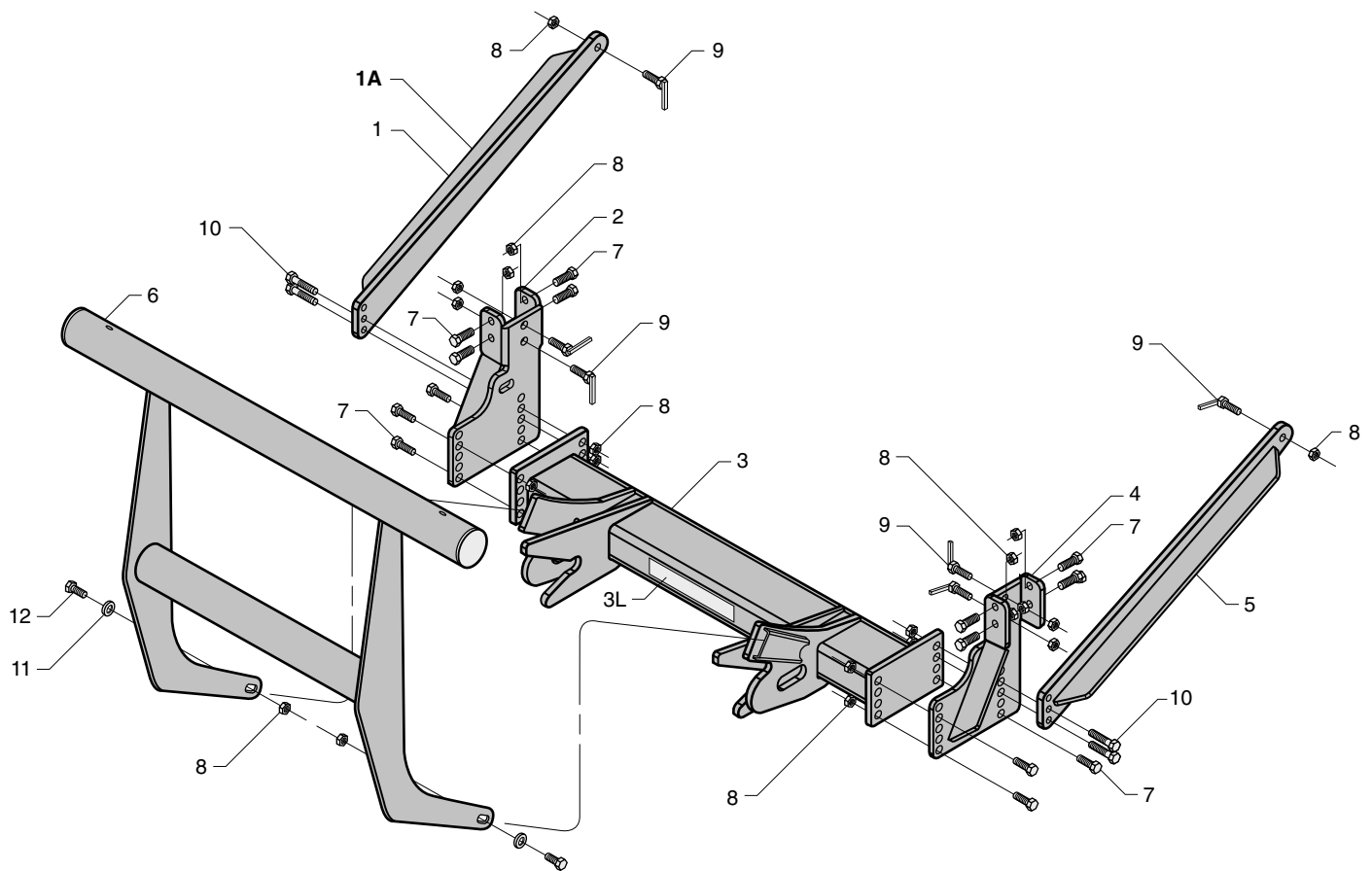
**CAUTION:** If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

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.

1. Begin the assembly by removing both M12-1.75 x 35 (8.8 Gr.) bolts with washers and flanged nuts from the rear mount of each bumper support bracket. Discard all hardware.
2. Next, position the DRIVER'S SIDE HANGER PLATE on the outside of the truck frame rail and into the core support mount on the frame. *Note: The cut-out in the hanger plate fits over the leaf spring clamp bolt.* Align the holes from the bumper support bracket mount to those on the hanger plate and secure using two 1/2"-13 x 1-1/2" bolts and 1/2" top lock nuts. Secure two additional 1/2"-13 x 1-1/2" bolts and nuts opposite the bumper support mount hardware.
3. Complete the hanger plate installation by installing two 1/2"-13 x 1-1/2" bolts with welded tabs through the middle mount holes. Attach a thin gauge wire to each screw and feed the wire through the opening in the frame at the spring shackle bolt. Pull the wire and hex cap screw through the bottom mount hole in the frame and hanger plate. Secure the cap screw with a 1/2" top lock nut. Repeat the same procedure for the top mount hole.
4. Repeat steps #2 & #3 to install the PASSENGER'S SIDE HANGER PLATE.
5. Mount the PUSH BEAM to the front hanger plate mount holes using four 1/2"-13 x 1-1/2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12-1/2" from the ground to the center of the push beam.*
6. Align the hole in the DRIVER'S SIDE PUSH BEAM SUPPORT ARM to the mount hole on the frame in front of the vehicle shock mount. Secure the support arm by "snaking" a 1/2"-13 x 1-1/2" bolt with welded tab through the opening in the frame at the spring shackle bolt. Pull the wire and bolt through the mount hole in the frame and support arm. Secure the bolt with a 1/2" top lock nut. Next, align the holes in the support arm to the rear mount holes on the hanger plate and push beam. Secure the plates using two 1/2"-13 x 2-1/4" bolts and 1/2" top lock nuts. Position a third bolt (1/2"-13 x 1-1/2") through the bottom mount hole in the hanger plate and push beam and secure with one 1/2" top lock nut.
7. Repeat step #6 to install the PASSENGER'S SIDE PUSH BEAM SUPPORT ARM.
8. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
9. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" Grade 8 YZ hex cap screws with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.



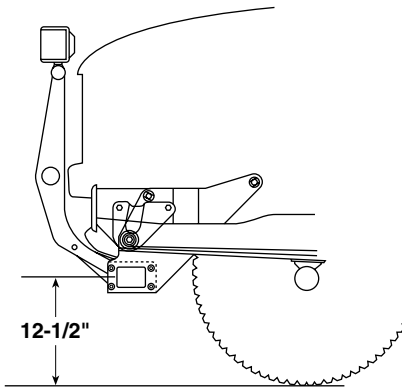


### 1988-2000 CHEVROLET/GMC 1 TON HD 2WD UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
<b>1A</b>	<b>30071</b>	<b>1</b>	<b>1988 - 2000 Chevrolet/GMC 1 Ton Heavy-Duty 2WD Undercarriage Assembly (No. 1 - 12)</b>
1	30063	1	Passenger's Side Push Beam Support Arm (1988-2000 Chev/GMC 1 Ton HD 2WD)
2	30064	1	Passenger's Side Hanger Plate (1988-2000 Chev/GMC 1 Ton HD 2WD)
3	30070	1	37" Push Beam (1988-2000 Chev/GMC 1 Ton HD 2WD)
3L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
4	30065	1	Driver's Side Hanger Plate (1988-2000 Chev/GMC 1 Ton HD 2WD)
5	30067	1	Driver's Side Push Beam Support Arm (1988-2000 Chev/GMC 1 Ton HD 2WD)
6	39032	1	Light Tower, Round Mounting Tube
7	61055	14	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
8	61020	26	1/2"-13 Grade C Z Top Lock Nut
9	61151	6	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw with Welded Tab
10	61054	4	1/2"-13 x 2-1/4" Grade 8 YZ Hex Head Cap Screw
11	61026	8	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
12	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
<b>N/A</b>	<b>61160</b>	<b>1</b>	<b>1988 - 2000 Chevrolet/GMC 1 Ton Heavy-Duty 2WD Undercarriage Hardware Kit - Kit Includes: No. 7 - 12</b>

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams issued. Always review the part number given for proper component identification.

# 1999-PRESENT CHEVROLET/GMC 2500 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



**WARNING:** Most new 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 warning may result in serious injury or death.

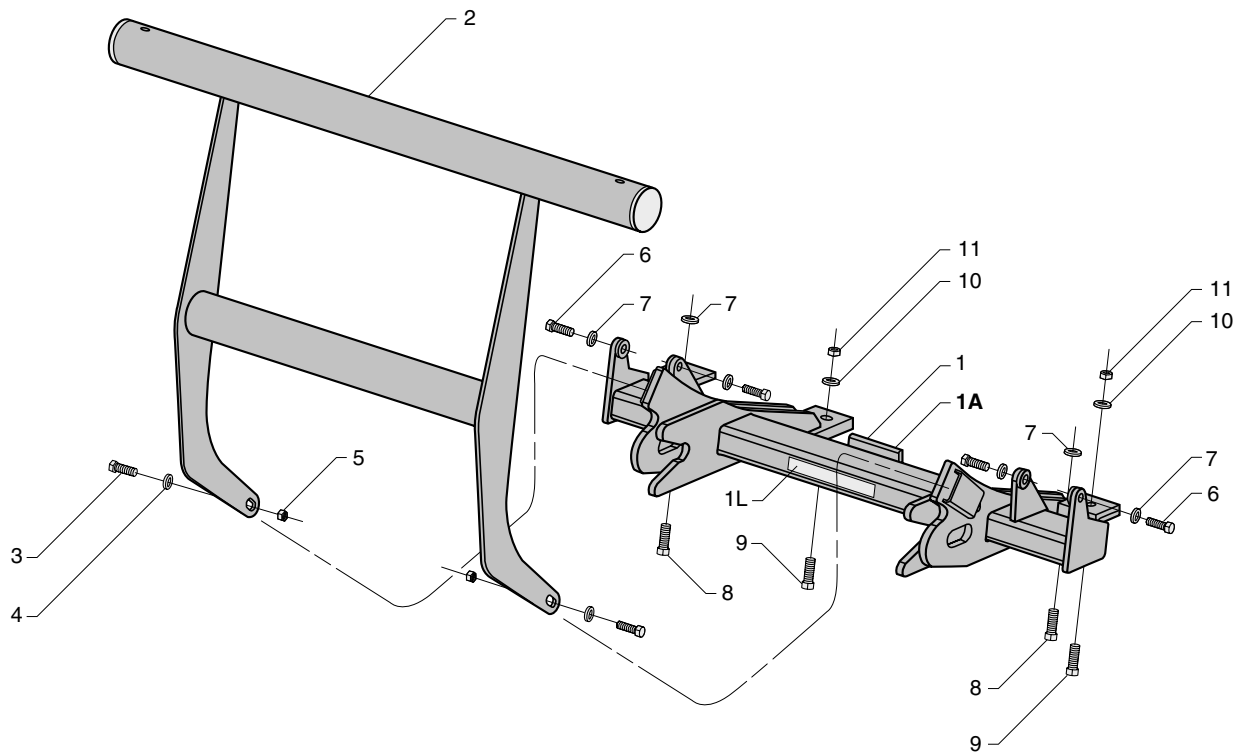


**CAUTION:** If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

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.

1. Begin the installation by removing the plastic airfoil mounted to the bottom of the front bumper. *Note: The airfoil will need to be permanently removed or notched to accommodate the undercarriage assembly.*
2. Remove and discard the three bolts that secure each tow hook to the truck frame. The tow hooks should remain in the same position.
3. Align the undercarriage mounting pockets (at each end of the push beam) with the tow hook mounting brackets on the vehicle. *Note: Use a hydraulic floor jack to help facilitate the installation procedure.*
4. Install two M12 x 1.75 x 45 (8.8 Gr.) bolts with M12 washers to the side tow hook mount for each end of the assembly. *Note: Loosely attach all nuts until the remaining hardware is in position.*
5. Proceed to install one M12 x 1.75 x 40 (8.8 Gr.) bolt with an M12 washer through the truck frame and rear tow hook mount for each side of the push beam. Both bolts will tighten into the existing tow hook.
6. Install the the two 5/8"-11 x 2-1/4" bolts and 5/8" washers through the rear support arms and truck frame crossmember. Secure each bolt with a 5/8"-11 top lock nut.
7. Once the undercarriage is positioned with the appropriate hardware, tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
8. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top lock nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

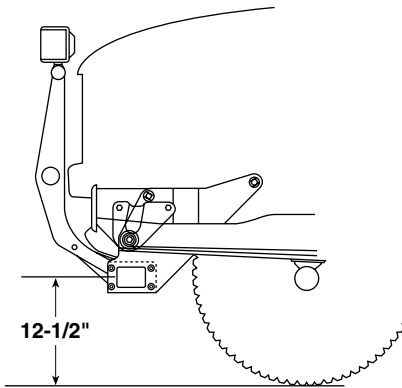


### 1999-PRESENT CHEVROLET/GMC 2500 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
<b>1A</b>	<b>30042</b>	<b>1</b>	<b>1999-Present Chevrolet / GMC 2500 Series Undercarriage Assembly (No. 1 - 11)</b>
1	30037	1	37" Push Beam (1999-Present Chev/GMC 2500 Series)
1L	61128	1	1-1/2" x 9" Push Beam Decal
2	39032	1	Light Tower, Round Mounting Tube
3	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
4	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
5	61020	2	1/2"-13 Grade C Z Top Lock Nut
6	61068	4	M12-1.75 x 45 Grade 8.8 Z Hex Head Cap Screw
7	61070	6	M12 I.D., 24 O.D. Z Flat Washer
8	61069	2	M12-1.75 x 40 Grade 8.8 Z Hex Head Cap Screw
9	61067	2	5/8"-11 x 2-1/4" Grade 8 YZ Hex Cap Screw
10	61064	2	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
11	61063	2	5/8"-11 Grade C Z Top Lock Nut
<b>N/A</b>	<b>61076</b>	<b>1</b>	<b>1999-Present Chevrolet / GMC 2500 Series Undercarriage Hardware Kit - Kit Includes: No. 3 - 11</b>

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

# 1979-1993 DODGE UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



**WARNING:** Most new 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 warning may result in serious injury or death.

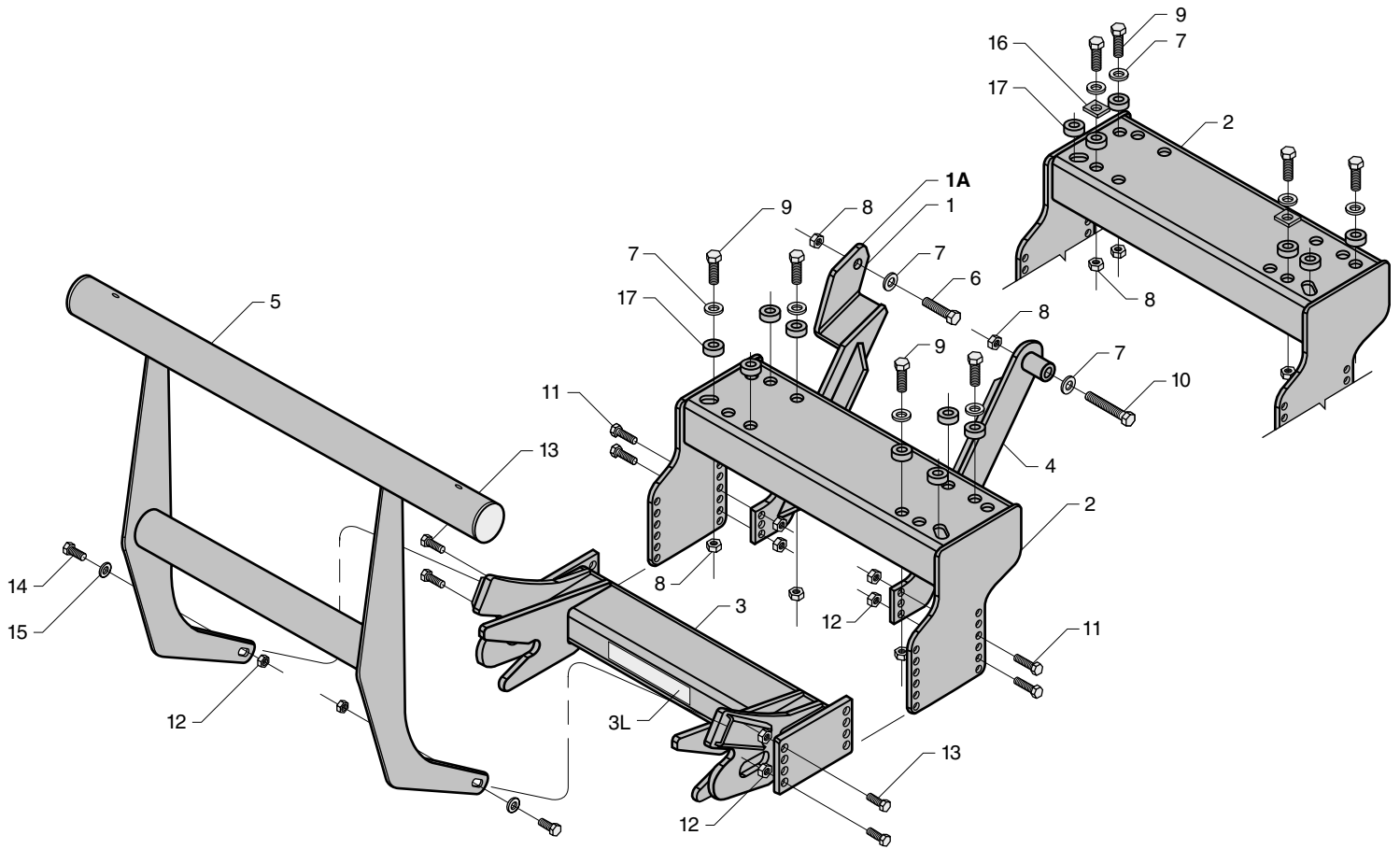


**CAUTION:** If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

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.

1. Begin the assembly by mounting the HANGER PLATE WELDMENT to the front crossmember. *Note: Depending on the model of your vehicle, the hole locations in the crossmember may be different. Review the diagram to the right for proper bushing and/or spacer mount positions.* Once you have determined the mount locations for the hanger plate, insert the STEPPED BUSHINGS and SPACERS (if needed) into position. Secure the hanger plate to the crossmember using four 5/8"-11 x 2" Grade 8 YZ hex cap screws with washers and top lock nuts.
2. Mount the PUSH BEAM to the front hanger plate mount holes using four 1/2"-13 x 1-1/2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12-1/2" from the ground to the center of the push beam.*
3. Align the hole in the DRIVER'S SIDE PUSH BEAM SUPPORT ARM to the mount hole on the frame located behind the steering box. *Note: The support arm mounts on the inside of the truck frame rail and leaf spring.* Secure the arm to the frame with one 5/8"-11 x 4" bolt, washer and top lock nut. Complete the support arm installation by aligning the holes in the arm to the rear mount holes on the inside of the hanger plate and push beam. Secure the arm with two 1/2"-13 x 1-3/4" bolts and top lock nuts.
4. Next, position the PASSENGER'S SIDE PUSH BEAM SUPPORT ARM on the outside of the truck frame rail and inside of the leaf spring. Align the hole in the support arm with the mount hole on the frame located approximately 14" back from the core support mount. Secure the arm to the frame with one 5/8"-11 x 1-3/4" bolt, washer and top lock nut. Complete the mount by fastening the arm to the rear mount holes on the inside of the hanger plate with two 1/2"-13 x 1-3/4" bolts and top lock nuts.
5. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
6. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" Grade 8 YZ hex cap screws with washers. Secure each bolt with a 1/2" top lock nut. Mount each PLOW HEADLIGHT to the light tower with hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.



### 1979-93 DODGE UNDERCARRIAGE PARTS LIST

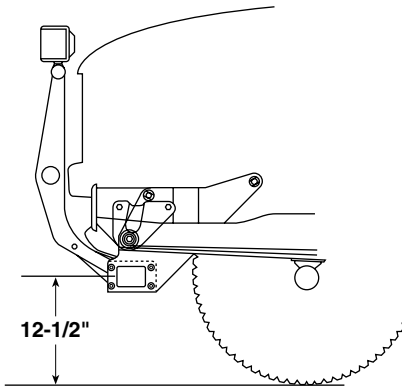
Ref. No.	Part No.	Qty.	Part Description
<b>1A</b>	<b>32034</b>	<b>1</b>	<b>1979-1993 Dodge Undercarriage Assembly (No. 1 - 17)</b>
1	32031	1	Passenger's Side Hanger Plate Support Arm (1979-93 Dodge)
2	32023	1	Passenger's Side & Driver's Side Hanger Plate Weldment (1979-93 Dodge)
3	30053	1	26-1/4" Push Beam (1979-93 Dodge & 1982-87 Chev/GMC)
3L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
4	32032	1	Driver's Side Hanger Plate Support Arm (1979-93 Dodge)
5	39026	1	Light Tower, Round Mounting Tube
6	61060	1	5/8"-11 x 1-3/4" Grade 8 YZ Hex Head Cap Screw
7	61064	6	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
8	61063	6	5/8"-11 Grade C Z Top Lock Nut
9	61071	4	5/8"-11 x 2" Grade 8 YZ Hex Head Cap Screw
10	61155	1	5/8"-11 x 4" Grade 8 YZ Hex Head Cap Screw
11	61150	4	1/2"-13 x 1-3/4" Grade 8 YZ Hex Head Cap Screw
12	61020	10	1/2"-13 Grade C Z Top Lock Nut
13	61055	4	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
14	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
15	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
*16	32035	2	1-1/2" x 1/4" x 1-1/4" Spacer with 11/16" Dia. Hole
**17	52011	8	1-1/2" O.D., 5/8" I.D., 3/4" Stepped Bushing
N/A	32036	1	1979-93 Dodge Bushing & Spacer Kit - Kit Includes: No. 16 - 17
<b>N/A</b>	<b>61158</b>	<b>1</b>	<b>1979-93 Dodge Undercarriage Hardware Kit - Kit Includes: No. 6 - 17</b>

\* Both spacers are used on the front, inside stepped bushings located on top of the hanger plate weldment. These are only needed for the Dodge (1 ton) Undercarriage.

\*\* Depending on the vehicle, the quantity and location of the stepped bushings to be used can change. The (3/4 ton) requires 8 stepped bushings and the (1 ton) has 6. Refer to the diagram above for proper bushing orientation.

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams issued. Always review the part number given for proper component identification.

# 1994-PRESENT DODGE 2500 & 3500 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



**WARNING:** Most new 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 warning may result in serious injury or death.

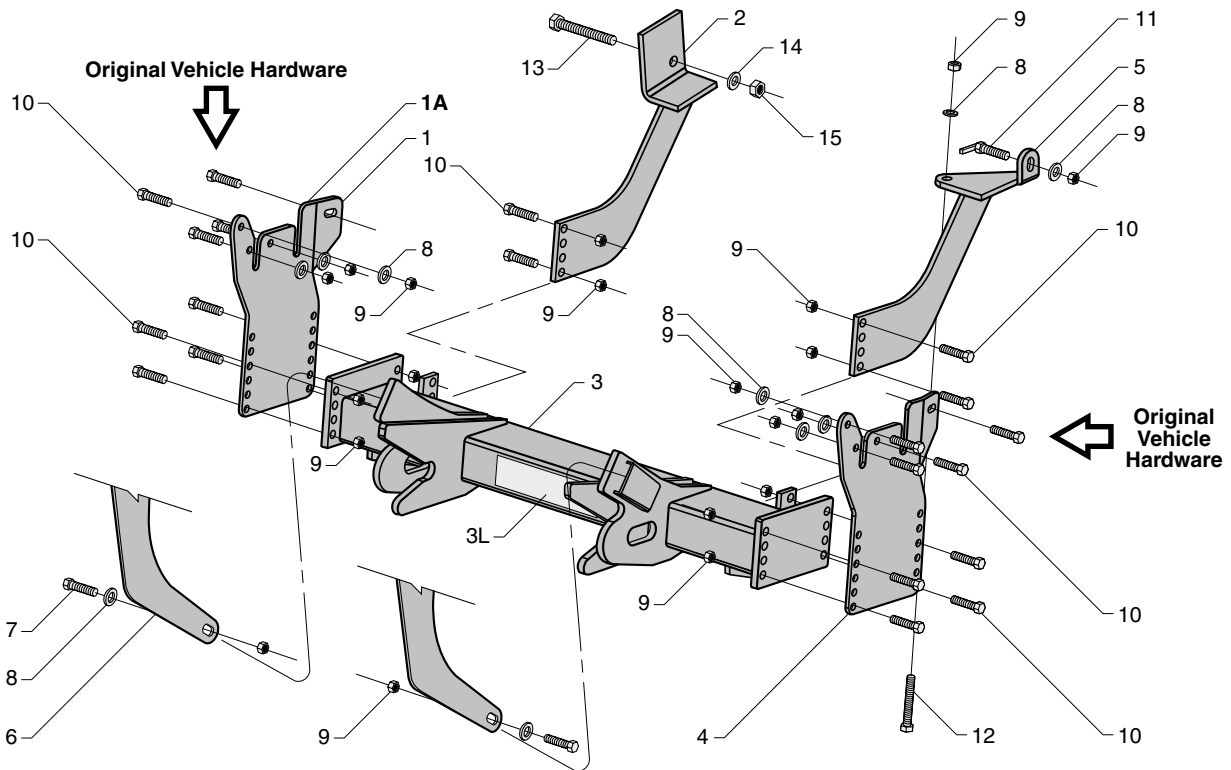


**CAUTION:** If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

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.

1. Begin the undercarriage assembly by removing the six M12 x 1.75 x 45 (8.8 Gr.) bolts that attach the bumper to the TRUCK FRAME RAIL.
2. Remove both M12 x 1.75 x 45 (8.8 Gr.) bolts from the BUMPER SUPPORT ARMS that attach to the truck frame rail.
3. Proceed to install each HANGER PLATE to the outside of the truck frame rail using three 1/2"-13 x 1-1/2" bolts with 1/2" washers and top lock nuts.
4. Attach the bumper support arms to the rear hanger plate mount using the original vehicle hardware.
5. Install the PASSENGER'S SIDE PUSH BEAM SUPPORT ARM to the truck frame rail in front of the engine crossmember (bottom hole). Secure with one 5/8"-11 x 4-1/2" bolt, washer and a top lock nut.
6. Install the DRIVER'S SIDE PUSH BEAM SUPPORT ARM to the truck frame rail and crossmember located under the steering shaft. Mount one 1/2"-13 x 5" bolt and washer from the underside of the crossmember and secure with one top lock nut.
7. Proceed to install one 1/2"-13 x 1-1/2" bolt with welded tab on the driver side support arm to the truck frame rail. "Snake" the welded bolt through the access hole behind the support arm on the truck frame rail using a stiff wire. Position the bolt through the hole with the welded tab on the interior of the rail. *Note: The welded tab will prohibit the bolt from turning while tightening the 1/2" nut and washer.*
8. Attach the PUSH BEAM to each hanger plate using eight 1/2"-13 x 1-1/2" bolts. Attach both push beam support arms to the brackets at the rear of the push beam using four 1/2"-13 x 1-1/2" bolts. Secure all bolts with 1/2" top lock nuts.
9. Once the undercarriage is positioned with the appropriate hardware, tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
10. Replace the bumper and bumper support arms with the original hardware.
11. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top lock nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.



### 1994-PRESENT DODGE 2500 & 3500 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
<b>1A</b>	<b>32012</b>	<b>1</b>	<b>1994-Present Dodge 2500 &amp; 3500 Series Undercarriage Assembly (No. 1 - 15)</b>
1	32019P	1	Passenger's Side Hanger Plate (1994-Present Dodge 2500 & 3500)
2	32014	1	Passenger's Side Push Beam Support Arm (1994-Present Dodge 2500 & 3500)
3	32005	1	36-1/4" Push Beam (1994-Present Dodge 2500 & 3500)
3L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
4	32019D	1	Driver's Side Hanger Plate (1994-Present Dodge 2500 & 3500)
5	32017	1	Driver's Side Push Beam Support Arm (1994-Present Dodge 2500 & 3500)
6	39032	1	Light Tower, Round Mounting Tube
7	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
8	61026	10	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
9	61020	22	1/2"-13 Grade C Z Top Lock Nut
10	61055	18	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
N/A	61068	2	M12-1.75 x 45 Grade 8.8 Z Hex Head Cap Screw
N/A	61070	2	M12 I.D., 24 O.D. Z Flat Washer
11	61151	1	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw with Welded Tab
12	61075	1	1/2"-13 x 5" Grade 8 YZ Hex Head Cap Screw
13	61065	1	5/8"-11 x 4-1/2" Grade 8 YZ Hex Cap Screw
14	61064	1	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
15	61063	1	5/8"-11 Grade C Z Top Lock Nut
<b>N/A</b>	<b>61078</b>	<b>1</b>	<b>1994-Present Dodge 2500 &amp; 3500 Series Hardware Kit - Kit Includes: No. 7 - 15, 61068, 61070</b>

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

# TROUBLESHOOTING GUIDE

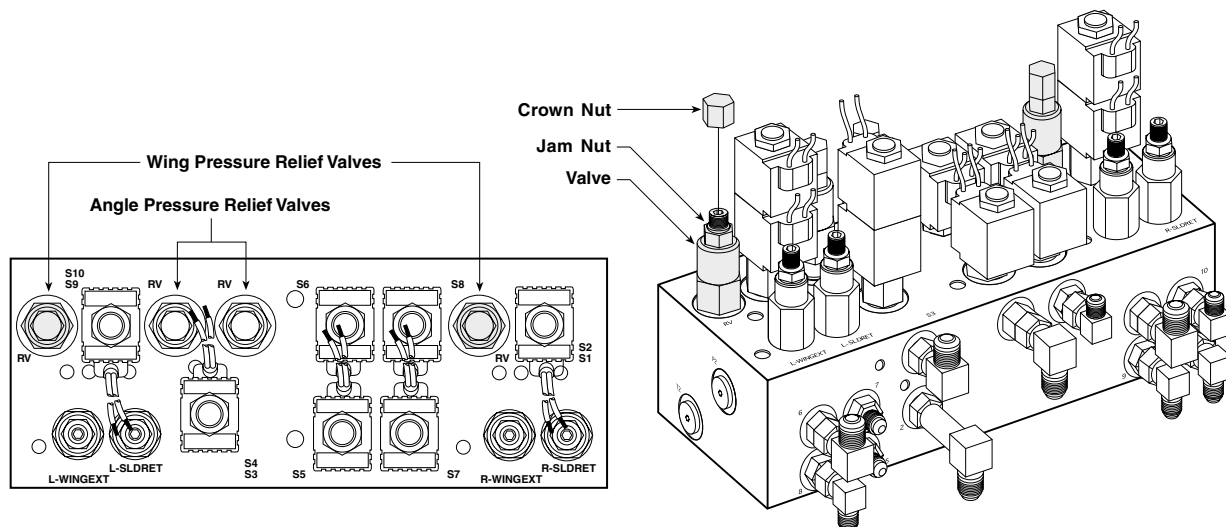
Prior to diagnosing your Power Plow, verify that all connectors (plow and vehicle wire harness plugs, headlight adapters, control box, fused hot lead, draw latch switch, solenoid ground wire harness, coil wire lead harness, plow headlight harnesses) are free of corrosion and are well lubricated with white lithium grease. Insuring that all connectors are in good working order will save time in determining your snowplow's service needs.

Problem	Probable Cause(s)	Suggested Remedy
Pump will not run.	Plow wire harness and vehicle wire harness may not be properly connected.	Verify the wire harness is properly connected. Review the instruction on pages 9-11.
	Ground cables to the battery, manifold or solenoid may not be properly connected.	Properly connect all cables. Clean and lubricate with white lithium grease.
Pump will not run, no power to the solenoid.	The red, power wire and brown, activation wire on the solenoid are not properly connected.	Properly connect both cables. Test for power by initiating any rocker switch function except the float. Note: The POWER rocker switch must be in the "ON" position to properly test any plow function. No power, diagnose plow & truck wire harness.
Pump will not run with power to the solenoid.	The red, hot wire to the pump motor is not properly connected.	Connect red wire. If problem is not resolved, the solenoid could be seized or the pump motor may be worn. Replace solenoid.
Pump will not turn off.	Pump solenoid may be damaged.	Disconnect the brown activation wire from the solenoid. If the problem is not resolved, replace the solenoid.
	Diode pack may be corroded.	Clean diode pack thoroughly and/or replace.
	Short in the control box or wire harness.	Disconnect the control box in the cab. If the solenoid turns off, there is a short in the electrical system.
Pump runs but plow functions are slow.	Fluid level in the pump reservoir is low. Fluid is leaking.	Add fluid to within 3/4" from the top of the tank. Check for leaks around the pump, manifold and cylinders.
	System pressure may be set too low.	Adjust the pressure. Remove the hex cap on top of the pump and turn the screw clockwise 1/8 turn. Proper system pressure should be set at 1500 PSI. Test functions and repeat procedure as needed.
	Voltage from the vehicle's alternator is too low.	Repair or replace vehicle alternator. Voltage must be no less than 11.8 volts.
	Pump filter may be clogged.	Remove the pump tank and thoroughly clean the filter.
A-frame latch will not move.	Draw latch is binding the A-frame latch.	Lift the draw latch to relieve binding on the A-frame latch and reposition the A-frame latch as needed.
Plow will not lift. Pump works properly.	Control station in the cab may not be properly connected.	Connect the power connector from the control to the vehicle wire harness.
	A-frame latch is in the (down) locked position.	Lift the A-frame latch into the raised position.
	Solenoid may be damaged.	Remove both S6 & S7 solenoids from the cartridge valves. Position a screwdriver inside of the solenoid and push the draw latch connect/disconnect toggle switch upward. The solenoid should be magnetically drawn to the screwdriver. Replace solenoid if there is no action.



Problem	Probable Cause(s)	Suggested Remedy
	Hydraulic lock in the manifold.	Loosen cartridge valve S5 or S8 to relieve pressure and retighten. DO NOT OVERTIGHTEN!
	Solenoid cartridge valve may be contaminated.	Remove any foreign objects that may be obstructing proper valve operation. Replace if not operating properly after cleaning.
Wing will not stay angled when plowing.	The wing pressure relief valve is set too low. NOTE: Increasing the pressure relief valve will cause damage to your plow. Do not set the pressure relief greater than 900 PSI.	Test the wing pressure relief. Attach a T-fitting with a fluid PSI gauge to the base end of the wing cylinder. Pressure relief should not be greater than 900 PSI. Review the illustration below to increase the pressure relief settings.
Plow will not stay angled when plowing.	The angle pressure relief valve is set too low. NOTE: Increasing the pressure relief valve will cause damage to your plow. Do not set the pressure relief greater than 3000 PSI.	Follow the guidelines indicated above; however, the PSI setting should not exceed 3000 PSI. NOTE: If the plow is floating back when angled to the right, adjust the left pressure relief valve and vice versa.
Wing will not move, pump works.	Control station, wire harness or cables may be loose or improperly connected.	Verify control station, wire harness and all cables are securely connected. Clean if necessary.
	Hydraulic lock in manifold.	Loosen cartridge valves S9 & S10 or S1 & S2 to relieve pressure and retighten. DO NOT OVERTIGHTEN!
	No power to the solenoid.	Verify solenoids S1 & S2 (passenger's side slide box retract and extend) and S9 & S10 (driver's side slide box retract and extend) are connected properly. Diagnose the wire harness. Review the plow wire schematic on page 27 and the vehicle wire schematic on page 31. If power is present, review the next step.
	Solenoids are not receiving power.	Verify that the solenoids are magnetizing. Position a screwdriver inside of the solenoid. When the respective function is activated, the screwdriver is drawn to the side of the solenoid. If the solenoid is not drawn to the screwdriver, replace the solenoid. If power is present, review the next step.
	Solenoid cartridge may be contaminated or damaged. A bent cartridge will not allow the valve to move freely inside of the cartridge.	Determine a damaged cartridge valve by reversing the driver's side and passenger's side cartridge valves. Replace valve if necessary.
Plow will not angle, pump works.	Review all probable causes above.	NOTE: Verify solenoids S3 & S4 for angle functions.

Should your snowplow develop other problems not indicated in the Troubleshooting Guide, contact your local dealer for technical assistance and/or replacement parts. Technical support can also be obtained calling our Customer Service Department at 1-888-680-8600, Monday - Friday, 8AM - 5PM EST.





## LIMITED CONSUMER WARRANTY

This warranty covers defects in material and workmanship except as set forth below.

### WARRANTED PARTY:

This warranty applies only to the "Original Purchaser" who purchased this plow from an Authorized Blizzard Dealer, for personal, family or household use.

### TERM OF WARRANTY:

This Blizzard Power Plow is warranted for the following period:  
Parts and labor are warranted for one year from date of purchase.

### BLIZZARD CORPORATION'S WARRANTY REMEDY:

Blizzard Corporation will, at its sole discretion, repair or replace defective parts at no charge.

### CUSTOMERS RESPONSIBILITY:

To obtain warranty service, the purchaser must return the defective snowplow to any Authorized Blizzard Dealer. The purchaser must verify the original purchase date. Transportation costs to and from the dealer will be the responsibility of the purchaser.

### ITEMS NOT COVERED UNDER THIS WARRANTY:

This limited warranty does not cover the following:

1. Expendable parts such as cutting edges, plow shoes, hoses, fasteners, blade guides, paint finish, etc.
2. Any snowplow or part thereof which has been repaired or altered by anyone other than an Authorized Blizzard Dealer.
3. Any snowplow or part thereof which has been subject to neglect, misuse, accident, improper installation, maintenance, or storage.
4. Snowplows mounted on vehicles other than those for whom Blizzard Corporation has provided a specific undercarriage system.
5. Blizzard Corporation does not assume liability for damage to the purchaser's vehicle resulting from the attachment and use of a Blizzard Power Plow. Vehicle risk is the sole responsibility of the purchaser.

### WARRANTY LIMITATIONS:

THIS WARRANTY IS OFFERED IN LIEU OF ANY OTHER EXPRESS WARRANTY.

THE DURATION OF ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS WARRANTY.

BLIZZARD CORPORATION'S LIABILITY IS EXPRESSLY LIMITED TO REPAIR OR REPLACEMENT OF DEFECTIVE PARTS. BLIZZARD CORPORATION SHALL NOT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR CONTINGENT DAMAGES WHATSOEVER, EVEN IF DAMAGES ARE CAUSED BY THE NEGLIGENCE OR FAULT OF BLIZZARD CORPORATION.

**State Laws:** Some states do not allow exclusion of incidental or consequential damages or the limitations on how long an implied warranty lasts, so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

This warranty does not apply if you purchased your snowplow for other than personal, family, or household use. If purchased for other than personal, family or household use, refer to the Blizzard Power Plow Commercial Warranty.



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## COMMERCIAL WARRANTY

This warranty covers defects in material and workmanship except as set forth below.

### WARRANTED PARTY:

This warranty applies only to the "Original Purchaser" who purchased this plow from an Authorized Blizzard Dealer, for commercial use.

### TERM OF WARRANTY:

This Blizzard Power Plow is warranted for the following period:  
Parts and labor are warranted for one year from date of purchase.

### BLIZZARD CORPORATION'S WARRANTY REMEDY:

Blizzard Corporation will, at its sole discretion, repair or replace defective parts at no charge.

### CUSTOMERS RESPONSIBILITY:

To obtain warranty service, the purchaser must return the defective snowplow to any Authorized Blizzard Dealer within the warranty period. The purchaser must verify the original purchase date. Transportation costs to and from the Dealer will be the responsibility of the purchaser.

### ITEMS NOT COVERED UNDER THIS WARRANTY:

This warranty does not cover the following:

1. Expendable parts such as cutting edges, plow shoes, hoses, fasteners, blade guides, paint finish, etc.
2. Any snowplow or part thereof which has been repaired or altered by anyone other than an Authorized Blizzard Dealer.
3. Any snowplow or part thereof which has been subject to neglect, misuse, accident, improper installation, maintenance, or storage.
4. Snowplows mounted on vehicles other than those for whom Blizzard Corporation has provided a specific undercarriage system.
5. Blizzard Corporation does not assume liability for damage to the purchaser's vehicle resulting from the attachment and use of a Blizzard Power Plow. Vehicle risk is the sole responsibility of the purchaser.

### LIMITS OF BLIZZARD CORPORATION'S LIABILITIES:

BLIZZARD CORPORATION'S LIABILITY IS EXPRESSLY LIMITED TO REPAIR OR REPLACEMENT OF DEFECTIVE PARTS. BLIZZARD CORPORATION SHALL NOT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR CONTINGENT DAMAGES WHATSOEVER, EVEN IF DAMAGES ARE CAUSED BY THE NEGLIGENCE OR FAULT OF BLIZZARD CORPORATION.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESSED AND IMPLIED WARRANTIES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

This warranty does not apply if you purchased your snowplow for personal, family, or household use. In this case, refer to the Blizzard Power Plow Limited Consumer Warranty.



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2000/01 ASSEMBLY & OPERATION MANUAL  
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