



## Introduction

Congratulations on purchasing the most advanced all-season skid steer snowplow attachment available! The Blizzard Power Plow Model 810SS 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. 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. Turn your Power Plow into an all-season skid steer blade with an easy to install optional trip-lock assembly. This one piece accessory replaces the standard trip springs to provide a rigid grading blade. 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:

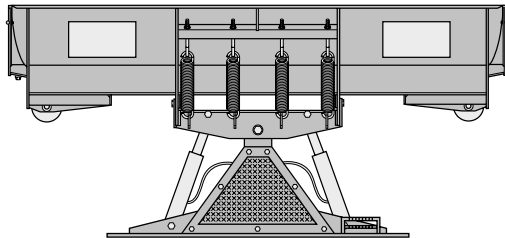
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Customer Service Department  
95 Airpark Boulevard  
Calumet, MI 49913  
(888) 680-8600  
(906) 482-5555  
(906) 482-5445 Fax

# TABLE OF CONTENTS

<b>01</b>	Snowplow Operation
<b>02</b>	Warning!
	<b>1999 Plow Assembly Instructions</b>
<b>03</b>	Unpacking & Inspection
<b>04</b>	Moldboard Assembly
<b>05</b>	A-frame Assembly
<b>06</b>	Testing The Snowplow
<b>07</b>	Mounting & Dismounting Instructions
	<b>1999 Maintenance &amp; Plow Specifications</b>
<b>08</b>	Regular Maintenance
<b>09</b>	Storing Your Snowplow
<b>10</b>	Plow Specifications
<b>11</b>	Notes
	<b>1999 Plow Diagrams</b>
<b>12</b>	Model 810SS Parts List
<b>14</b>	Model 810SS Assembly Schematic
<b>16</b>	Hydraulic Manifold Detail
	<b>1999 Hydraulic &amp; Electrical Diagrams</b>
<b>17</b>	Hydraulic Manifold Schematic
<b>18</b>	Plow Harness (Cylindrical Connector) with Diode Packs
<b>19</b>	Plow Harness (Cylindrical Connector)
<b>20</b>	Plow Harness Wire Schematic (Cylindrical Connector)
	<b>2000/01 Plow Assembly Instructions</b>
<b>21</b>	Unpacking & Inspection
<b>22</b>	Moldboard Assembly
<b>23</b>	A-frame Assembly
<b>24</b>	Plow Wire Harness
<b>25</b>	Testing The Snowplow
	<b>2000/01 Maintenance &amp; Plow Specifications</b>
<b>26</b>	Regular Maintenance
<b>27</b>	Storing Your Snowplow
<b>28</b>	Plow Specifications
<b>29</b>	Notes
	<b>2000/01 Plow Diagrams</b>
<b>30</b>	Model 810SS Parts List
<b>32</b>	Model 810SS Assembly Schematic
<b>34</b>	Hydraulic Manifold Detail
	<b>2000/01 Hydraulic &amp; Electrical Diagrams</b>
<b>35</b>	Hydraulic Manifold Schematic
<b>36</b>	Pistol Grip Control Wire Harness
<b>37</b>	Pistol Grip Control Harness Wire Schematic
<b>38</b>	Pistol Grip Control Extension Wire Harness
<b>39</b>	Pistol Grip Control Extension Harness Wire Schematic
<b>40</b>	Heavy-Duty Coil Wire Lead Harness
<b>41</b>	Heavy-Duty Coil Wire Lead Harness Wire Schematic
	<b>Troubleshooting</b>
<b>42</b>	Troubleshooting Guide
	<b>Warranties</b>
<b>44</b>	Limited Consumer Warranty
<b>45</b>	Commercial Warranty

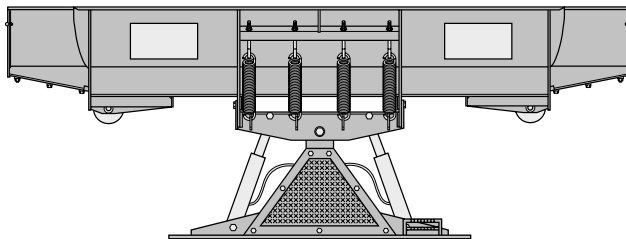
# SNOWPLOW OPERATION

Your Blizzard Skid Steer 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.



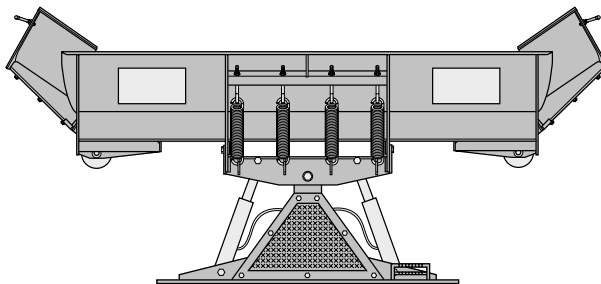
## Compact Position (8' Blade Width)

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



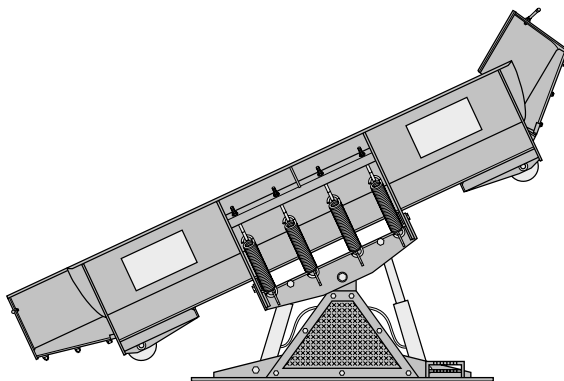
## WidePass™ Position (10' Blade Width)

- 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. Properly mount the snowplow attachment prior to moving the skid steer.
2. Always inform persons to stand clear of the plow and skid steer attachment plates when mounting. Failure to do so may result in serious injury or death.
3. Securely position all mounting levers prior to operating your skid steer blade.
4. Never use the plow attachment to carry people, as a man lift or work platform.
5. Always travel with the wings fully retracted.
6. Do not change the position of the blade while in transit.
7. Always lower blade when the skid steer is parked.
8. Never stand, work or reach under lift arms or lift cylinders without an approved lift arm stop installed. Failure to do so may result in serious injury or death.
9. Use caution when plowing with down pressure. The plow attachment can cause the front wheels on the skid steer to raise.

## WARNING

10. High pressure hydraulic fluid can puncture skin causing serious injury or death. In the event of a hydraulic leak, lower load or relieve hydraulic pressure before loosening fittings.

If injured, seek emergency medical help immediately.

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



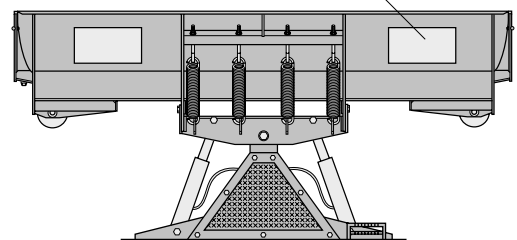
**READ  
OWNER'S  
MANUAL  
THOROUGHLY  
PRIOR TO  
OPERATING  
PLOW.**

 **BLIZZARD™  
CORPORATION**

Calumet, MI 49913

1096-2-00

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 - 1999

## 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.

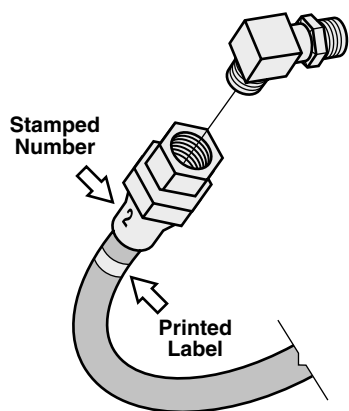
Once you have inspected all parts and removed all restraining and protective packaging materials, your snowplow is ready to be fully assembled.



### 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 plow model number and the serial number of the snowplow attachment are given together and can be found at the end panel. The first three digits and two letters of the number indicated is always the plow model (810SS) and the entire nine digit number (810SS-0001) make up the serial number. The packaging list is also attached to the end panel. Be sure to retain this list for your records.

## Moldboard Assembly



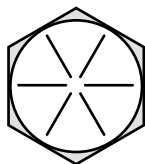
All of the hoses shipped with the snowplows contain either a stamped number on the sleeve or a printed label applied to the hose. All numbers, stamped or printed, correspond with the stamping of the ports on the manifold.

### \*\*\*\*NOTICE\*\*\*\*

If your Blizzard 810SS snowplow attachment was shipped with a manifold that does not contain the same port stamping as indicated on the Sequencing Valve & Hydraulic Hose Identification Guide (under the A-frame cover), connect the hoses from the main blade in the following sequence:

Hose #5 to Port #12	Hose #9 to Port #8
Hose #6 to Port #11	Hose #10 to Port #7
Hose #7 to Port #10	Hose #11 to Port #6
Hose #8 to Port #9	Hose #12 to Port #5

Hoses #1 & #2 connect to their own ports.



### 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.*

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 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 hex washer self-drilling 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 nut! Binding may prohibit the pivot beam from moving properly on the plow.

3. Hook each TRIP SPRING to the 3/4" diameter receiving holes located on the pivot beam and connect the opposite end of the spring to their respective EYE BOLTS. Install the four 1/2"-13 x 5" eye bolts through the TRIP SPRING MOUNTING ANGLE on the top rear of the blade. Secure each eye bolt by placing one 1/2" flat washer on the bolt and thread one 1/2"-13 hex nut. Tighten each hex 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 top lock nuts provided.

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

# A-frame Assembly

For your convenience, the MANIFOLD and ANGLE CYLINDERS have been secured to the A-FRAME at the factory; however, each contain several components you will need to install.

1. Begin the assembly by first removing the A-FRAME COVER. Remove each of the 3/8"-16 x 1" hex cap screws and washers from the cover to gain access to the hydraulic manifold.
2. Locate the HYDRAULIC ADAPTER KIT packaged with your snowplow. Each of the 10 HOSE PORTS on the manifold contain DUST CAPS. Replace each cap with the appropriate hydraulic adapter illustrated to the right or review the diagram on page 16. Reference the table to the right for proper torque specifications.

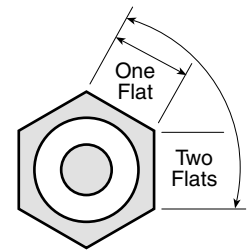
*Note: All ports are identified by a stamped number on the manifold. The numbers also identify the hydraulic functions which can be referenced on the label under the hydraulic pump and manifold cover (shown below).*



Male O.R.B. Connector Adapter  
(Port #1, #2, #6, #11)



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



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.*

The Sequencing Valve & Hydraulic Hose Identification Guide (left) is located under the A-frame cover.

## Sequencing Valve & Hydraulic Hose Identification Guide (Model 810 SS)

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

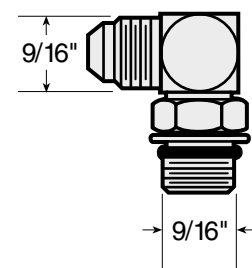
HYDRAULIC HOSES	
Port Identification	Function
1	Right Angle
2	Left Angle
5	Right Wing Retract
6	Right Wing Extend
7	Right Slide Box Retract
8	Right Slide Box Extend
9	Left Slide Box Extend
10	Left Slide Box Retract
11	Left Wing Extend
12	Left Wing Retract

NOTE: Energize the following solenoids for the functions:

S1	Right Slide Box Retract
S2	Right Slide Box Extend
S3	Angle Left
S4	Angle Right
S9	Left Slide Box Retract
S10	Left Slide Box Extend

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3. Once the adapters have been installed on the manifold, begin to install the HYDRAULIC HOSES. Route each hose grouping from the pivot beam to the access holes located on the sides of the A-frame. Connect the hydraulic hoses to their respective adapters on the manifold. *Note: The labeling on the hydraulic hoses should correspond with the stamped numbers on the manifold. If the manifold received with your plow does not match the stamping indicated on the label above, refer to the hose illustration on page 4. Reference the table to the right for proper torque specifications.*
4. Next, 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. *Note: The cylinder ports should be facing in toward the A-frame. Angle each adapter toward the cutting edge and tighten approximately 1-1/2 flats. Connect the 3/8" x 20" hydraulic hose, labeled*



90° Adjust. Elbow O.R.B. Adapter



The cylindrical connector allows the 810SS Power Plow to interface with the auxiliary electrical connection on most skid steer brands. This integrated wire harness eliminates the need for an additional snowplow control. All Power Plow functions can be operated using the existing controls on the skid steer.

#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. Complete the hose installation by running each hose through the access holes in the A-frame to their respective manifold ports.

- Once all of the hoses have been installed on the manifold, feed the HEAVY-DUTY CYLINDRICAL CONNECTOR from the WIRE HARNESS (on the manifold) through the top access hole in the A-frame located on the driver's side. The cylindrical connector, along with both pre-installed 3/4" PRESSURE & TANK HYDRAULIC HOSES, will be attached to the skid steer when the snowplow is ready to be mounted.
- Complete the A-frame assembly by attaching the A-frame cover. Align the holes in the cover with those on the A-frame and replace the 3/8"-16 x 1" hex cap screws and washers.

Congratulations! You have just completed building the finest snowplow skid steer attachment available! However, the snowplow's functions still need to be tested. Follow the instructions below.

## Testing The Snowplow

- To test all of the functions on the Power Plow, your snowplow needs to be properly attached to the skid steer. Follow the mounting procedure on page 7.
- Once the skid steer plate and the UNIVERSAL MOUNT PLATE on the A-frame have been locked together (using the locking levers on the skid steer), complete the auxiliary electrical and hydraulic connections with the skid steer turned off. Locate both of the MALE & FEMALE FLAT-FACE COUPLINGS provided with your snowplow. *Note: Due to the various make and model skid steers available, the couplings may not always interface with the auxiliary hydraulic connections. Consult your skid steer's Operation Manual for the appropriate couplings needed.* Attach the male coupling to the 3/4" x 78" hydraulic hose that is attached to the bottom pressure port ("P") on the manifold. Attach the female coupling to the remaining hose that is connected to the top tank port ("T"). Complete the hydraulic installation by making the connections at the skid steer.

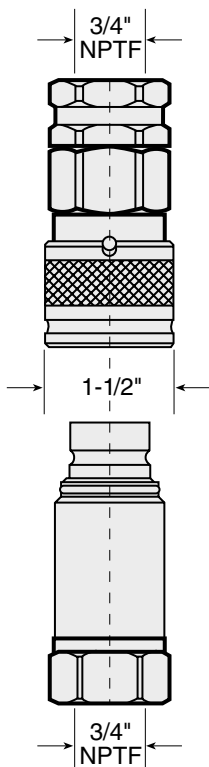


**WARNING: Always use caution when connecting high-pressure hydraulic fittings. Hydraulic fluid under pressure can puncture skin causing serious injury or death. In the event of a hydraulic leak, relieve hydraulic pressure before loosening fittings. If injured, seek emergency medical help immediately.**

Attach the cylindrical connector to the auxiliary electrical connection on the skid steer. Twist the connector to lock it in place.

- Start the skid steer and begin to initiate the Power Plow's blade functions. *Note: Depending on the skid steer model, it may be necessary to turn on the skid steer's auxiliary hydraulic switch prior to operating the plow.* Upon using the integrated controls, you may notice a plow function is slow or delayed. The hydraulic fluid is filling the cylinders and replacing air in the system. If necessary, monitor the fluid level in your skid steer. Also, look for any leaks around the manifold, hydraulic hoses and all cylinders.

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




**Female and Male Flat-Face Couplings**



# 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).



## SKID STEER MOUNTING & DISMOUNTING INSTRUCTIONS

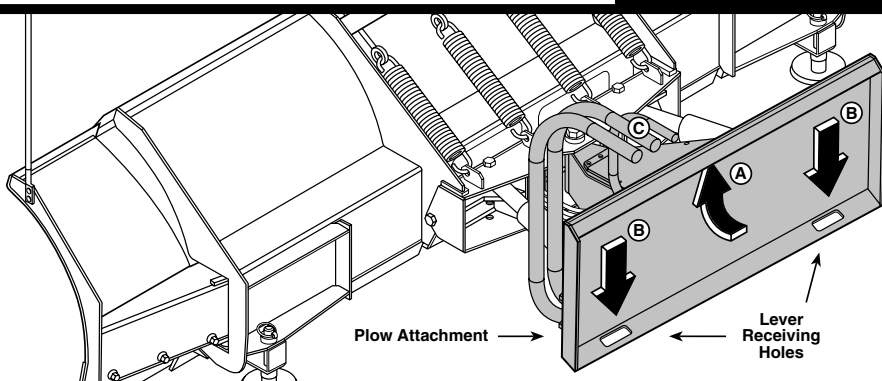
### MOUNTING

- 1.) Position the skid steer close to the plow attachment and align the mounting points on the skid steer plate and plow attachment plate.
- 2.) Tilt the skid steer plate forward and position the top edge of the plate under the receiving pocket on the top edge of the plow attachment plate. **CAUTION: Keep fingers away from skid steer mounting points.** Slightly raise the arms on the skid steer and tilt the skid steer plate toward the cab. The attachment should now be flush with the skid steer mount.
- 3.) Engage both locking levers on the skid steer by rotating each handle 90° into a horizontal position. The attachment is now properly fastened to the skid steer.
- 4.) Proceed to attach both 3/4" diameter hydraulic hoses from the manifold to the auxiliary hydraulic connectors located on the skid steer. Note: Depending on the skid steer model, it may be necessary to initiate an auxiliary hydraulic switch on the skid steer prior to operating the plow.
- 5.) Complete the mounting procedure by attaching the electrical connection on the wire harness to the auxiliary electrical connection on the skid steer.

### DISMOUNTING

- 1.) Lower the plow on a flat, level surface and turn the engine off.
- 2.) Disconnect the electrical connection at the auxiliary power location.
- 3.) Disconnect both 3/4" diameter hydraulic hoses from the auxiliary hydraulic connectors.
- 4.) Disconnect the plow attachment by rotating both of the locking levers 90° until they are in the vertical position.
- 5.) Start engine and slowly tilt the skid steer plate forward until the top edge of the plate clears the plow attachment plate.
- 6.) Back skid steer away slowly – The disconnect procedure is now complete.

**⚠ WARNING: Read and understand all warning labels prior to operating your skid steer blade. Failure to follow this instruction may result in serious injury or death.**

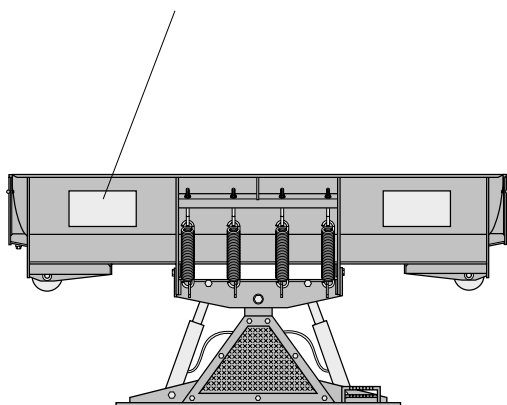


**A** Skid steer plate attaches under the top lip of the plow attachment.

**B** With the plow attachment flush to the skid steer plate, engage both locking levers on the skid steer by rotating each handle 90° into a horizontal position. The levers will slide through the receiving holes in the plow attachment plate. The plate is now securely mounted to the skid steer.

**C** Connect both hydraulic hoses & the electrical harness to the skid steer.

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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.





# 1999 PLOW SPECIFICATIONS

## Moldboard

Length .....	8'
Thickness .....	12 Gauge
Height .....	29"
Reinforcement .....	4 Ribs @ 1/4"
Cutting Edge.....	3/8" x 6"
Finish.....	Powder Coat - White

## Wings

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

## Trip Mechanism

Trip Spring Type .....	(4) 3/8" Hooked Extension
Trip Spring Adjustment.....	1/2" x 5" Turned Eye Bolt

## A-frame

Material .....	1/4" & 5/16" Mild Steel
Cover .....	1/4" Mild Steel w/Non-Skid Texture
Finish .....	Powder Coat - Black

## Manifold

Construction .....	Clear Anodized Aluminum
Ports.....	10
Cartridge Valves .....	4
Sequence Valves .....	4
Relief Valves.....	5
Weight .....	28 lb.
Mount.....	Bolted to A-frame
Relief Style Logic Element.....	2 gpm

## Cylinders

<i>Angle Cylinders</i> .....	2
Stroke .....	10"
Ram Diameter.....	1-3/4"
Bore Diameter.....	2"
 <i>Slide Box Cylinders</i> .....	2
Stroke .....	12"
Ram Diameter.....	1"
Bore Diameter.....	1-1/2"
 <i>Wing Cylinders</i> .....	2
Stroke .....	2"
Ram Diameter.....	1-1/8"
Bore Diameter.....	2"

## Miscellaneous

Plow Weight .....	Approx. 890 lb.
Compact Plow Width .....	8'
WidePass Plow Width .....	10'
BucketBlade Plow Width .....	9'-3"
Mount Mechanism .....	Universal Attachment Plate
Adjustable Plow Shoes.....	2
Control Station.....	Integrated Controls
Optional Control .....	Pistol Grip w/3 Switches
Anti-Trip Mechanism .....	One Piece Trip-Lock Bar



## 1999 MODEL 810SS PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1	52022	1	Moldboard
2	51019	1	Driver's Side Wing
3	50023	1	Driver's Side Slide Box
4	51018	1	Passenger's Side Wing
5	50022	1	Passenger's Side Slide Box
6	51050	1	Wing Snow Shield - Passenger's Side
7	51049	1	Wing Snow Shield - Driver's Side
8	61031	6	12-14 x 3/4" Hex Washer Self-Drilling Screw
9	51015	1	Passenger's Side Wing Cutting Edge
10	61097	1	Moldboard Cutting Edge
11	51016	1	Driver's Side Wing Cutting Edge
12	61023	9	1/2"-13 x 5-1/2" Flat Head Socket Cap Screw
13	61022	2	1/2"-13 x 4-1/2" Flat Head Socket Cap Screw
14	61021	2	1/2"-13 x 3-1/2" Flat Head Socket Cap Screw
15	61025	17	1/2"-13 Grade 8 YZ Hex Nut
16	61019	2	1/2"-13 x 1" Grade 8 YZ Hex Head Cap Screw
17	61020	2	1/2"-13 Grade C Z Top Lock Nut
<b>18A</b>	<b>61049</b>	<b>2</b>	<b>Plow Guide Assembly: (1) - 18 &amp; 19, (2) - 20 &amp; 21</b>
18	61113	2	Plow Guide Tip, Black
19	61050	2	27-1/4" Plow Guide, Red
20	61051	4	5/16"-18 x 1" Grade 5 Z Hex Head Cap Screw
21	61052	4	5/16"-18 Z Nylon Insert Lock Nut
22	51009	2	3/4" x 9" Wing/Slide Box Pivot Pin
23	50013	2	3/4" x 3-3/8" Hydraulic Cylinder Rod End Pin - Wing Angle
24	60033	2	Hydraulic Cylinder - Wing Angle
25	61028	12	1/4" x 1-1/4" Spring Pin
26	50012	2	3/4" x 4" Hydraulic Cylinder Base End Pin - Wing Angle
27	50011	2	5/8" x 4" Hydraulic Cylinder Rod End Pin - Slide Box Extend/Retract
28	60031	1	Hydraulic Cylinder - Slide Box Extend/Retract, Passenger's Side
29	60060	1	Hydraulic Cylinder - Slide Box Extend/Retract, Driver's Side
30	52012	2	5/8" x 7-5/16" Hydraulic Cylinder Base End Pin - Slide Box Extend/Retract
31	61030	4	1/8 Gauge x 2-5/8" Z Hair Pin Cotter
32	60008	2	7/16"-20 x 7/16"-20 90° Adjustable Elbow O.R.B. Adapter
33	60018	1	1/4" x 32" Hydraulic Hose (#9) - Passenger's Side Slide Box Extend
34	60019	1	1/4" x 36" Hydraulic Hose (#10) - Passenger's Side Slide Box Retract
35	60004	2	7/16"-20 x 7/16"-20 Male O.R.B. Connector Adapter
36	60020	1	3/8" x 74" Hydraulic Hose (#11) - Passenger's Side Wing Extend
37	60006	2	9/16"-18 90° Swivel Elbow Adapter
38	60007	6	9/16"-18 x 9/16"-18 Male Connector
39	60021	1	1/4" x 86" Hydraulic Hose (#12) - Passenger's Side Wing Retract
40	60009	2	7/16"-20 90° Swivel Elbow Adapter
41	60003	8	7/16"-20 x 9/16"-18 Male O.R.B. Connector Adapter
42	60014	1	1/4" x 81" Hydraulic Hose (#5) - Driver's Side Wing Retract
43	60015	1	3/8" x 72" Hydraulic Hose (#6) - Driver's Side Wing Extend
44	60016	1	1/4" x 40" Hydraulic Hose (#7) - Driver's Side Slide Box Retract
45	60017	1	1/4" x 30" Hydraulic Hose (#8) - Driver's Side Slide Box Extend
<b>46A</b>	<b>61130</b>	<b>2</b>	<b>Slide Box Access Plate Assembly: (1) - 46 &amp; 47</b>
46	61100	2	9-3/4" Trim-Lok
47	52014	2	Slide Box Access Plate
48	61026	4	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High Strength Washer
49	61024	4	1/2"-13 x 5" Z Turned Eye Bolt
50	61099	4	3/8" x 2-5/16" O.D. x 14-1/2" Acrylic Metokote Extension Spring
<b>51A</b>	<b>61098</b>	<b>2</b>	<b>Plow Shoe Assembly: (1) - 51, 52, 54, (18) - 53</b>
51	61104	2	Standard Plow Shoe (7-3/4" Shaft)
52	61102	2	1-5/8" O.D., 1-1/8" I.D. x 1-1/2" YZ Spacer
53	61101	32	1", 1-3/4" O.D., 1-1/16" I.D. YZ Flat Washer
54	61103	2	1/2" x 1-3/4" Linch Pin
55	41023	1	Pivot Beam
56	61003	2	3/4"-10 x 3" Grade 8 YZ Hex Cap Screw
57	61006	6	3/4"-10 Grade C Z Top Lock Nut
58	61004	4	3/4"-10 x 4-1/2" Grade 8 YZ Hex Cap Screw
59	61131	1	1"-8 x 9" Grade 8 YZ Hex Head Cap Screw
60	61008	1	1"-8 Grade C Z Top Lock Nut
61	60029	2	Hydraulic Cylinder - Plow Angle
62	60005	2	9/16"-18 x 9/16"-18 90° Adjustable Elbow O.R.B. Adapter
63	60010	1	3/8" x 20" Hydraulic Hose (#1) - Driver's Side Plow Angle
64	60011	1	3/8" x 24" Hydraulic Hose (#2) - Passenger's Side Plow Angle
<b>65A</b>	<b>70000</b>	<b>1</b>	<b>A-frame Assembly: (1) - 65 &amp; 66A</b>
65	70001	1	A-frame Weldment
<b>66A</b>	<b>70019</b>	<b>1</b>	<b>A-frame Cover Assembly: (1) - 66, 67 &amp; 94</b>
66	70027	1	A-frame Cover
67	70021	1	Non-skid, Rubber Grip
68	61033	11	3/8"-16 x 1" Grade 8 YZ Hex Cap Screw
69	61016	11	3/8", 13/16" O.D., 13/32" I.D. YZ SAE Mil-Carb, High-Strength Washer
70	61222	4	3/8" YZ High Alloy Split Lock Washer

*NOTE: The reference numbers listed identify parts shown in the illustrations on pages 14-16 & 18. These numbers are specific to these illustrations only and do not correspond with other diagrams in this manual. Always review the part number given for proper component identification.*

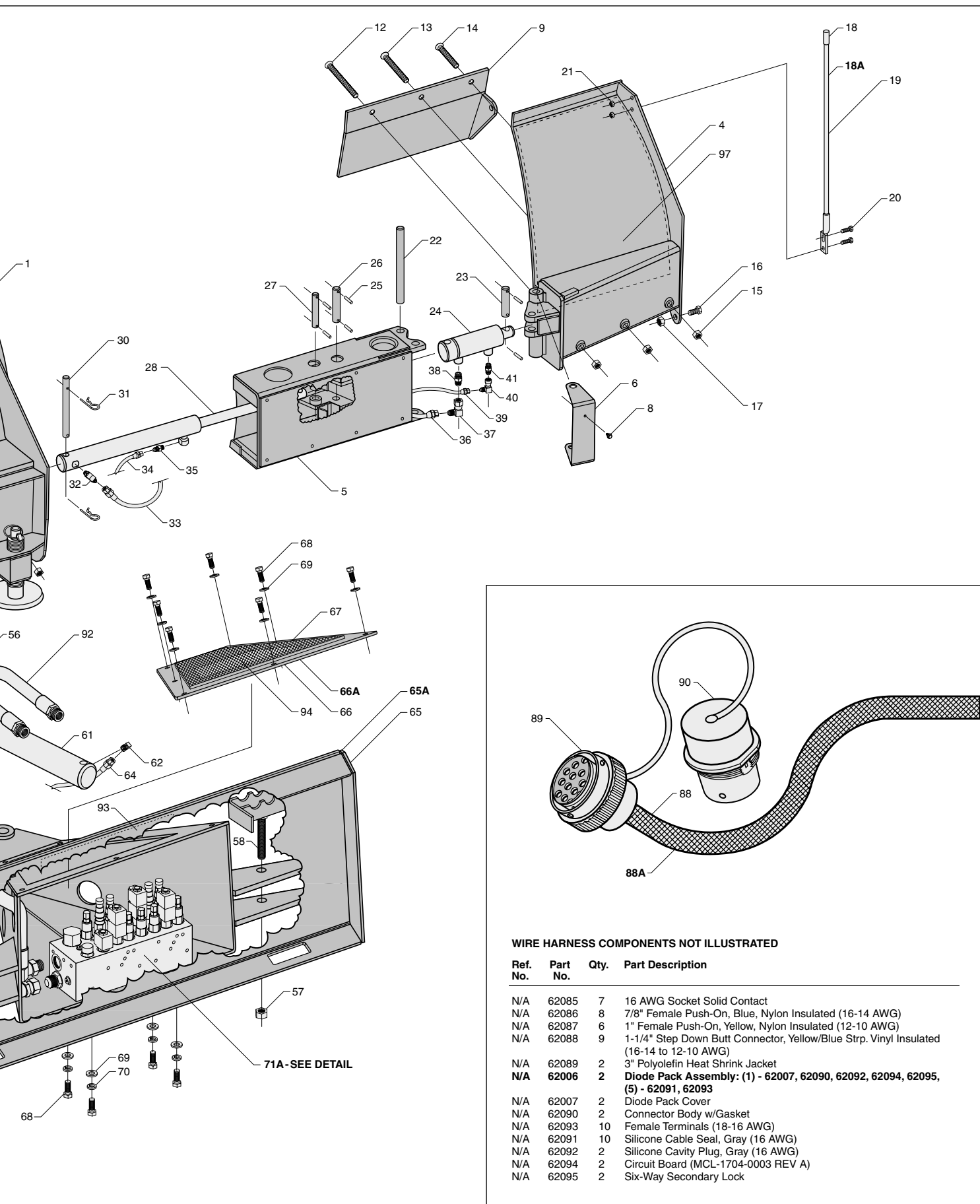
## 1999 MODEL 810SS PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
<b>71A</b>	<b>60106</b>	<b>1</b>	<b>Hydraulic Manifold Assembly: (1) - 71, 73-76, 84, 86, 87, (2) - 77, 82, (3) - 72, 78, 81, (4) - 38, 80, 83, (5) - 85, (6) - 41, (7) - 79</b>
71	60109	1	Clear Anodized Aluminum Manifold Block
72	60049	3	-4 SAE Hollow Hex Plug
73	60113	1	5/16"-18 Orifice .020" DIA.
74	60089	1	1-1/16"-12 x 1-1/16"-12 Male O.R.B. Connector Adapter
75	60112	1	5/16"-18 Orifice .031" DIA.
76	60117	1	7/16"-20 Plug O.R.B.
77	60050	2	-6 SAE Hollow Hex Plug
78	60051	3	Three Position, Four-Way N.C. Solenoid Cartridge (DSO85C1)
79	60108	7	12VDC, 25W Type P Double Spade Coil
80	60052	4	1/2"-20 YZ Hex Jam Nut
81	60053	3	Pressure Relief Valve, 2000 psi (RDO83C30/200)
82	60056	2	Pressure Relief Valve, 3000 psi (RDO83C30/300)
83	60080	4	Sequence Valve, 1000 psi (SCCA-LAN)
84	60058	1	Two Position, Two-Way N.C. Solenoid Cartridge (DSO81CR)
85	60054	5	3/8"-24 YZ Crown Nut
86	60110	1	Pressure Compensation Flow Control (FR101F200)
87	60111	1	Relief Style Logic Element (LE3A-16-F-0-100)
<b>88A</b>	<b>62080</b>	<b>1</b>	<b>810SS Wire Harness (Cylindrical Connector w/Diode Packs) Assembly: (1) - 88-90, (2) - 62006, 62089, (6) - 62087, (7) - 62085, (8) - 62086, (9) - 62088</b>
88	62079	1	810SS Wire Harness (Cylindrical Connector w/Diode Packs)
89	62078	1	Heavy-Duty Cylindrical Connector (Deutsch)
90	62099	1	Heavy-Duty Cylindrical Connector Weather Cap (Deutsch)
N/A	62085	7	16 AWG Socket Solid Contact
N/A	62086	8	7/8" Female Push-On, Blue, Nylon Insulated (16-14 AWG)
N/A	62087	6	1" Female Push-On, Yellow, Nylon Insulated (12-10 AWG)
N/A	62088	9	1-1/4" Step Down Butt Connector, Yellow/Blue Strp. Vinyl Insulated (16-14 to 12-10 AWG)
N/A	62089	2	3" Polyolefin Heat Shrink Jacket
<b>N/A</b>	<b>62006</b>	<b>2</b>	<b>Diode Pack Assembly: (1) - 62007, 62090, 62092, 62094, 62095, (5) - 62091, 62093</b>
N/A	62007	2	Diode Pack Cover
N/A	62090	2	Connector Body w/Gasket
N/A	62093	10	Female Terminals (18-16 AWG)
N/A	62091	10	Silicone Cable Seal, Gray (16 AWG)
N/A	62092	2	Silicone Cavity Plug, Gray (16 AWG)
N/A	62094	2	Circuit Board (MCL-1704-0003 REV A)
N/A	62095	2	Six-Way Secondary Lock
91	60086	1	3/4" x 78" Hydraulic Hose - 1-1/16"-12 Female Swivel/ 3/4"-14 Male Pipe Str.-Pressure Port "P"
92	60087	1	3/4" x 78" Hydraulic Hose - 1-1/16"-12 Male O.R.B.90° Swivel/3/4"-14 Male Pipe Str.-Tank Port "T"
93	61085	1	2-1/8" x 13-1/8" Blizzard Power Plow Decal
94	61172	1	810SS Sequencing Valve & Hose Identification Guide Label
95	61082	1	Moldboard Decal
96	61083	1	Wing Decal - Driver's Side
97	61084	1	Wing Decal - Passenger's Side
98	61173	1	Serial Number (Sequentially Numbered)
99	61171	1	Skid Steer Mounting & Dismounting Instructions Label
100	61170	1	WARNING! Label
N/A	61210	1	810SS Hardware Kit - Kit Includes: (2) - 56, 57, (4) - 8, 15, 48, 49, (7) - 68,
N/A	60088	1	810SS Hydraulic Adapter Kit - Kit Includes: (2) - 62, (4) - 38, (6) - 41

*NOTE: The reference numbers listed identify parts shown in the illustrations on pages 14-16 & 18. These numbers are specific to these illustrations only and do not correspond with other diagrams in this manual. Always review the part number given for proper component identification.*







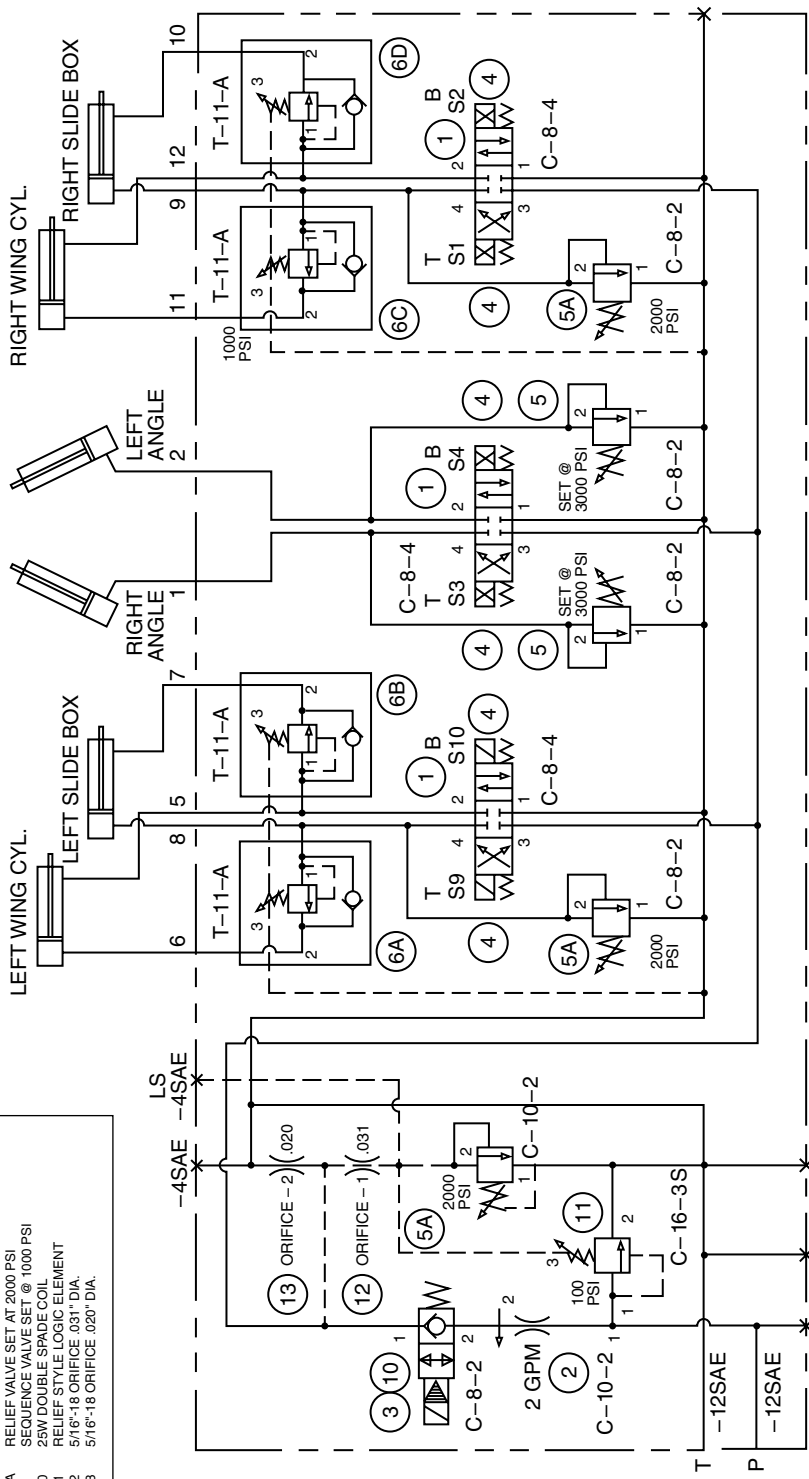
**WIRE HARNESS COMPONENTS NOT ILLUSTRATED**

Ref. No.	Part No.	Qty.	Part Description
N/A	62085	7	16 AWG Socket Solid Contact
N/A	62086	8	7/8" Female Push-On, Blue, Nylon Insulated (16-14 AWG)
N/A	62087	6	1" Female Push-On, Yellow, Nylon Insulated (12-10 AWG)
N/A	62088	9	1-1/4" Step Down Butt Connector, Yellow/Blue Strp. Vinyl Insulated (16-14 to 12-10 AWG)
N/A	62089	2	3" Polyolefin Heat Shrink Jacket
N/A	62006	2	<b>Diode Pack Assembly: (1) - 62007, 62090, 62092, 62094, 62095, (5) - 62091, 62093</b>
N/A	62007	2	Diode Pack Cover
N/A	62090	2	Connector Body w/Gasket
N/A	62093	10	Female Terminals (18-16 AWG)
N/A	62091	10	Silicone Cable Seal, Gray (16 AWG)
N/A	62092	2	Silicone Cavity Plug, Gray (16 AWG)
N/A	62094	2	Circuit Board (MCL-1704-0003 REV A)
N/A	62095	2	Six-Way Secondary Lock



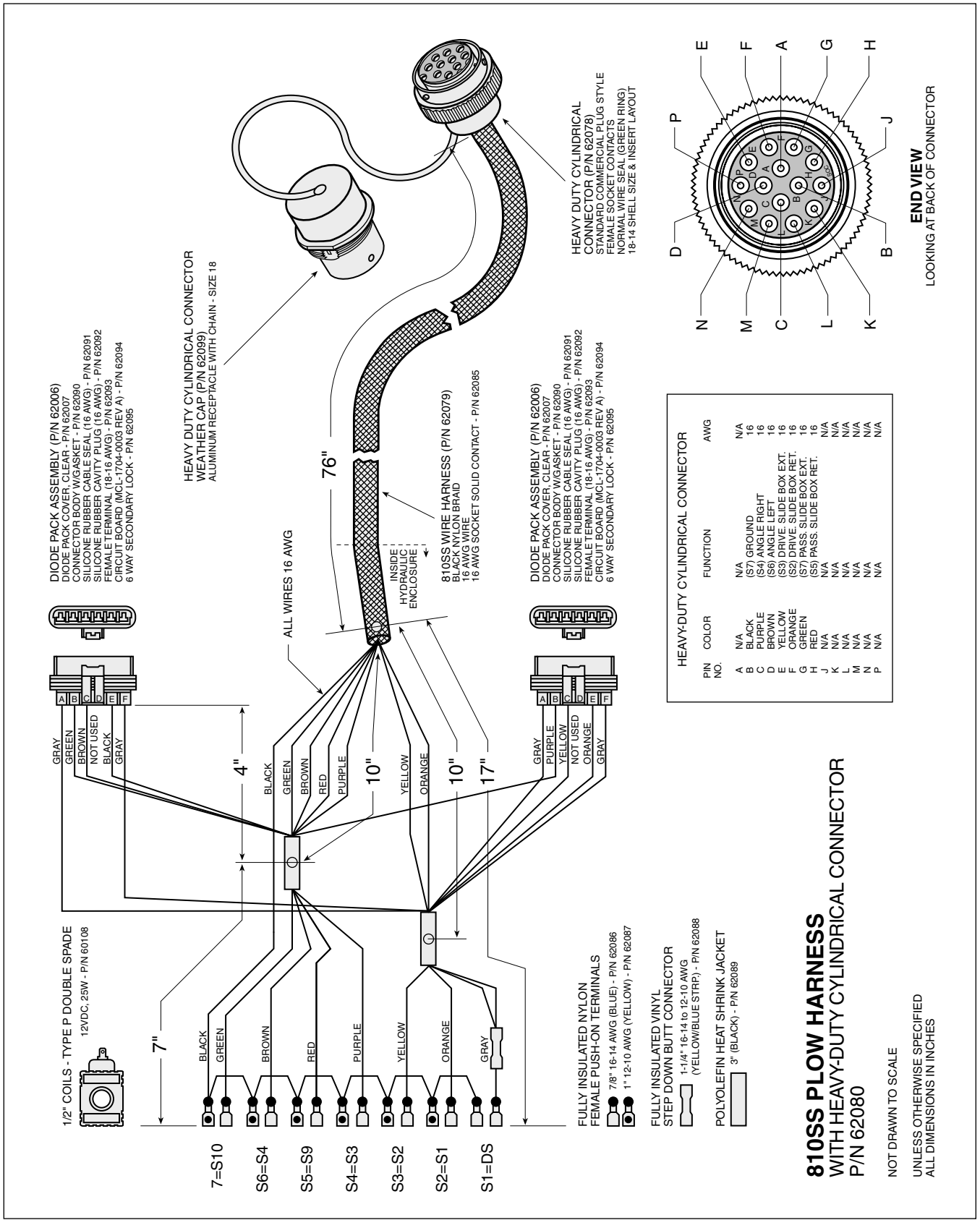
810SS MANIFOLD COMPONENTS	
ITEM NO.	COMPONENT DESCRIPTION
1	3 POSITION, 4WAY N.C. SOLENOID CARTRIDGE
2	PRESSURE COMPENSATION FLOW CONTROL
3	2 POSITION, 2WAY C.C. SOLENOID CARTRIDGE
4	2 POSITION, 2WAY C.C. SOLENOID CARTRIDGE
5	2 POSITION, 2WAY C.C. SOLENOID CARTRIDGE
6	RELIEF VALVE SET AT 3000 PSI
7	RELIEF VALVE SET AT 2000 PSI
8	SEQUENCE VALVE SET AT 1000 PSI
9	2 POSITION, 2WAY C.C. SOLENOID CARTRIDGE
10	RELIEF VALVE SET AT 1000 PSI
11	RELIEF VALVE SET AT 3000 PSI
12	5/16"-18 ORIFICE .031" DIA.
13	5/16"-18 ORIFICE .020" DIA.

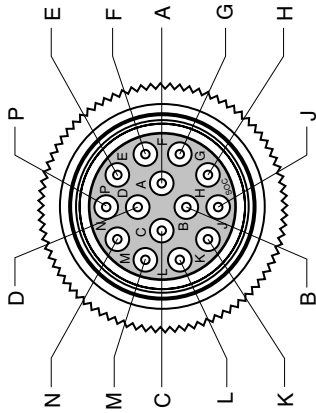
- 8 - LEFT SLIDE BOX 1ST EXT. (SEQUENCE VALVE 6A)
- 9 - RIGHT SLIDE BOX 1ST EXT. (SEQUENCE VALVE E 6C)
- 6 - LEFT WING 2ND EXT. (SEQUENCE VALVE 6B)
- 11 - RIGHT WING 2ND EXT. (SEQUENCE VALV E 6C)
- 5 - LEFT WING 1ST RET. (SEQUENCE VALVE 6B)
- 12 - RIGHT WING 1ST RET.
- 7 - LEFT SLIDE BOX 2ND RET. (SEQUENCE VALVE 6B)
- 10 - RIGHT SLIDE BOX 2ND RET. (SEQUENCE VALVE 6D)



ALL WORK PORTS = # 6SAE  
2 GPM

### 1999 MODEL 810SS HYDRAULIC MANIFOLD SCHEMATIC

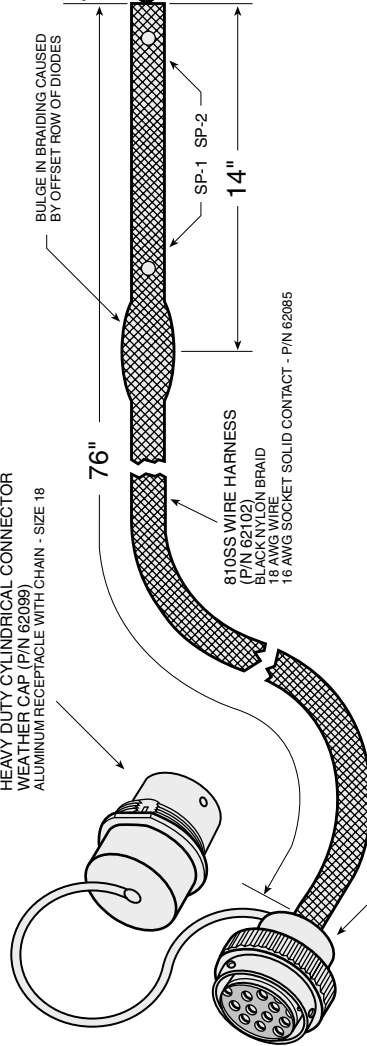




HEAVY-DUTY CYLINDRICAL CONNECTOR		
PIN NO.	COLOR	FUNCTION
A	N/A	N/A
B	BLACK	(GROUND) GROUND
C	PURPLE	(S4) ANGLE RIGHT
D	BROWN	(S6) ANGLE LEFT
E	YELLOW	(S3) DRIVE SLIDE BOX EXT.
F	ORANGE	(S2) DRIVE SLIDE BOX RET.
G	GREEN	(S7) PASS. SLIDE BOX EXT.
H	RED	(S5) PASS. SLIDE BOX RET.
I	N/A	N/A
J	N/A	N/A
K	N/A	N/A
L	N/A	N/A
M	N/A	N/A
N	N/A	N/A
O	N/A	N/A
P	N/A	N/A

**END VIEW**  
LOOKING AT BACK OF CONNECTOR

HEAVY DUTY CYLINDRICAL CONNECTOR  
WEATHER CAP (P/N 62099)  
ALUMINUM RECEPTACLE WITH CHAIN - SIZE 18

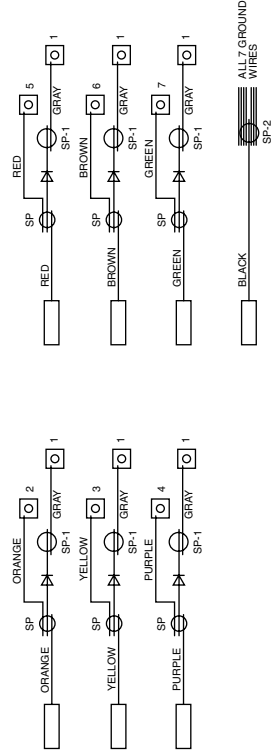
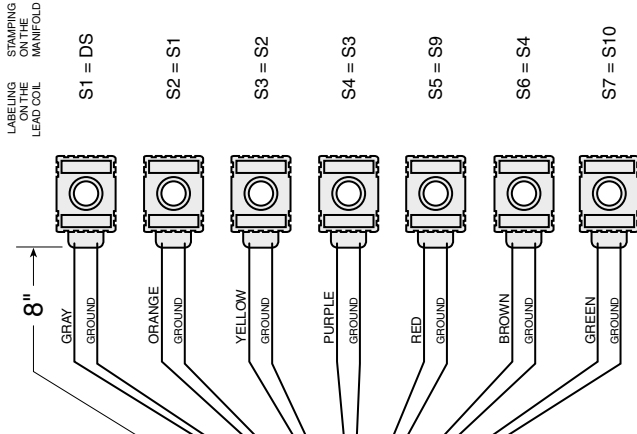


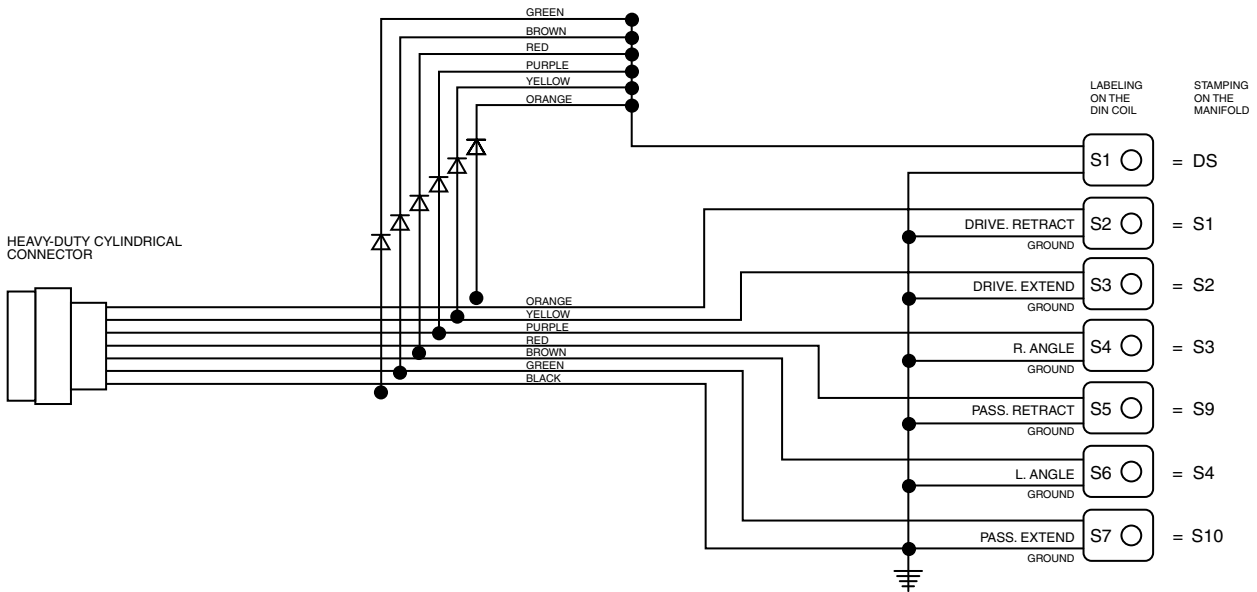
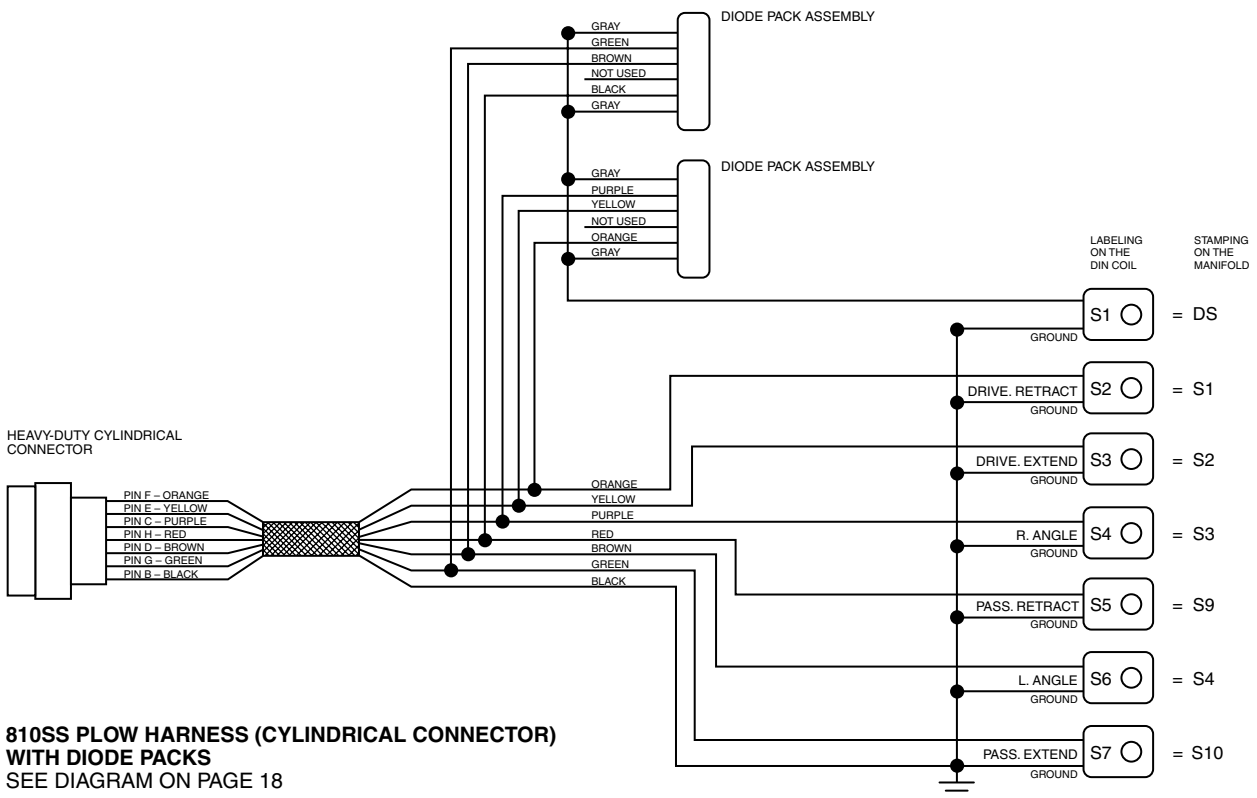
HEAVY DUTY CYLINDRICAL CONNECTOR (P/N 62078)  
STANDARD COMMERCIAL PLUG STYLE  
FEMALE SOCKET CONTACTS  
NORMAL WIRE SEAL (GREEN RING)  
18-14 SHELL SIZE & INSERT LAYOUT

**810SS PLOW HARNESS**  
WITH HEAVY-DUTY CYLINDRICAL CONNECTOR  
P/N 62101

NOT DRAWN TO SCALE  
UNLESS OTHERWISE SPECIFIED  
ALL DIMENSIONS IN INCHES

1/2" COILS - TYPE W DOUBLE LEAD  
12VDC, 25W - P/N 60037





# ASSEMBLY INSTRUCTIONS - 2000/01

## 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.

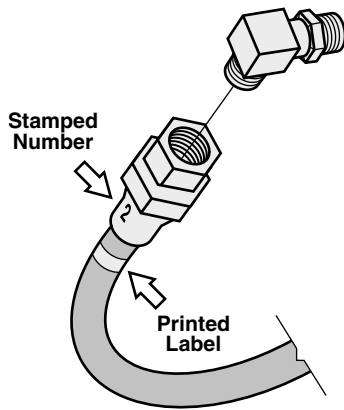
Once you have inspected all parts and removed all restraining and protective packaging materials, your snowplow is ready to be fully assembled.



### 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 plow model number and the serial number of the snowplow attachment are given together and can be found at the end panel. The first three digits and two letters of the number indicated is always the plow model (810SS) and the entire nine digit number (810SS-0001) make up the serial number. The packaging list is also attached to the end panel. Be sure to retain this list for your records.

## Moldboard Assembly



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.

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.

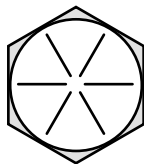


**CAUTION:** Do not over tighten hex head nuts! Binding may prohibit the pivot beam from moving properly on the plow.

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.

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



### 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

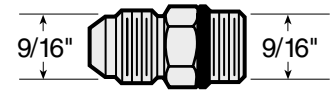
*Note: Use 25% less torque when lubricated. Check and re-tighten all fasteners after the first three hours of use. Periodically review all fasteners after the initial inspection.*



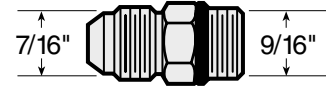
# A-frame Assembly

For your convenience, the MANIFOLD and ANGLE CYLINDERS have been secured to the A-FRAME at the factory; however, each contain several components you will need to install.

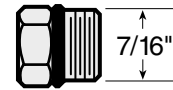
1. Begin the assembly by first removing the A-FRAME COVER. Remove each of the 3/8"-16 x 1" hex cap screws and washers from the cover to gain access to the hydraulic manifold.
2. Each of the 10 HOSE PORTS on the manifold contain HYDRAULIC ADAPTERS (see illustrations to the right) that were factory installed. These adapters receive the HYDRAULIC HOSES. Route each hose grouping from the pivot beam to the access holes located on the sides of the A-frame. Connect the hydraulic hoses to their respective adapters on the manifold. Reference the table to the right for proper torque specifications. *Note: The labeling on the hydraulic hoses correspond with the stamped numbers on the manifold (see illustration on page 22). The numbers also identify the hydraulic functions which can be referenced on the label under the hydraulic pump and manifold cover (shown below).*



Male O.R.B. Connector Adapter  
(Port #1, #2, #6, #11)

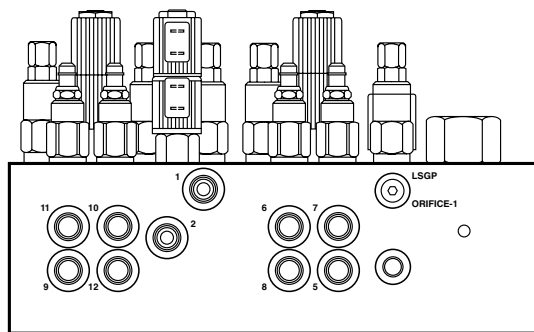
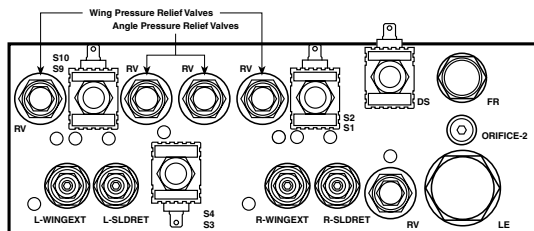


Male O.R.B. Connector Adapter  
(Port #5, #7, #8, #9, #10, #12)



Plug O.R.B.

## Sequencing Valve & Hydraulic Hose Identification Guide (Model 810 SS)



### 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
5	Right Wing Retract
6	Right Wing Extend
7	Right Slide Box Retract
8	Right Slide Box Extend
9	Left Slide Box Extend
10	Left Slide Box Retract
11	Left Wing Extend
12	Left Wing Retract

NOTE: Energize the following solenoids for the functions:

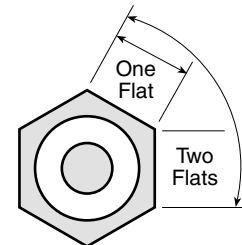
S1	Right Slide Box Retract
S2	Right Slide Box Extend
S3	Angle Left
S4	Angle Right
S9	Left Slide Box Retract
S10	Left Slide Box Extend



Calumet, MI 49913

1097-2-00

The Sequencing Valve & Hydraulic Hose Identification Guide (left) is located under the A-frame cover.



### 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

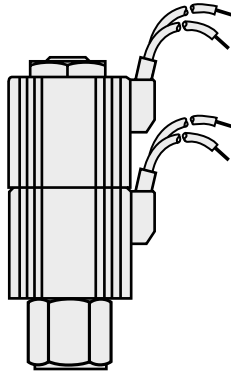
Ex.) After threading a 7/16-20 O.R.B. adapter finger tight, torque the fitting approximately 1-1/2 flats (faces) for proper installation.

3. The angle cylinder hoses have been attached to the cylinders; however, they need to be connected to the ports on the manifold. Proceed to connect the 3/8" x 29" driver's side hose to Port #1 and the 3/8" x 25" passenger's side hose to Port #2. Be careful not to overtighten the hose connections. Once you have completed the installation of the hydraulic hoses, begin to install the wire harness.

### Coil Positioning

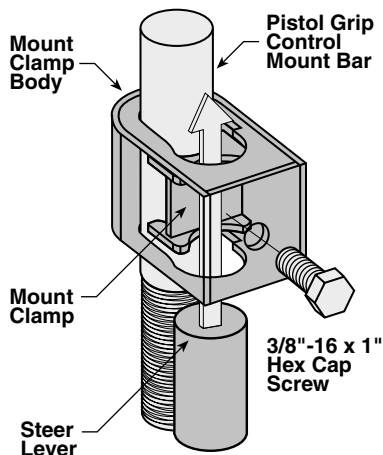
Coil Labeling	Manifold Stamping
S1	DS
S2	S1
S3	S2
S4	S3
S5	S9
S6	S4
S7	S10

S1 & S2, S3 & S4, and S9 & S10 are all paired coils. Review the label under the A-frame cover for proper locations. S1, S3 and S9 are always the top coils indicated on the manifold stamping.



## Electrical Assembly - Plow Wire Harness

1. Begin the installation by connecting the 12VDC RED WIRE LEAD COILS on the COIL HARNESS to the SOLENOID CARTRIDGES on the manifold. Install each coil to its respective cartridge valve by matching the number on the coil to the stamped number on the manifold. *Note: Review the chart to the left for proper orientation of the coils.* To install a coil, simply remove the 1/2"-20 YZ HEX JAM NUT on each cartridge, position the coil over the cartridge (in its proper stacked order) and secure with the jam nut. The wire leads from each coil should face toward the middle of the manifold block to ensure the least amount of tension on the wires from the harness.
2. Continue the harness installation by connecting the MALE ELECTRIC CONNECTOR found on the COIL WIRE LEAD HARNESS to the FEMALE ELECTRIC CONNECTOR on the EXTENSION WIRE HARNESS. *Note: The end of the extension wire harness that DOES NOT contain both ground and power wires, connects to the coil wire lead harness.* Once both connectors are locked together, feed the opposite end of the extension wire harness through the top access hole (same as 3/4" TANK HYDRAULIC HOSE) in the A-frame located on the driver's side.
3. Locate the PISTOL GRIP CONTROL MOUNTING CLAMP that was packaged with your snowplow. *Note: The mounting clamp will only work with skid steer controls that have straight, fixed operation levers.* Remove any grip that may be on the steer lever. Next, remove the small CLAMP from inside the larger CLAMP BODY. Run the male electric connector on the PISTOL GRIP CONTROL WIRE HARNESS through the clamp body and reposition the clamp. *Note: The clamp should be toward the square edge of the mounting body and the harness toward the rounded edge.* Position the PISTOL GRIP CONTROL in the cut-out on the clamp body and slide the clamp body over the operation lever on the skid steer. Secure the mounting clamp to the lever by tightening the 3/8"-16 x 1" hex cap screw on the clamp.
4. Lock together the male electric connector on the pistol grip control harness to the female electric connector on the extension wire harness. Complete the electrical assembly by attaching the BLACK, GROUND wire from the extension wire harness to the cab of the skid steer. The PINK/BLACK, POWER wire connects to a switched (on and off with ignition) power source with a minimum of 12 volts.
5. Replace the A-frame cover by aligning the holes in the cover with those on the A-frame and secure with 3/8"-16 x 1" hex cap screws and washers.



### Pistol Grip Control Mount Clamp Assembly

The pistol grip control mount clamp assembly consists of three parts – the mount clamp body, mount clamp, and a 3/8"-16 x 1" hex cap screw. The mount clamp will work with skid steer controls that have straight, fixed operation levers. See the instructions to the right for proper installation.

Congratulations! You have just completed building the finest snowplow skid steer attachment available! However, the snowplow's functions still need to be tested. Follow the instructions on page 25.

# Testing The Snowplow

1. To test all of the functions on the Power Plow, your snowplow needs to be properly attached to the skid steer. Follow the mounting procedure on page 7.
2. Once the skid steer plate and the UNIVERSAL MOUNT PLATE on the A-frame have been locked together (using the locking levers on the skid steer), complete the hydraulic connections with the skid steer turned off.  
*Note: Due to the various make and model skid steer available, hydraulic couplings for the auxiliary hydraulic connections are not provided. Consult your skid steer's Operation Manual for the appropriate couplings needed.* Once you have identified the appropriate hydraulic couplings for your skid steer, make the connections to both of the 3/4" x 78" hydraulic hoses provided. The bottom hydraulic hose is attached to the pressure port ("P") on the manifold and the top hydraulic hose is attached to the tank port ("T"). Complete the hydraulic installation by making the appropriate connections at the skid steer.



**WARNING: Always use caution when connecting high-pressure hydraulic fittings. Hydraulic fluid under pressure can puncture skin causing serious injury or death. In the event of a hydraulic leak, relieve hydraulic pressure before loosening fittings. If injured, seek emergency medical help immediately.**

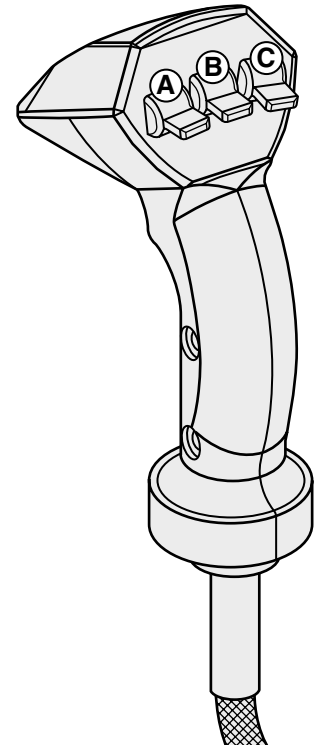
3. Start the skid steer and begin to initiate the Power Plow's blade functions.  
*Note: Depending on the skid steer model, it may be necessary to turn on the skid steer's auxiliary hydraulic switch prior to operating the plow.* Push the left switch UP to LEFT ANGLE the snowplow and DOWN to RIGHT ANGLE. The center switch operates the DRIVER'S SIDE WING. Push the switch UP to EXTEND the wing and DOWN to RETRACT the wing. The right switch operates the PASSENGER'S SIDE WING. Again, pushing up will extend the wing and down will retract the wing. Upon initiating the switches on the pistol grip control, you may notice a plow function is slow or delayed. The hydraulic fluid is filling the cylinders and replacing air in the system. If necessary, monitor the hydraulic fluid level in your skid steer. Also, look for any leaks around the manifold, hydraulic hoses and all cylinders.

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

## 810SS Pistol Grip Control Functions

There are three switches that operate all of the 810SS Power Plow blade functions:

- (A) ANGLE: UP-Left, DOWN-Right
- (B) DRIVE. BOX: UP-Extend, DOWN-Retract
- (C) PASS. BOX: UP-Extend, DOWN-Retract







# 2000/01 PLOW SPECIFICATIONS

## Moldboard

Length .....	8'
Thickness .....	12 Gauge
Height .....	29"
Reinforcement .....	4 Ribs @ 1/4"
Cutting Edge .....	3/8" 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 .....	1/4" & 5/16" Mild Steel
Cover .....	1/4" Mild Steel w/Non-Skid Texture
Finish.....	Powder Coat - Black

## Manifold

Construction .....	Clear Anodized Aluminum
Ports.....	10
Cartridge Valves.....	4
Sequence Valves .....	4
Relief Valves.....	5
Weight .....	28 lb.
Mount.....	Bolted to A-frame
Relief Style Logic Element.....	2 gpm

## Cylinders

<i>Angle Cylinders</i> .....	2
Stroke .....	10"
Ram Diameter.....	1-3/4"
Bore Diameter.....	2"
 <i>Slide Box Cylinders</i> .....	2
Stroke .....	12"
Ram Diameter.....	1"
Bore Diameter.....	1-1/2"
 <i>Wing Cylinders</i> .....	2
Stroke .....	2"
Ram Diameter.....	1-1/8"
Bore Diameter.....	2"

## Miscellaneous

Plow Weight .....	Approx. 890 lb.
Compact Plow Width .....	8'
WidePass Plow Width .....	10'
BucketBlade Plow Width .....	9'-3"
Mount Mechanism .....	Universal Attachment Plate
Adjustable Plow Shoes.....	2
Control Station.....	Pistol Grip w/3 Switches
Anti-Trip Mechanism .....	One Piece Trip-Lock Bar



## 2000/01 MODEL 810SS 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	51050	1	Wing Snow Shield - Passenger's Side
7	51049	1	Wing Snow Shield - Driver's Side
8	61213	2	#11 Aluminum Buttonhead Rivet
9	51047	1	Wing Cutting Edge Weldment (T1) - Passenger's Side
10	52051	1	Moldboard Cutting Edge (1080)
11	51048	1	Wing Cutting Edge Weldment (T1) - Driver's Side
12	61023	9	1/2"-13 x 5-1/2" Flat Head Socket Cap Screw
13	61022	2	1/2"-13 x 4-1/2" Flat Head Socket Cap Screw
14	61021	2	1/2"-13 x 3-1/2" Flat Head Socket Cap Screw
15	61025	13	1/2"-13 Grade 8 YZ Hex Nut
<b>16A</b>	<b>61049</b>	<b>2</b>	<b>Plow Guide Assembly: (1) - 16 &amp; 17, (2) - 18 &amp; 19</b>
16	61113	2	Plow Guide Tip, Black
17	61050	2	27-1/4" Plow Guide, Red
18	61051	4	5/16"-18 x 1" Grade 5 Z Hex Head Cap Screw
19	61052	4	5/16"-18 Z Nylon Insert Lock Nut
20	51009	2	3/4" x 9" Wing/Slide Box Pivot Pin
21	50013	2	3/4" x 3-3/8" Hydraulic Cylinder Rod End Pin - Wing Angle
22	60090	2	Hydraulic Cylinder - Wing Angle
23	61028	12	1/4" x 1-1/4" Spring Pin
24	50012	2	3/4" x 4" Hydraulic Cylinder Base End Pin - Wing Angle
25	50011	2	5/8" x 4" Hydraulic Cylinder Rod End Pin - Slide Box Extend/Retract
26	60031	1	Hydraulic Cylinder - Slide Box Extend/Retract, Passenger's Side
27	61198	2	5/8" DIA. x 1-1/8" Rubber Cap, Black
28	52012	2	5/8" x 7-5/16" Hydraulic Cylinder Base End Pin - Slide Box Extend/Retract
29	61030	4	1/8" DIA. x 2-5/8" Z Hair Pin Cotter
30	60060	1	Hydraulic Cylinder - Slide Box Extend/Retract, Driver's Side
31	60008	2	7/16"-20 x 7/16"-20 90° Adjustable Elbow O.R.B. Adapter
32	60097	1	1/4" x 34" Hydraulic Hose (#9) - Slide Box Extend, Passenger's Side
33	60098	1	1/4" x 42" Hydraulic Hose (#10) - Slide Box Retract, Passenger's Side
34	60004	2	7/16"-20 x 7/16"-20 Male O.R.B. Connector Adapter
35	60099	1	3/8" x 84" Hydraulic Hose (#11) - Wing Extend, Passenger's Side
36	60006	2	9/16"-18 90° Swivel Elbow Adapter
37	60007	6	9/16"-18 x 9/16"-18 Male O.R.B. Connector Adapter
38	60100	1	1/4" x 88" Hydraulic Hose - Str./45° (#12) - Wing Retract, Passenger's Side
39	60009	2	7/16"-20 90° Swivel Elbow Adapter
40	60003	8	7/16"-20 x 9/16"-18 Male O.R.B. Connector Adapter
41	60094	1	1/4" x 84" Hydraulic Hose (#5) - Wing Retract, Driver's Side
42	60095	1	3/8" x 84" Hydraulic Hose (#6) - Wing Extend, Driver's Side
43	60016	1	1/4" x 40" Hydraulic Hose (#7) - Slide Box Retract, Driver's Side
44	60096	1	1/4" x 34" Hydraulic Hose - Str./90° (#8) - Slide Box Extend, Driver's Side
<b>45A</b>	<b>61130</b>	<b>2</b>	<b>Slide Box Access Plate Assembly: (1) - 45 &amp; 46</b>
45	61100	2	9-3/4" Trim-Lok
46	52014	2	Slide Box Access Plate
47	61037	4	1/4"-20 x 3/4" Grade 8 YZ Hex Cap Screw
48	61215	4	1/4"-20 U-Nut
49	61099	4	3/8" x 2-5/16" O.D. x 14-1/2" Extension Spring
50	61187	4	5/8"-11 x 6-11/16" Grade 8 Z Clear Chromate Spade Bolt
51	61064	4	5/8", 1-5/16" O.D., 21/32" I.D. YZ SAE Mil Carb High-Strength Washer
52	61188	4	5/8"-11 Nylon Insert Lock Nut - Type NE
<b>53A</b>	<b>61220</b>	<b>2</b>	<b>Heavy-Duty Plow Shoe Assembly: (1) - 53, 54, 56, (18) - 55</b>
53	61221	2	Cast Iron Heavy-Duty Plow Shoe (8-3/8" Shaft)
54	61102	2	1-5/8" O.D., 1-1/8" I.D. x 1-1/2" YZ Spacer
55	61101	36	1", 1-3/4" O.D., 1-1/16" I.D. Z Flat Washer
56	61103	2	1/2" x 1-3/4" Linch Pin
57	41030	1	Pivot Beam Weldment
58	61003	2	3/4"-10 x 3" Grade 8 YZ Hex Cap Screw
59	61006	6	3/4"-10 Grade C Z Top Lock Nut
60	61004	4	3/4"-10 x 4-1/2" Grade 8 YZ Hex Cap Screw
61	61131	1	1"-8 x 9" Grade 8 YZ Hex Head Cap Screw
62	61008	1	1"-8 Grade C Z Top Lock Nut
63	61217	2	1-1/2" I.D., 2-1/8" O.D. Rubber Grommet, 60 Durometer
64	60029	2	Hydraulic Cylinder - Plow Angle
65	60005	2	9/16"-18 x 9/16"-18 90° Adjustable Elbow O.R.B. Adapter
66	60084	1	3/8" x 29" Hydraulic Hose (#1) - Plow Angle, Driver's Side
67	60085	1	3/8" x 25" Hydraulic Hose (#2) - Plow Angle, Passenger's Side
<b>68A</b>	<b>70014</b>	<b>1</b>	<b>A-frame Assembly: (1) - 68 &amp; 69A</b>
68	70013	1	A-frame Weldment
<b>69A</b>	<b>70008</b>	<b>1</b>	<b>A-frame Cover Assembly: (1) - 69, 70 &amp; 99</b>
69	70002	1	A-frame Cover
70	70021	1	Non-skid, Rubber Grip

*Note: The reference numbers listed identify parts shown in the illustrations on pages 19, 32-34, 36, 38 & 40. 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.*



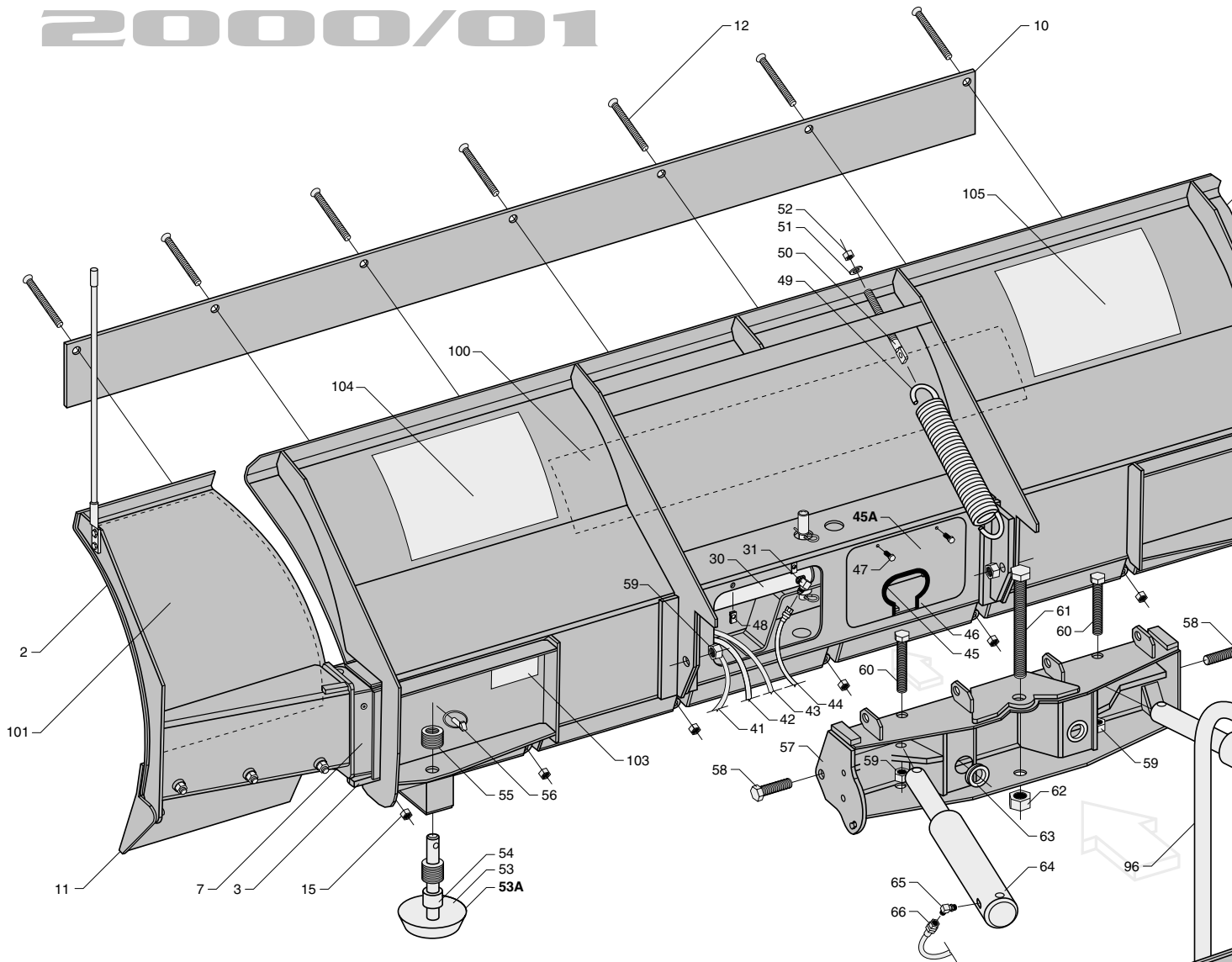
**2000/01 MODEL 810SS PARTS LIST**

Ref. No.	Part No.	Qty.	Part Description
71	61033	12	3/8"-16 x 1" Grade 8 YZ Hex Cap Screw
72	61016	11	3/8", 13/16" O.D., 13/32" I.D. YZ SAE Mil-Carb, High-Strength Washer
73	61222	4	3/8" YZ High Alloy Split Lock Washer
<b>74A</b>	<b>60114</b>	<b>1</b>	<b>Hydraulic Manifold Assembly: (1) - 74, 76-79, 87, 89, 90, (2) - 80, 85, (3) - 75, 81, 84, (4) - 37, 83, 86, (5) - 88, (6) - 40, (7) - 82</b>
74	60109	1	Clear Anodized Aluminum Manifold Block
75	60049	3	-4 SAE Hollow Hex Plug
76	60113	1	5/16"-18 Orifice .020" DIA.
77	60089	1	1-1/16"-12 x 1-1/16"-12 Male O.R.B. Connector Adapter
78	60112	1	5/16"-18 Orifice .031" DIA.
79	60117	1	7/16"-20 Plug O.R.B.
80	60050	2	-6 SAE Hollow Hex Plug
81	60051	3	Three Position, Four-Way N.C. Solenoid Cartridge (DSO85C1)
82	60037	7	12VDC, 25W Type W Double Lead Coil
83	60052	4	1/2"-20 YZ Hex Jam Nut
84	60053	3	Pressure Relief Valve, 2000 psi @ 2 gpm (RDO83C30-200/2)
85	60056	2	Pressure Relief Valve, 3000 psi @ 2 gpm (RDO83C30-300/2)
86	60080	4	Sequence Valve, 1000 psi (SCCA-LAN)
87	60058	1	Two Position, Two-Way N.C. Solenoid Cartridge (DSO81CR)
88	60054	5	3/8"-24 YZ Crown Nut
89	60115	1	Pressure Compensation Flow Control (FR101F300XC161)
90	60116	1	Relief Style Logic Element (LE3A-16-F-0-200)
<b>91A</b>	<b>62081</b>	<b>1</b>	<b>810SS Wire Harness (Pistol Grip Control) Assembly: (1) - 92A, 62083 &amp; 62084</b>
<b>92A</b>	<b>62082</b>	<b>1</b>	<b>810SS Pistol Grip Control Wire Harness Assembly: (1) - 92, 93, 62045, (10) - 62096, 62097</b>
92	62104	1	Pistol Grip Control Wire Harness
93	62103	1	Pistol Grip Control w/3 Switches
N/A	62045	2	Plastic Electric Connector - Male
N/A	62097	18	Male Terminal (18-16 AWG)
N/A	62096	40	Silicone Cable Seal, Orange (18 AWG)
<b>94A</b>	<b>70015</b>	<b>1</b>	<b>Pistol Grip Control Mount Clamp Assembly: (1) - 71, 94 &amp; 95</b>
94	70016	1	Pistol Grip Control Mount Clamp Body Weldment
95	70017	1	Pistol Grip Control Mount Clamp Weldment
<b>N/A</b>	<b>62083</b>	<b>1</b>	<b>810SS Extension Wire Harness - Standard 16' Assembly: (1) - 62105, (2) - 62046, 62100 (18) - 62093, (20) - 62096</b>
N/A	62105	1	810SS Extension Wire Harness - Standard 16'
<b>N/A</b>	<b>62098</b>	<b>1</b>	<b>810SS Extension Wire Harness - Optional 24' Assembly: (1) - 62106, (2) - 62046, 62100 (18) - 62093, (20) - 62096</b>
N/A	62106	1	810SS Extension Wire Harness - Optional 24'
N/A	62046	2	Plastic Electric Connector - Female
N/A	62093	18	Female Terminal (18-16 AWG)
N/A	62100	2	#10 Ring Coupler (22-18 AWG)
<b>N/A</b>	<b>62084</b>	<b>1</b>	<b>810SS Heavy-Duty Coil Wire Lead Harness Assembly: (1) - 62107, 62045, (7) - 82, (8) - 62097, (10) - 62096</b>
N/A	62107	1	810SS Heavy-Duty Coil Wire Lead Wire Harness
<b>N/A</b>	<b>62101</b>	<b>1</b>	<b>810SS Wire Harness (Cylindrical Connector) Assembly: (1) - 62102, 62078, 62099, (7) - 82, 62085,</b>
N/A	62102	1	810SS Wire Harness (Cylindrical Connector)
N/A	62078	1	Heavy-Duty Cylindrical Connector (Deutsch)
N/A	62099	1	Heavy-Duty Cylindrical Connector Weather Cap (Deutsch)
N/A	62085	7	16 AWG Socket Solid Contact
96	60086	1	3/4" x 78" Hydraulic Hose - 1-1/16"-12 Female Swivel/ 3/4"-14 Male Pipe Str. - Pressure Port "P"
97	60087	1	3/4" x 78" Hydraulic Hose - 1-1/16"-12 Male O.R.B. 90° Swivel/3/4"-14 Male Pipe Str. - Tank Port "T"
98	61085	1	2-1/8" x 13-1/8" Blizzard Power Plow Decal
99	61172	1	810SS Sequencing Valve & Hose Identification Guide Label
100	61082	1	Moldboard Decal
101	61083	1	Wing Decal - Driver's Side
102	61084	1	Wing Decal - Passenger's Side
103	61173	1	Serial Number (Sequentially Numbered)
104	61171	1	Skid Steer Mounting & Dismounting Instructions Label
105	61170	1	WARNING! Label
N/A	61277	1	810SS Hardware Kit - Kit Includes: (2) - 58, 59, (4) - 47, 50-52
N/A	60088	1	810SS Hydraulic Adapter Kit - Kit Includes: (2) - 65, (4) - 37, (6) - 40

*Note: The reference numbers listed identify parts shown in the illustrations on pages 19, 32-34, 36, 38 & 40. 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.*



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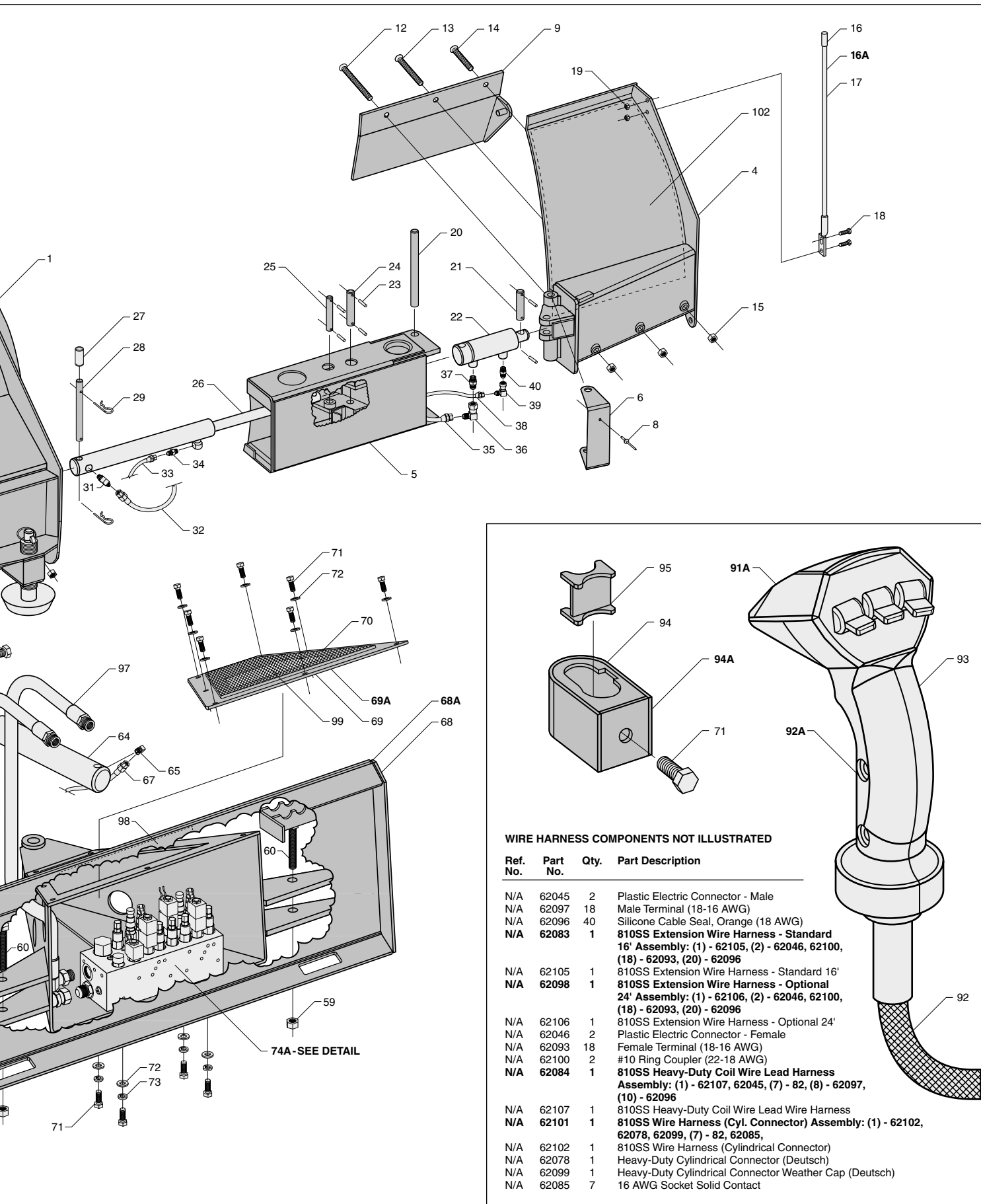


### 2000/01 Model 810SS Assembly Schematic

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.

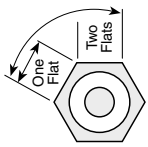


The Blizzard Power Plow is protected by U.S. patents 5,638,618 and 5,899,007. Other patents pending.



**WIRE HARNESS COMPONENTS NOT ILLUSTRATED**

Ref. No.	Part No.	Qty.	Part Description
N/A	62045	2	Plastic Electric Connector - Male
N/A	62097	18	Male Terminal (18-16 AWG)
N/A	62096	40	Silicone Cable Seal, Orange (18 AWG)
N/A	62083	1	<b>810SS Extension Wire Harness - Standard 16' Assembly: (1) - 62105, (2) - 62046, 62100, (18) - 62093, (20) - 62096</b>
N/A	62105	1	810SS Extension Wire Harness - Standard 16'
N/A	62098	1	<b>810SS Extension Wire Harness - Optional 24' Assembly: (1) - 62106, (2) - 62046, 62100, (18) - 62093, (20) - 62096</b>
N/A	62106	1	810SS Extension Wire Harness - Optional 24'
N/A	62046	2	Plastic Electric Connector - Female
N/A	62093	18	Female Terminal (18-16 AWG)
N/A	62100	2	#10 Ring Coupler (22-18 AWG)
N/A	62084	1	<b>810SS Heavy-Duty Coil Wire Lead Harness Assembly: (1) - 62107, 62045, (7) - 82, (8) - 62097, (10) - 62096</b>
N/A	62107	1	810SS Heavy-Duty Coil Wire Lead Wire Harness
N/A	62101	1	<b>810SS Wire Harness (Cyl. Connector) Assembly: (1) - 62102, 62078, 62099, (7) - 82, 62085,</b>
N/A	62102	1	810SS Wire Harness (Cylindrical Connector)
N/A	62078	1	Heavy-Duty Cylindrical Connector (Deutsch)
N/A	62099	1	Heavy-Duty Cylindrical Connector Weather Cap (Deutsch)
N/A	62085	7	16 AWG Socket Solid Contact



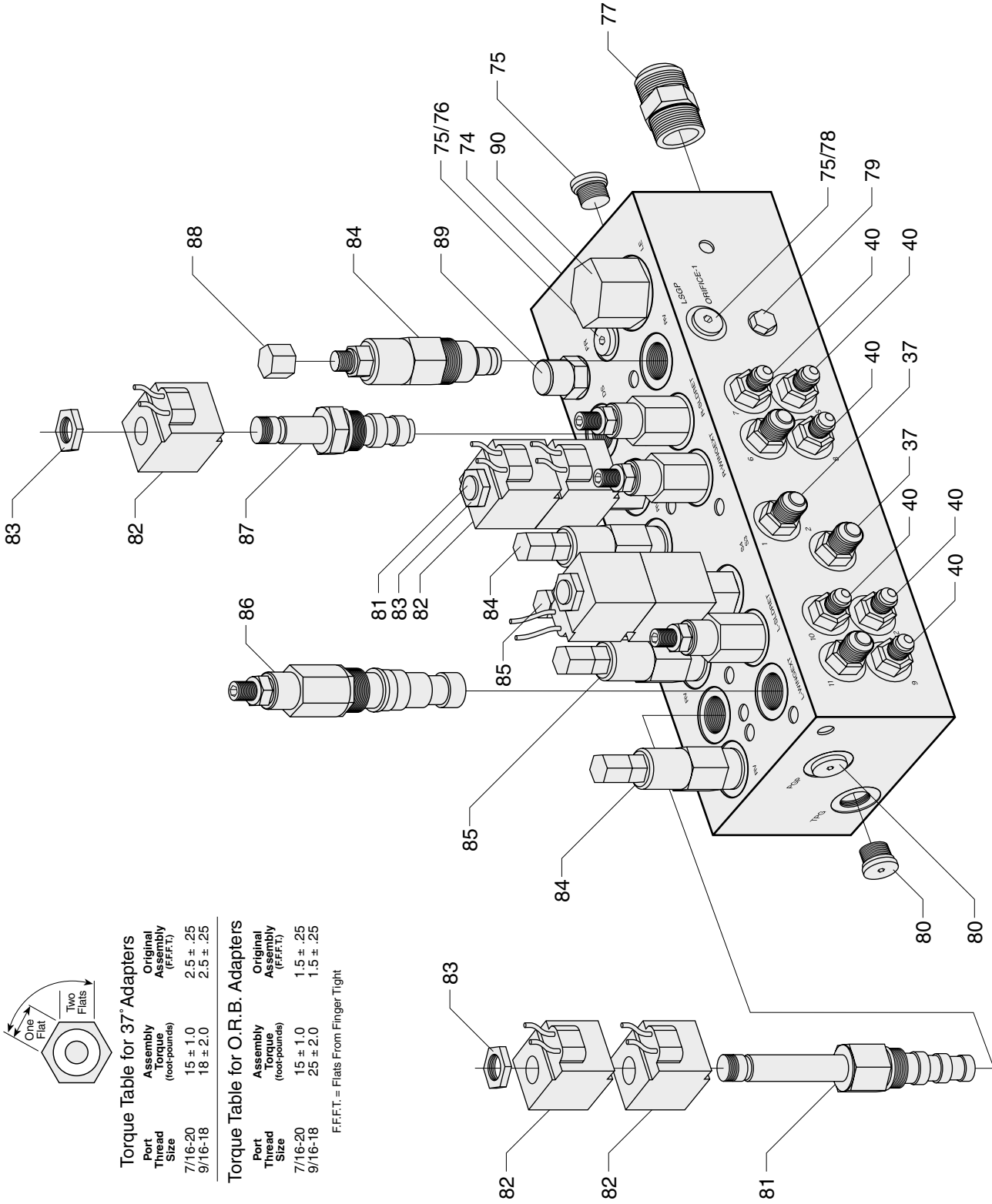
**Torque Table for 37° Adapters**

Port Thread Size	Assembly Torque (foot-pounds)	Original Assembly Torque (FFF.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**

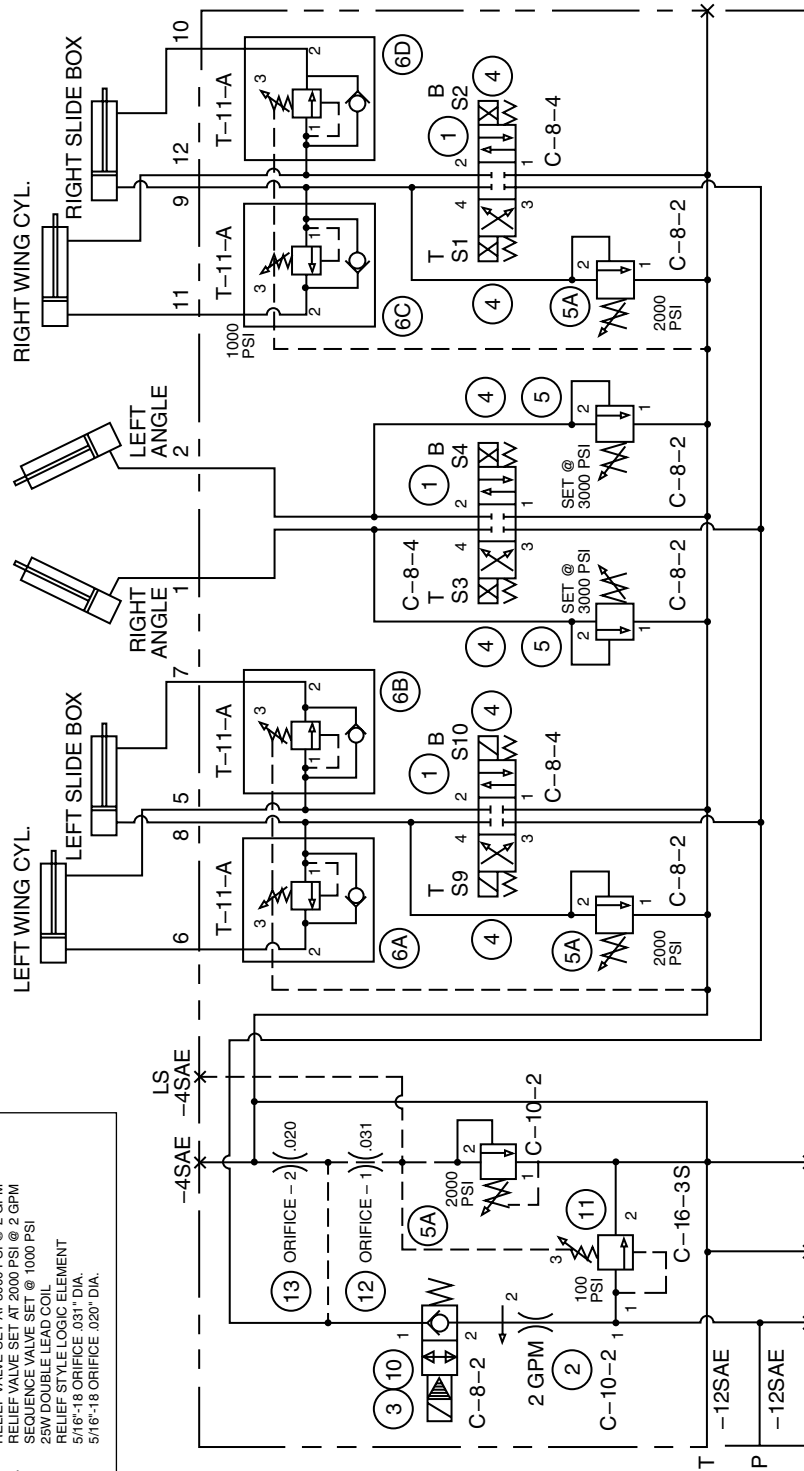
Port Thread Size	Assembly Torque (foot-pounds)	Original Assembly Torque (FFF.T.)
7/16-20	15 ± 1.0	1.5 ± .25
9/16-18	25 ± 2.0	1.5 ± .25

FFF.T. = Flats From Finger Tight



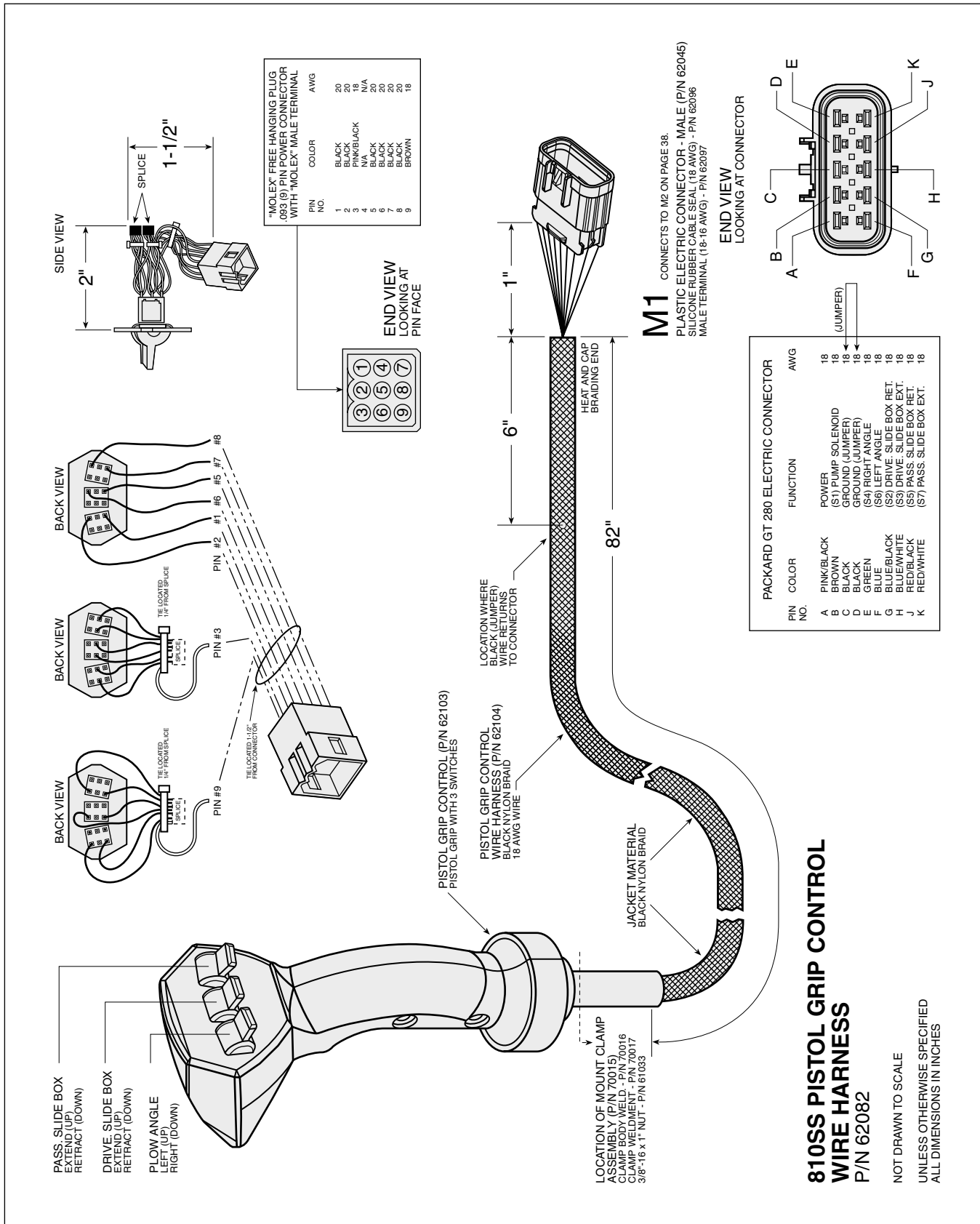
810SS MANIFOLD COMPONENTS	
ITEM NO.	COMPONENT DESCRIPTION
1	3 POSITION, 4-WAY N.C. SOLENOID CARTRIDGE
2	PRESSURE COMPENSATION FLOW CONTROL
3	2 POSITION, 2-WAY N.C. SOLENOID CARTRIDGE
4	5/16" DOUBLE LEAD COIL
5	RELIEF VALVE SET AT 3000 PSI @ 2 GPM
5A	RELIEF VALVE SET AT 2000 PSI @ 2 GPM
6	SEQUENCE VALVE SET @ 1000 PSI
10	5/16" DOUBLE LEAD COIL
11	RELIEF STYLE LOGIC ELEMENT
12	5/16"-18 ORIFICE .031" DIA.
13	5/16"-18 ORIFICE .020" DIA.

- 8 - LEFT SLIDE BOX 1ST EXT.
- 6 - LEFT WING 2ND EXT. (SEQUENCE VALVE 6A)
- 5 - LEFT WING 1ST RET.
- 7 - LEFT SLIDE BOX 2ND RET. (SEQUENCE VALVE 6B)
- 9 - RIGHT SLIDE BOX 1ST EXT.
- 11 - RIGHT WING 2ND EXT. (SEQUENCE VALVE 6C)
- 12 - RIGHT WING 1ST RET.
- 10 - RIGHT SLIDE BOX 2ND RET. (SEQUENCE VALVE 6D)

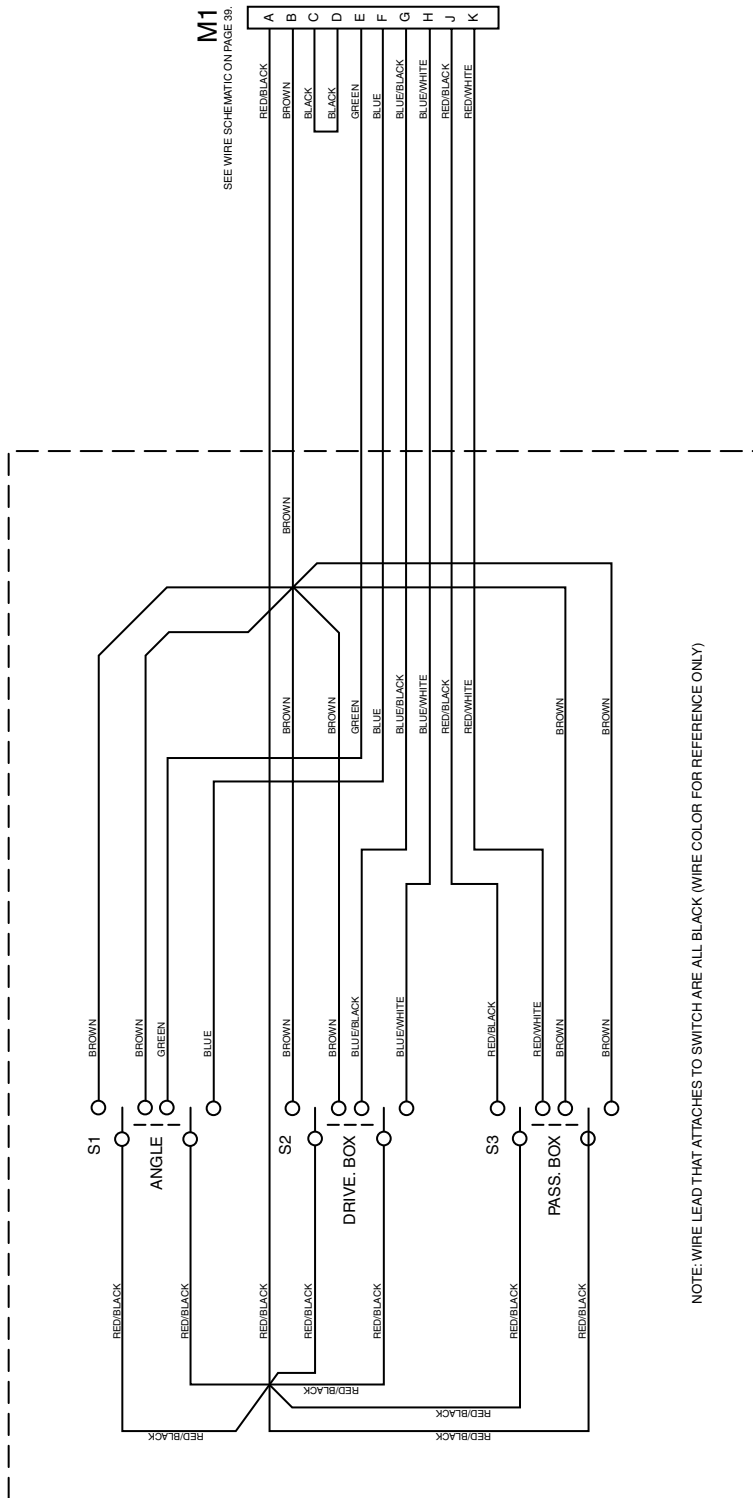


ALL WORK PORTS = # 6SAE  
2 GPM

### 2000/01 MODEL 810SS HYDRAULIC MANIFOLD SCHEMATIC



## 810SS PISTOL GRIP CONTROL WIRE HARNESS P/N 62082

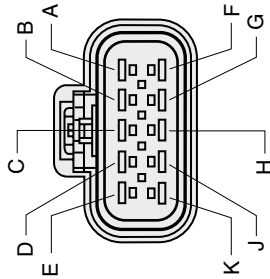


NOTE: WIRE LEAD THAT ATTACHES TO SWITCH ARE ALL BLACK (WIRE COLOR FOR REFERENCE ONLY)

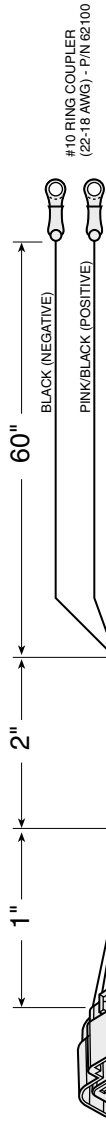
## 810SS WIRE HARNESS EXTENSION WIRE SCHEMATIC

**M2** CONNECTS TO M1 ON PAGE 36.  
 PLASTIC ELECTRIC CONNECTOR -  
 FEMALE (P/N 62046)  
 SILICONE RUBBER CABLE SEAL (18 AWG) - P/N 62096  
 FEMALE TERMINAL (18-16 AWG) - P/N 62093

END VIEW  
 LOOKING AT CONNECTOR



PIN NO.	COLOR	FUNCTION	AWG
A	PINK/BLACK	POWER (POSITIVE)	18
B	BROWN	(S1) PUMP SOLENOID	18
C	BLACK	GROUND (NEGATIVE)	18
D	BLACK	GROUND	18
E	GREEN	(S4) RIGHT ANGLE	18
F	BLUE	(S6) LEFT ANGLE	18
G	BLUE/BLACK	(S2) DRIVE SLIDE BOX RET.	18
H	BLUE/WHITE	(S3) DRIVE SLIDE BOX EXT.	18
J	RED/BLACK	(S5) PASS. SLIDE BOX RET.	18
K	RED/WHITE	(S7) PASS. SLIDE BOX EXT.	18

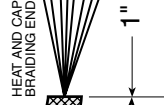


EXTENSION WIRE HARNESS  
 STANDARD (P/N 62105)  
 OPTIONAL (P/N 62106)  
 BLACK NYLON BRAID  
 18 AWG WIRE

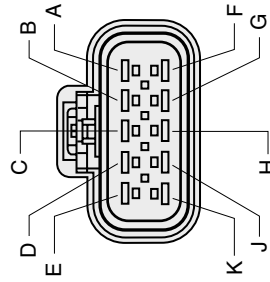
JACKET MATERIAL  
 BLACK NYLON BRAID

**M3** CONNECTS TO M4 ON PAGE 40.

PLASTIC ELECTRIC CONNECTOR -  
 FEMALE (P/N 62046)  
 SILICONE RUBBER CABLE SEAL (18 AWG) - P/N 62096  
 FEMALE TERMINAL (18-16 AWG) - P/N 62093



END VIEW  
 LOOKING AT CONNECTOR



PIN NO.	COLOR	FUNCTION	AWG
A	N/A	N/A	N/A
B	BROWN	(S1) PUMP SOLENOID	18
C	N/A	(S1) PUMP SOLENOID	18
D	BLACK	GROUND	18
E	BLACK	(S4) RIGHT ANGLE	18
F	GREEN	(S6) LEFT ANGLE	18
G	BLUE	(S2) DRIVE SLIDE BOX RET.	18
H	BLUE/BLACK	(S3) DRIVE SLIDE BOX EXT.	18
J	BLUE/WHITE	(S5) PASS. SLIDE BOX RET.	18
K	RED/BLACK	(S7) PASS. SLIDE BOX EXT.	18

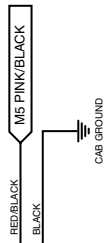
**810SS EXTENSION WIRE HARNESS - STANDARD**  
**192" (16') LONG**  
 P/N 62083

**810SS EXTENSION WIRE HARNESS - OPTIONAL**  
**288" (24') LONG**  
 P/N 62098

NOT DRAWN TO SCALE  
 UNLESS OTHERWISE SPECIFIED  
 ALL DIMENSIONS IN INCHES



**M2**  
SEE WIRE SCHEMATIC ON PAGE 37.

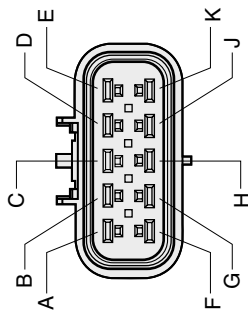


**M3**  
SEE WIRE SCHEMATIC ON PAGE 41.

A	RED/BLACK	
B	BROWN	X
C	BLACK	X
D	BLACK	
E	GREEN	
F	BLUE	
G	BLUE/BLACK	
H	BLUE/WHITE	
J	RED/BLACK	
K	RED/WHITE	

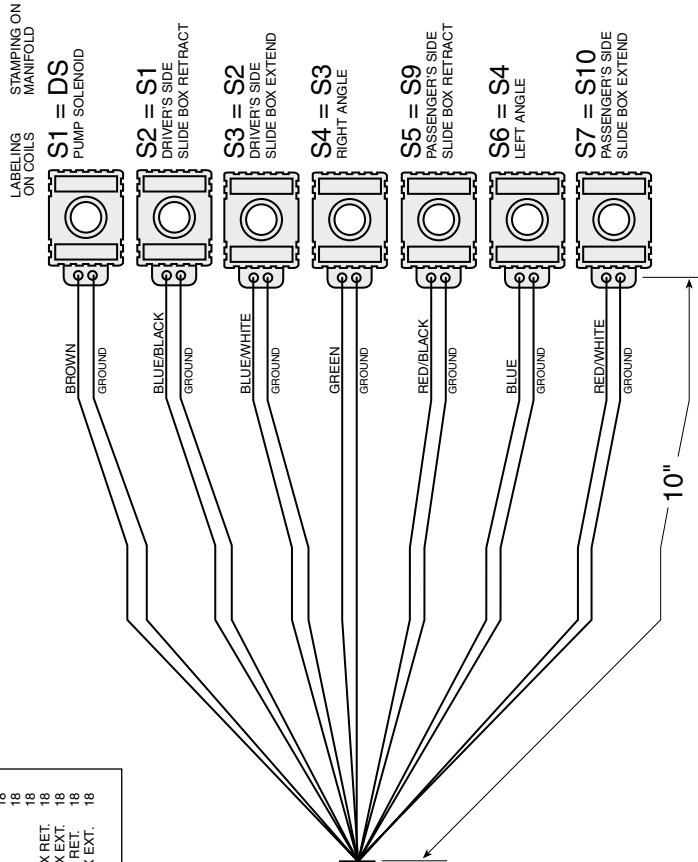
## 810SS WIRE HARNESS EXTENSION WIRE SCHEMATIC

END VIEW  
LOOKING AT CONNECTOR

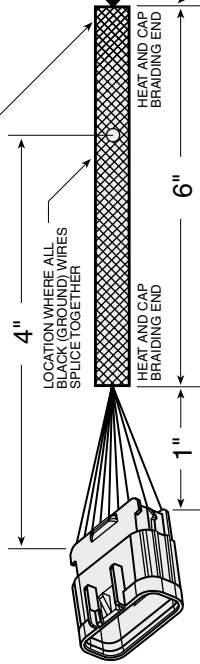


PACKARD GT 280 ELECTRIC CONNECTOR			
PIN NO.	COLOR	FUNCTION	AWG
A	N/A	N/A	N/A
B	BROWN	(S1) PUMP SOLENOID	18
C	N/A	N/A	N/A
D	BLACK	GROUND	18
E	GREEN	(S4) RIGHT ANGLE	18
F	BLUE	(S6) LEFT ANGLE	18
G	BLUE/BLACK	(S2) DRIVE SLIDE BOX RET.	18
H	RED/WHITE	(S7) PASS. SLIDE BOX EXT.	18
I	RED/BLACK	(S5) PASS. SLIDE BOX RET.	18
J	RED/WHITE	(S7) PASS. SLIDE BOX EXT.	18
K	RED/WHITE	(S7) PASS. SLIDE BOX EXT.	18

1/2" COILS - TYPE W DOUBLE LEAD  
12VDC, 25W - PIN 60037



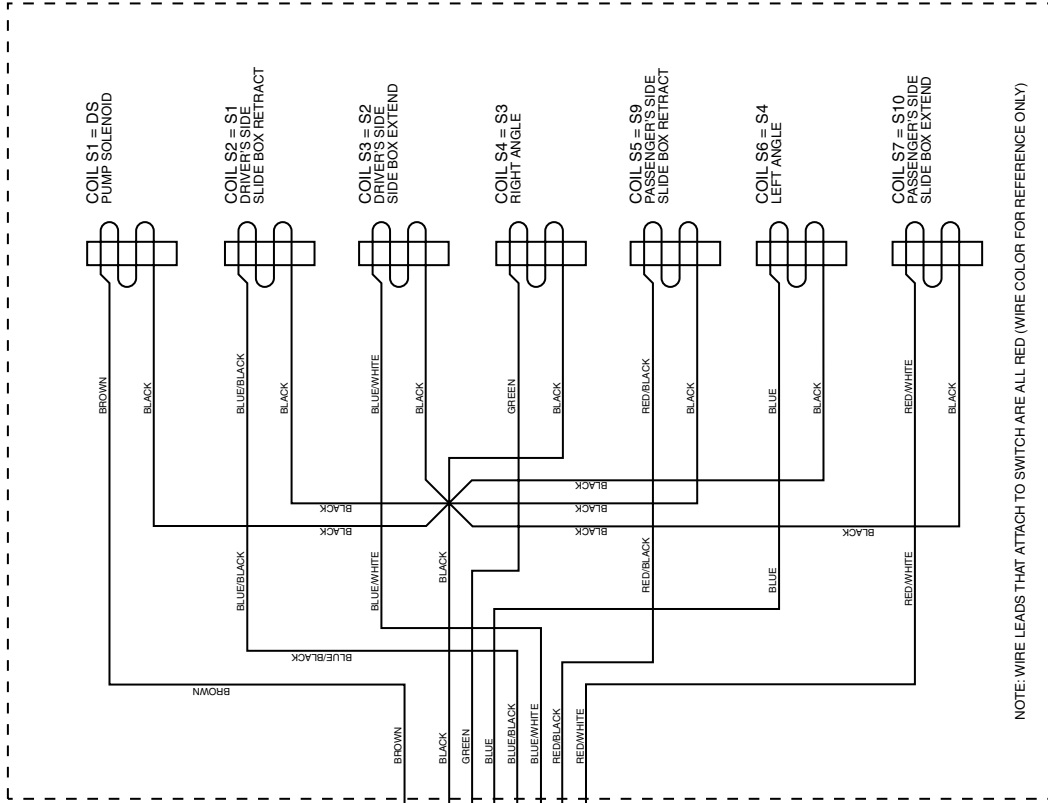
COIL WIRE HARNESS (P/N 62107)  
BLACK NYLON BRAID  
18 AWG WIRE



**M4** CONNECTS TO M3 ON PAGE 38.  
PLASTIC ELECTRIC CONNECTOR - MALE (P/N 62045)  
SILICONE RUBBER CABLE SEAL (18 AWG) - P/N 62066  
MALE TERMINAL (18-16 AWG) - P/N 62097

**810SS HEAVY-DUTY COIL  
WIRE LEAD HARNESS  
P/N 62084**

NOT DRAWN TO SCALE  
UNLESS OTHERWISE SPECIFIED  
ALL DIMENSIONS IN INCHES



**M4**  
SEE WIRE SCHEMATIC ON PAGE 39.

A	BROWN
B	BLACK
C	BLACK
D	BLACK
E	GREEN
F	BLUE
G	BLUE/BLACK
H	BLUE/WHITE
J	RED/BLACK
K	RED/WHITE

## 810SS HEAVY-DUTY COIL WIRE LEAD HARNESS WIRE SCHEMATIC

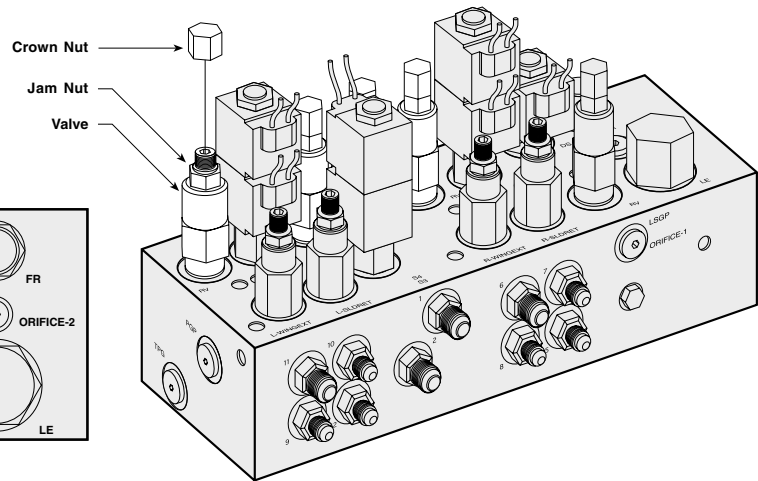
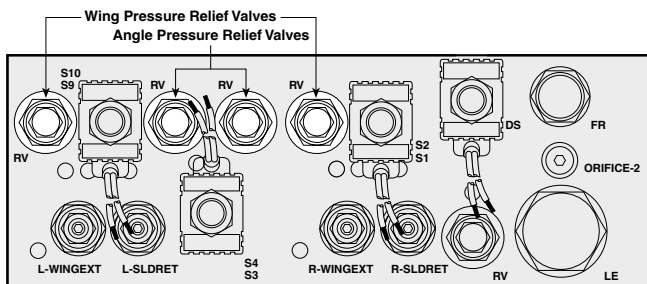
# TROUBLESHOOTING GUIDE

Prior to diagnosing your Power Plow, verify that all connectors (cylindrical connector, plastic electric connectors, ground and power wire terminals, coil wire lead and extension 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 attachment's service needs.

Problem	Probable Cause(s)	Suggested Remedy
Plow functions will not work after all connections are made or plow functions are slow.	No power to the DS cartridge valve (Note: DS cartridge valve opens hydraulic fluid flow to manifold for every function.).	Verify DS cartridge valve is connected properly. Diagnose the wire harness. Review wire harness schematics. If power is present, review the next step.
	DS cartridge valve is receiving power.	Verify that the DS coil is magnetizing. Position a screwdriver inside of the coil. When the respective function is activated, the screwdriver is drawn to the side of the coil. If the solenoid is not drawn to the screwdriver, replace the coil. If power is present, review the next step.
	Solenoid cartridge valve 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.
	Extension wire harness (16' or 24') may be installed wrong.	Review the wire harness schematic(s) for proper connection. Harness connectors may simply be reversed.
Plow functions start and terminate suddenly.	Skid steer hydraulic fluid flow is set to variable flow.	For plow functions to work, the skid steer hydraulic fluid flow should be set to continuous flow. Review your skid steer operation manual for proper flow settings.
Multiple valves, excluding the DS cartridge valve, function simultaneously. (Note: DS valve will energize with every plow function.)	Diode pack may be corroded or damaged.	Clean diode pack thoroughly and/or replace.
	Wire harness may be damaged.	Verify harness is not damaged. Review wire schematic(s) to troubleshoot connection(s). Replace if needed.
Plow functions are reversed. (i.e. Driver's side wing extends when passenger's side wing is activated from the control.)	Hydraulic hoses are connected wrong. (Note: Manifold stamping may be reversed. Review guide under A-frame cover for proper hose port numbering.)	Review the Sequencing Valve & Hose Identification Guide under the A-frame cover for proper port locations.
Skid steer pump relief noise can be heard. Plow movement is broken or will not move.	3/4" hydraulic pressure (P) and tank (T) hoses are installed in the wrong ports.	Review the assembly diagrams on pages 14 and 32 for proper hose installation. (Note: The "Tank" hose contains a 90° swivel fitting and installs on the top port labeled "T".)
Plow angles only one way.	Skid steer computer conflicts with cylindrical connection.	Using a jumper wire, connect pin K to pin L at the back of the cylindrical connector.
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 on page 43 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.

Problem	Probable Cause(s)	Suggested Remedy
Wing will not move.	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.
	No power to the cartridge valve.	Verify S1 & S2 coils (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 all wire harness schematics. If power is present, review the next step.
	Coils are receiving power.	Verify that the coils are magnetizing. Position a screwdriver inside of the coil. When the respective function is activated, the screwdriver is drawn to the side of the coil. If the coil is not drawn to the screwdriver, replace the coil. If power is present, review the next step.
	Cartridge valve 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.	Review all probable causes above.	NOTE: Verify coils 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 by calling our Customer Service Department toll free 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 skid steers other than those for whom Blizzard Corporation has provided a specific mount system.
5. Blizzard Corporation does not assume liability for damage to the purchaser's skid steer resulting from the attachment and use of a Blizzard Power Plow. Skid steer 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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1029-7-99 REV 12/00



## 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 skid steers other than those for whom Blizzard Corporation has provided a specific mount system.
5. Blizzard Corporation does not assume liability for damage to the purchaser's skid steer resulting from the attachment and use of a Blizzard Power Plow. Skid steer 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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1030-7-99 REV 12/00



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