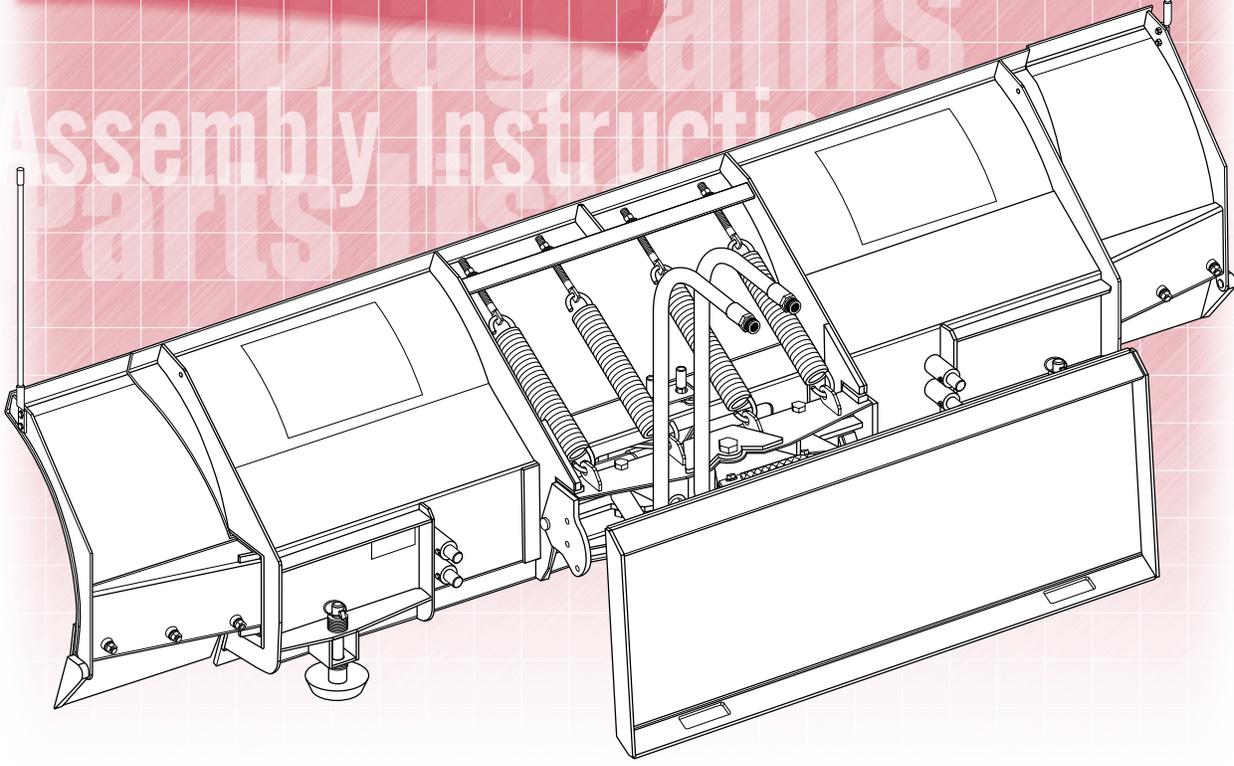


www.blizzardplows.com



2003 Assembly & Operation Manual
Blizzard® Power Plow® Snowplow
Model 810SS

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:

Blizzard Corporation
Customer Service Department
95 Airpark Boulevard
Calumet, MI 49913

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Snowplow Accessories

All of the accessories pictured below are currently offered for your snowplow. See your local authorized Blizzard Dealer for pricing and availability. Visit our web site at www.blizzardplows.com to view new snowplow accessories and our latest Blizzard snowplow wearables.



Auxiliary Control Harness
P/N 62162

Integrate all snowplow controls into your skid steer using an optional auxiliary control harness. This 7 ft. braided harness connects easily to your existing manifold harness on one end and your skid steer on

the other. Assembly of the harness wiring to your skid steer-specific auxiliary electrical controls required. Electrical connector not provided with harness. Some connectors available for purchase.



Rubber Snow Deflector
P/N 61241

Plow safer and easier with our custom rubber snow deflector. This easy-to-install accessory keeps snow off of your windshield and in its place—on the ground! Rugged and durable, the 3/8"

thick, 2-ply construction is made to last. The one piece rubber design allows for wing clearance and provides optimum snow deflection. The deflector is shipped with a "Blizzard Power Plow" vinyl decal and complete mounting hardware.



810SS Trip-Lock Assembly with Hardware
P/N 70028

Turn your Blizzard Power Plow into an all-season skid steer blade with an easy to install trip-lock assembly. This one-piece accessory replaces the standard trip

springs to provide a rigid grading blade. Now you can level and grade material in a fraction of the time! Trip-Lock assembly shipped complete with mounting hardware.



Blizzard Snowplow Touch-Up Paint
P/N 61219 (Gloss White)
P/N 63073 (Gloss Black)

Putting your snowplow away for the winter? Have a deep scratch to cover? Clean up your blade and plow parts with our gloss spray paints. Blizzard snowplow touch-

up paint provides an excellent finish to help keep your snowplow looking its best. Paint provided in 12 oz. spray cans.



Heavy-Duty 3/8" Wing Cutting Edges with Hardware
P/N 61288

Beef-up your Blizzard Power Plow snowplow with our 3/8" thick wing cutting edges. Made of T1 material, these edges are built to withstand heavy plow use on the roughest

road surfaces. These durable wing edges also provide added material for protection against sidewalk curb wear. Mounting hardware included.

Warning!



WARNING:

Prior to operating your Power Plow snowplow, 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 snowplow 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 attachment.
4. Never use the snowplow 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 the attachment 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 hydraulic fittings.

If injured, seek emergency medical help immediately.

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



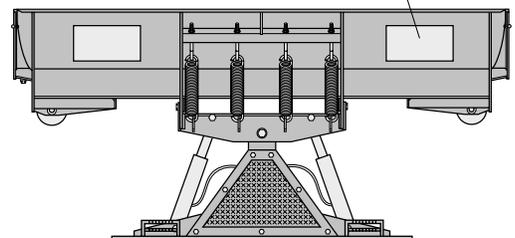
**READ
OWNER'S
MANUAL
THOROUGHLY
PRIOR TO
OPERATING
PLOW.**

 **BLIZZARD®
CORPORATION**

Calumet, MI 49913

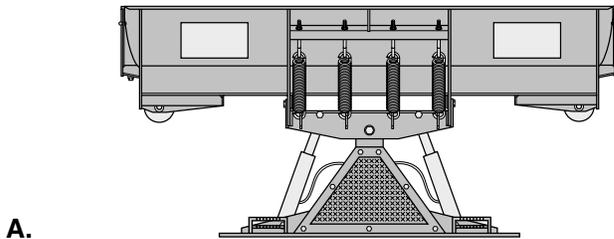
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Should the WARNING! label or any of the labels that came with your snowplow become hard to read or wear off, contact your local authorized Blizzard dealer for replacements.



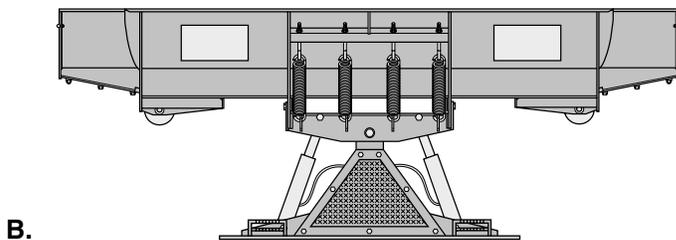
Snowplow Operation

Your Blizzard Power Plow snowplow 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.



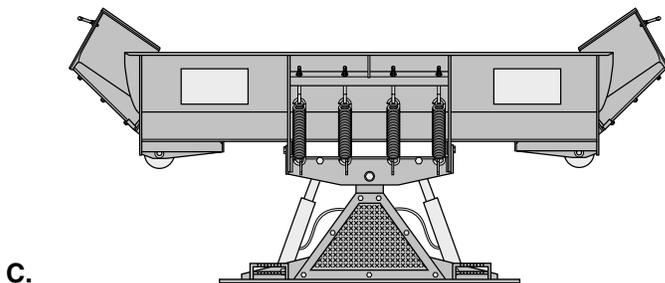
A. Compact Position (8' Blade Width)

- 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*



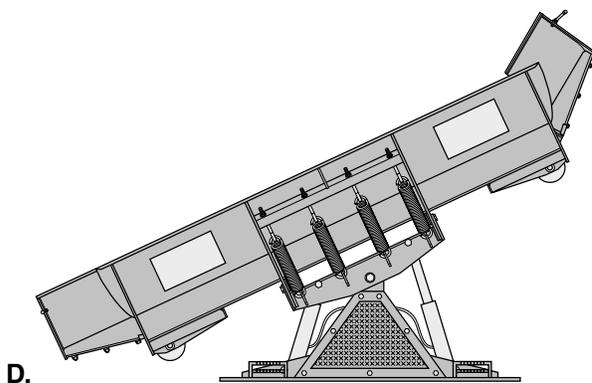
B. WidePass™ Position (10' Blade Width)

- 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*



C. 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*



D. WidePass™ Position Angled with Wing Forward

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

Assembly Instructions

Unpacking & Inspection

Date of Purchase

Dealer/Distributor

Telephone Number

Snowplow Serial Number

Your Blizzard Power Plow snowplow 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 at 1-888-680-8600.

Begin unpacking and inspection in the following order:

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

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

Pallet Wrap End Panel

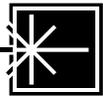
The tear resistant woven polyethylene pallet wrap contains a moisture barrier to help protect all packaged components and keep out the most inclement weather during shipping and storage. The end panel of the pallet cover contains important information regarding the snowplow model and the plow's serial number. Both of these numbers are given together. The first three digits, and two letters, of the number indicated is always the plow model – 810SS and the entire ten digit number make up the serial number. The shipping document is also attached to the end panel. Be sure to retain this list for your records.

THIS SIDE UP ▲

SHIPPING INFORMATION AND PACKAGING CONTENTS

PACKAGING LIST 	MAKE: <input type="checkbox"/> FORD <input type="checkbox"/> GMC/CHEVY <input type="checkbox"/> DODGE <input type="checkbox"/> OTHER _____	
	MODEL: <input type="checkbox"/> GAS <input type="checkbox"/> DIESEL _____	YEAR: _____
	PLOW MODEL: _____	

U.S. PATENT NO. 5,638,618 U.S. PATENT NO. 5,899,007 OTHER PATENTS PENDING

**BLIZZARD**TM
POWER PLOW

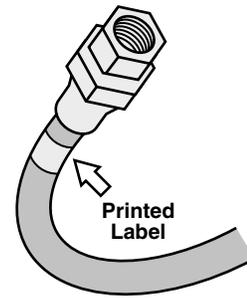
MADE IN THE U.S.A.

**POWER HITCH**TM

▼ *FORKLIFT POINTS* ▼

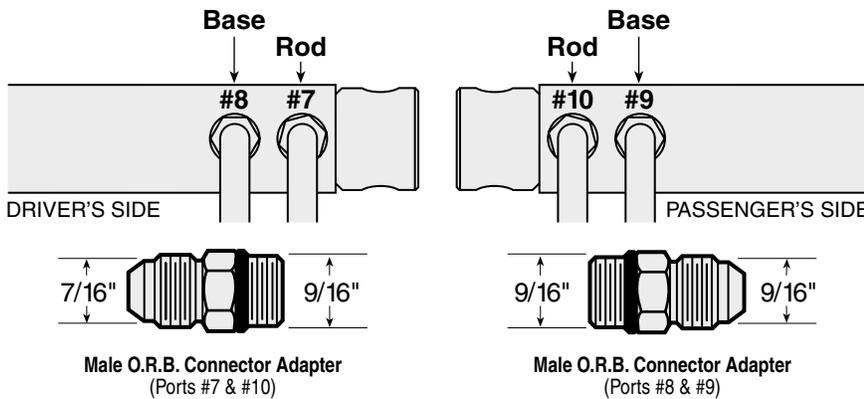
Moldboard Assembly

1. Begin the moldboard assembly by first removing each dust cap from both of the SLIDE BOX CYLINDERS located at the center/rear of the MOLDBOARD. Attach one 7/16"-20 x 9/16"-18 MALE O.R.B. CONNECTOR to each of the retract ports (#7 & #10) and one 9/16"-18 x 9/16"-18 MALE O.R.B. CONNECTOR to each of the extend ports (#8 & #9). Review the diagram below. *Note: All of the hydraulic adapters can be found packaged with the manifold assembly. Reference the table on page 13 for proper torque specifications.*



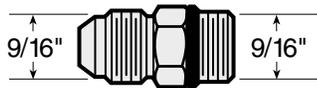
All of the hoses shipped with the snowplow contain a printed label (with a part number) applied to the hose. Install the following hoses to their respective ports on the manifold:

Hose P/N 60091 Ports #1 & #2
 Hose P/N 60019 Ports #7 & #10
 Hose P/N 60224 Ports #8 & #9
 Note: See diagram on page 6.

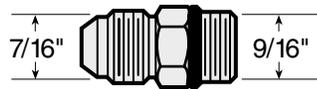


2. Connect the hoses to each of the hydraulic adapters on the cylinders. Ports #7 & #10 receive a 1/4" x 36" HYDRAULIC HOSE (P/N 60019). *Note: Review the label on each hose for the appropriate part number.* Ports #8 & #9 receive a 3/8" x 36" HYDRAULIC HOSE (P/N 60224).
3. Next, position the PIVOT BEAM and the A-FRAME, near the mount locations at the rear of the blade, between the two center support ribs. Place the right and left group of hydraulic hoses (connected to the slide box cylinders) through the 1-1/2" diameter rubber grommet openings in the front face of the pivot beam.
4. 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" DIA. x 3" CLEVIS PIN through each mounting hole and secure them with one 1/4" DIA. x 1-1/2" COTTER PIN.
5. Hook each EXTENSION SPRING to the receiving holes located on the pivot beam and connect the opposite end of the spring to their respective SPADE BOLTS. Install the 5/8"-11 x 6-3/8" 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 a piece of paper can pass between the 3th & 4th coils on the spring.
6. Install the flexible BLADE GUIDES at each end of the moldboard. Insert the 5/16"-18 x 1" hex head cap screw through the holes at the top of the wing reinforcement rib. Tighten all screws using the nylon insert lock nuts provided.

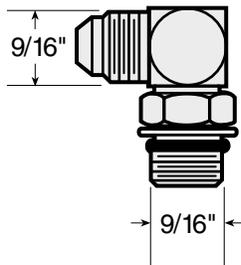
Congratulations! You have successfully completed the first stage of assembly for the Blizzard Power Plow Model 810SS. In the next section you will assemble the A-frame and the components that are attached to it.



Male O.R.B. Connector Adapter
(Port #1, #2, #8 & #9)



Male O.R.B. Connector Adapter
(Port #7 & #10)



90° Adjustable Elbow O.R.B. Adapter
(Left & Right Angle Cylinders)

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

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 1-1/2" hex cap screws and washers from the cover to gain access to the hydraulic manifold.
2. Each of the 6 HOSE PORTS receive a HYDRAULIC ADAPTER (see illustrations to the left). Once the adapters have been installed, connect 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 on page 13 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 A-frame cover (shown below).

Hydraulic Valve & Hose Port Identification Guide (Model 810SS)

Angle Pressure Relief Valve
Wing Pressure Relief Valves

NOTE: Check valves CV1 & CV3 are not illustrated. Both valves are located on the opposite side of the manifold in the diagram shown below.

HYDRAULIC HOSES	
Port	Function
1	Right Angle - Left Cylinder
2	Left Angle - Right Cylinder
7	Left Slide Box Retract
8	Left Slide Box Extend
9	Right Slide Box Extend
10	Right Slide Box Retract

RELIEF & CHECK VALVES	
Valve	Function
RV1	Left Wing Pressure Relief
RV2	Left Wing Anti-Cavitation
RV3	Right Wing Anti-Cavitation
RV4	Right Wing Pressure Relief
RV5	Angle Relief
CV1	Left Wing Check Valve
CV2	Left Slide Box Check Valve
CV3	Right Wing Check Valve
CV4	Right Slide Box Check Valve

NOTE: Energize the following solenoids for the functions:

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

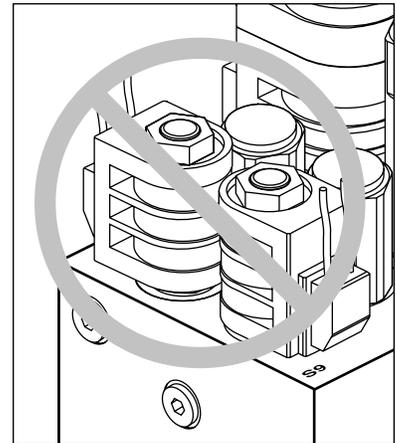
BLIZZARD
CORPORATION

Calumet, MI 49913 BLZ 1056

3. 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 away from the A-frame.* Each adapter should be angled toward the top of the moldboard. Review the torque specifications chart on page 13. Connect one 3/8" x 24" hydraulic hose (P/N 60091) to each 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.

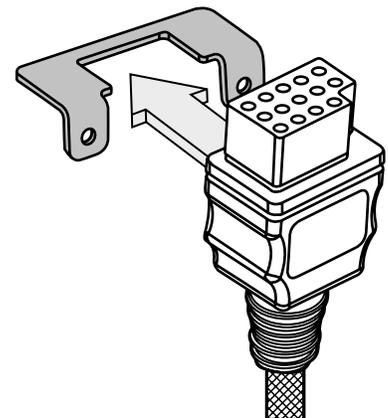
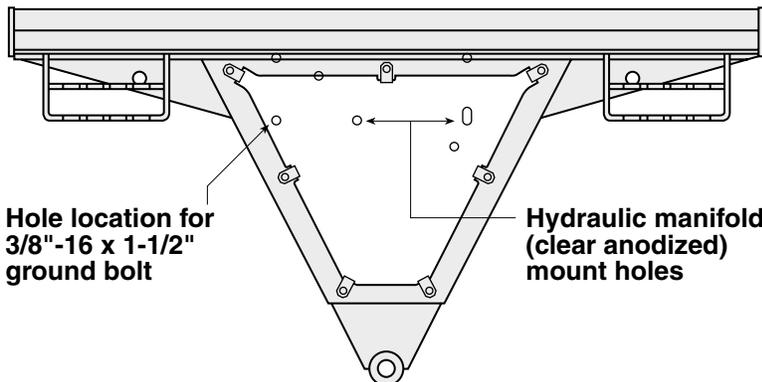
4. The **PRESSURE & TANK HYDRAULIC HOSES** attach to the ports on the side of the manifold labeled "P" and "T". Verify that the 3/4" x 78" hydraulic hose with the 1-1/16"-12 female swivel is attached to the 1-1/16"-12 x 1-1/16"-12 **MALE O.R.B. CONNECTOR ADAPTER** located in the pressure port ("P"). The 3/4" x 78" hydraulic hose, with the male O.R.B. 90° swivel, connects to the tank port ("T"). Once you have completed the installation of the hydraulic hoses, begin to install the wire harness.



When handling the hydraulic manifold **DO NOT** hold 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 - Control Wire Harness

1. Begin the installation by connecting the **MALE ELECTRIC CONNECTOR** found on the **COIL WIRE HARNESS** (on manifold) to the **FEMALE ELECTRIC CONNECTOR** on the **WIRE HARNESS EXTENSION (PLOW)**. Once both connectors are locked together, feed the opposite end of the wire harness extension through the top access hole (same as 3/4" tank hydraulic hose) in the A-frame located on the driver's side.
2. Locate the **GROUND END RING TERMINAL** on the coil wire harness and wire harness extension. Using a 3/8"-16 x 1-1/2" hex cap screw and 3/8" tooth lock washer, ground both wires to the A-frame. Secure the wires using a 3/8" top lock nut. Review the diagram below for the proper ground location.



The Model 810SS control wire harness is packaged with a stainless steel mount bracket (P/N 70040). Use the bracket to secure the wire harness extension (vehicle) to the skid steer. Position the bracket in the notch provided on the molded rubber connector and mount it to the skid steer. Locate the bracket in an accessible location for easy on-and-off installation of the harness.

3. Next, connect the **MOLDED RUBBER CONNECTOR** from the wire harness extension (plow) to the connector on the **WIRE HARNESS EXTENSION (VEHICLE)**. Lock together the remaining male electric connector on the **PISTOL GRIP CONTROL HARNESS** to the female electric connector on the wire harness extension (vehicle). Complete the electrical assembly by attaching the **BLACK, GROUND** wire from the wire harness extension 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.

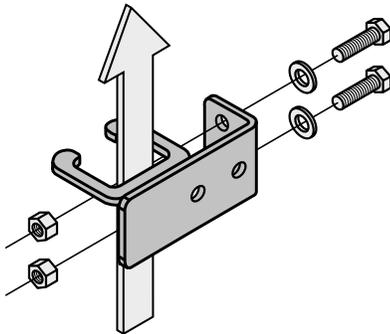
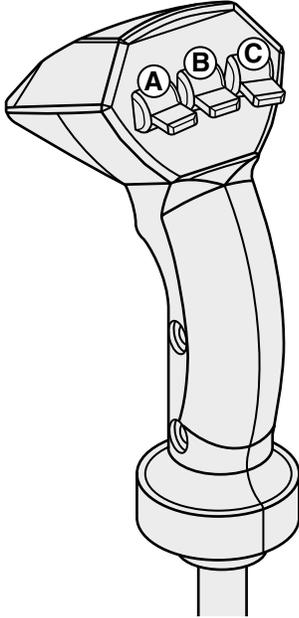
Manifold Mount Holes

There are three sets of holes in the bottom plate on the A-frame. Each set is used for specific model year snowplow components. The **CLEAR** anodized manifold (2003) uses the center most hole and the slotted hole to mount the manifold. The hole opposite from the slotted hole serves as the location for the ground stud. Use a 3/8"-16 x 1-1/2" bolt, tooth lock washer and 3/8"-16 top lock nut to secure the electrical grounds to the A-frame.

810SS Pistol Grip Control Functions

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

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



Pistol Grip Control Mount Bracket

The bracket is designed to mount in a variety of positions (see hole placement above). Use the hardware provided to secure the bracket to the skid steer.

Position the pistol grip control into the bracket and "twist-lock" it into place. Depending on operator preference, the control can be mounted vertically or horizontally.

Note: Some skid steer models have safety devices that rotate in front of the operator when seated. Do not install the mount bracket such that it interferes with the operation of these devices.

4. Complete the assembly by attaching the A-frame cover. Align the holes in the cover with those on the A-frame and secure it with 3/8"-16 x 1-1/2" hex cap screws and 3/8" washers.

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

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 9.
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 hydraulic hose with the female swivel is attached to the male adapter connector located in the pressure port ("P") on the manifold. The remaining hydraulic hose with the 90° swivel 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.* The left switch operates the DRIVER'S SIDE WING. Push the switch UP to EXTEND the wing and DOWN to RETRACT the wing. Push the center switch UP to LEFT ANGLE the snowplow and DOWN to RIGHT ANGLE. 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 your local authorized Blizzard dealer.

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

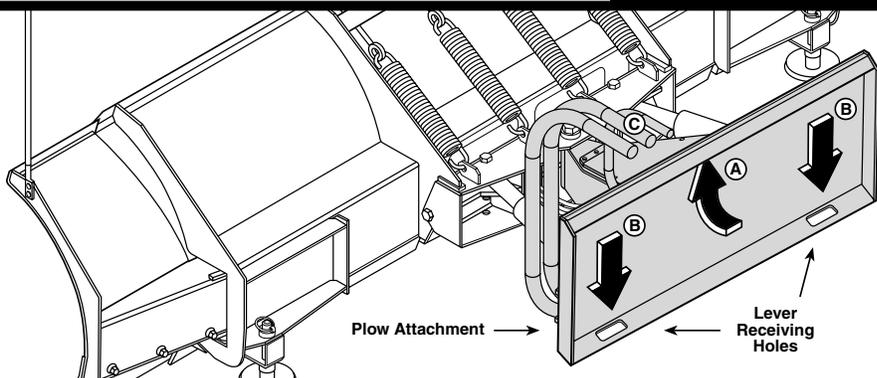
MOUNTING

1. Position the skid steer close to the snowplow attachment and align the mount points on the skid steer plate to those on the 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 snowplow 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 snowplow 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 connections 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 attachment 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 snowplow 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 attachment. Failure to follow this instruction may result in serious injury or death.

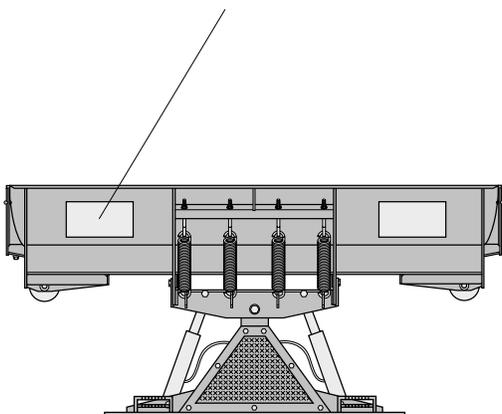


A Skid steer plate attaches under the top lip of the snowplow attachment.

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

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

BLZ 1014



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 authorized Blizzard dealer for replacements.

Plow Specifications

Moldboard

Length8'
 Thickness12 Gauge
 Height31"
 Reinforcement4 Ribs @ 1/4"
 Cutting Edge1/2" x 6" (1080)
 Finish.....Powder Coat - White

Wings

Length12"
 Thickness11 Gauge
 Height31"
 Reinforcement1 Rib each @ 1/4"
 Cutting Edge1/4" x 10" (T1)
 Finish.....Powder Coat - White

Trip Mechanism

Trip Spring Type(4) 3/8" Hooked Extension
 Trip Spring Adjust.5/8"-11 x 6-3/8" Spade Bolts

A-frame

Material1/4" & 5/16" Mild Steel
 Cover1/4" Mild Steel w/Non-Skid Texture
 Finish.....Powder Coat - Black

Manifold

ConstructionClear Anodized Aluminum
 Ports8
 Cartridge Valves6
 Relief/Anti-Cavitation Valves5
 Check Valves4
 Pressure Compensation Regulation Valve1
 Weight19.66 lb.
 Mount.....A-frame Install w/Hex Head Screws

Cylinders

Angle Cylinders2
 Stroke10"
 Ram Diameter1-3/4"
 Bore Diameter2"

Slide Box Cylinders2
 Stroke13-15/16"
 Ram Diameter1"
 Bore Diameter1-1/2"

Miscellaneous

Plow WeightApprox. 950 lb.
 Compact Plow Width8'
 WidePass™ Plow Width10'
 BucketBlade™ Plow Width9'-3"
 Adjustable Plow Shoes.....(2) Heavy-Duty Cast Steel
 Mount Mechanism.....Universal Attachment Plate
 Standard Control StationPistol Grip w/3 Switches
 Integrated Control (Optional)Auxiliary Harness
 Anti-Trip (Optional)One Piece Trip-Lock Bar

All specifications are for the Model 810SS Blizzard Power Plow snowplow.

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.

Torque Specifications



- Grade Identification Marking for J429 - Grade 5 Bolt**
- Material: Medium carbon steel: quenched and tempered
 - Minimum Proof Strength: 85,000 psi
 - Minimum Tensile Strength: 120,000 psi
 - Core Hardness Rockwell (min.): C25, (max.): C34
 - Minimum Yield Strength: 92,000 psi

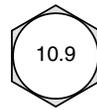


- Grade Identification Marking for J429 - Grade 8 Bolt**
- Material: Medium carbon alloy steel:quenched and tempered
 - Minimum Proof Strength: 120,000 psi
 - Minimum Tensile Strength: 150,000 psi
 - Core Hardness Rockwell (min.): C33, (max.): C39
 - Minimum Yield Strength: 130,000 psi

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



- Grade Identification Marking for Metric - Grade 8.8 Bolt**
- Material: Medium carbon steel: quenched and tempered
 - Minimum Proof Strength: 580 MPa
 - Minimum Tensile Strength: 800 MPa
 - Core Hardness Rockwell (min.): C22, (max.): C32
 - Minimum Yield Strength: 640 MPa



- Grade Identification Marking for Metric - Grade 10.9 Bolt**
- Material: Low carbon alloy steel: quenched and tempered
 - Minimum Proof Strength: 830 MPa
 - Minimum Tensile Strength: 1040 MPa
 - Core Hardness Rockwell (min.): C32, (max.): C39
 - Minimum Yield Strength: 940 MPa

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

37° JIC Flare Torque Values			
Turns	Size	ft-lbs min./max.	Assembly Steps w/Visual Check
N/A	-02	6 - 7	1. Make sure the tubing and threads are clean.
N/A	-03	8 - 9	2. Lubricate the threads with 10W hydraulic oil.
2	-04	11 - 12	3. Hand tighten the nut/sleeve to approx. 30 in-lbs.
2	-05	14 - 15	4. Make alignment marks on the nut and fitting.
1-1/2	-06	18 - 20	5. Proceed to tighten to turns or ft-lb values.
1-1/2	-08	36 - 39	6. When fully tightened make a 2nd set of alignment marks at the fully tightened position.
1-1/2	-10	57 - 63	
1-1/4	-12	79 - 88	
1	-14	94 - 103	
1	-16	108 - 113	Note: Torque values specified are for threads lubricated with 10W hydraulic oil.
1	-20	127 - 133	
1	-24	158 - 167	Sizes -02 through -08 are less tolerant to over-torque abuse. This will reduce the clamping force resulting in loss of seal and reduction in flow.
1	-32	245 - 258	

O-Ring Boss Torque Values		
Size	ft-lbs min./max.	O-Ring Boss Assembly
-02	6 - 7	1. Verify the port, O-ring, sealing surfaces, and threads are clean and free of damage.
-03	8 - 10	
-04	13 - 15	2. Lubricate the threads and the O-ring with 10W hydraulic oil.
-05	17 - 21	3. For an adjustable O.R.B., completely back-off the lock nut and the washer.
-06	22 - 25	4. Hand tighten the fitting until it contacts the port spotface. Point the elbow or tee in the desired direction and hold.
-08	40 - 43	5. Proceed to tighten to the proper specified torque value.
-10	43 - 57	
-12	68 - 75	
-14	90 - 99	
-16	112 - 123	Note: Torque values specified are for threads lubricated with 10W hydraulic oil.
-20	146 - 200	
-24	154 - 215	
-32	218 - 290	

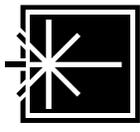
Disclaimer: All torque values included in the charts above are advisory only, and their use by anyone is entirely voluntary. Reliance on the contents for any purpose by anyone is the sole risk of that person and Blizzard Corporation is not responsible for any loss, claim or damages arising therefrom.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

MODEL 810SS PARTS LIST

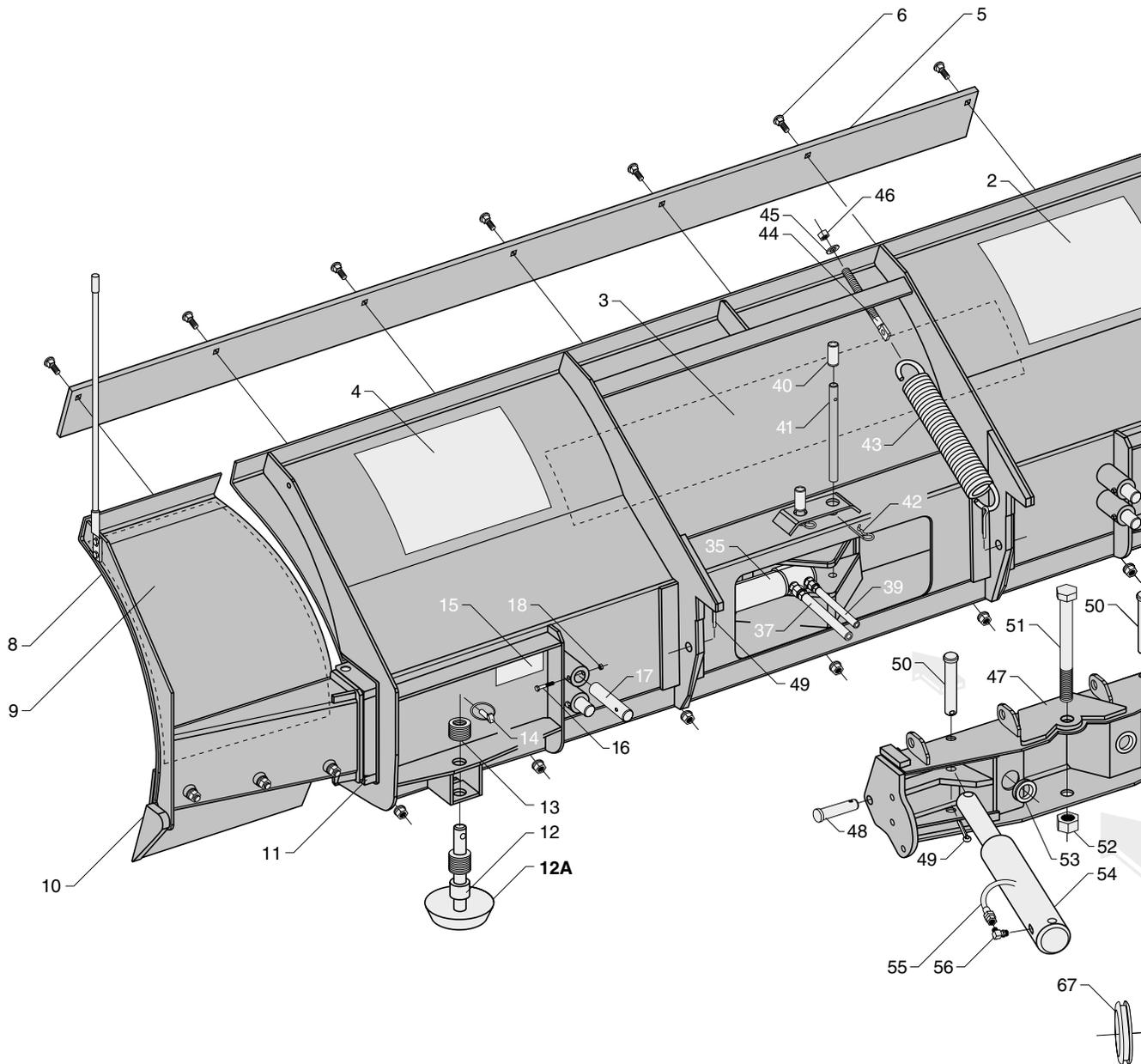
Ref. No.	Part Number	Qty.	Part Description	
Moldboard & Wing Assembly Parts				
1	52074	1	Moldboard Weldment	<i>Note: The reference numbers listed identify parts shown in the illustration on pages 16-18. These numbers are specific to these illustrations only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.</i>
2	61170	1	Label, WARNING! (BLZ 1013)	
3	61082	1	Decal, Center Moldboard (BLZ 1000)	
4	61171	1	Label, Skid Steer Mounting & Dismounting Instructions (BLZ 1014)	
5	61292	1	Cutting Edge (1080), Moldboard	
6	61196	7	Bolt, Carriage, 1/2"-13 x 1-1/2" Grade 8 P	
7	61365	13	Nut, Flanged Lock, 1/2"-13	
8	51042	1	Wing Weldment, Driver's Side	
9	61083	1	Decal, Wing, Driver's Side (BLZ 1002)	
10	51048	1	Cutting Edge Weldment (T1), Wing, Driver's Side	
11	50057	1	Slide Box Weldment, Driver's Side	
12A	61220	2	Plow Shoe Assembly, Heavy-Duty Cast Iron (8-3/8" Shaft): (1) - 12, 14, (18) - 13	
12	61102	2	Spacer, 1-1/8" I.D., 1-5/8" O.D. x 1-1/2" YZ	
13	61101	36	Washer, Flat, 1", 1-1/016" I.D., 1-3/4" O.D. YZ	
14	61103	2	Pin, Linch, 7/16" x 1-3/4" YZ	
15	63063	1	Label, Serial Number, Sequentially Numbered (BLZ 1049)	
16	61383	4	Screw, Hex Head Cap, 5/16"-18 x 2-1/4" Grade 8 YZ	
17	11871	4	Pin, Slide Box Stop, 1" DIA. x 4-3/4" (with 3/8" DIA. hole)	
18	61384	4	Nut, Top Lock, 5/16"-18 Grade C Z	
19A	61049	2	Plow Guide Assembly: (2) - 19 & 20	
19	61051	4	Screw, Hex Head Cap, 5/16"-18 x 1" Grade 5 Z	
20	61052	4	Nut, Nylon Insert Lock, 5/16"-18 Z	
21	51043	1	Wing Weldment, Passenger's Side	
22	61084	1	Decal, Wing, Passenger's Side (BLZ 1001)	
23	51047	1	Cutting Edge Weldment (T1), Wing, Passenger's Side	
24	61418	2	Bolt, Carriage, 1/2"-13 x 3-1/2" Grade 8 P	
25	61419	2	Bolt, Carriage, 1/2"-13 x 4-1/2" Grade 8 P	
26	61361	2	Bolt, Carriage, 1/2"-13 x 5-1/2" Grade 8 P	
27	50058	1	Slide Box Weldment, Passenger's Side	
28	61416	2	Bolt, Spade, 5/8"-11 x 7-3/8" Grade 8 Z	
29	61398	2	Spring, Extension, 13" O.A.L. x 2" O.D. x 5/16"	
30	61385	2	Pin, Clevis, 5/8" DIA. x 3" YZ	
31	61028	2	Pin, Spring, 1/4" DIA. x 1-1/4"	
32	51009	2	Pin, Wing/ Slide Box Pivot, 3/4" DIA. x 9"	
33	61425	2	Plug, 2-51/64" O.D., 2-9/32" I.D. x 1/2" Black Polyethylene	
34	14622	2	Hydraulic Cylinder, Slide Box Extend/Retract	
35	61063	2	Nut, Top Lock, 5/8"-11 Grade C Z	
36	60007	6	Hydraulic Adapter, 9/16"-18 x 9/16"-18 Male O.R.B. Connector	
37	60224	2	Hydraulic Hose (Ports #8 & #9), 3/8" x 36" - Slide Box Extend	
38	60003	4	Hydraulic Adapter, 7/16"-20 x 9/16"-18 Male O.R.B. Connector	
39	60019	2	Hydraulic Hose (Ports #7 & #10), 1/4" x 36" - Slide Box Retract	
40	61198	2	Cap, 5/8" I.D., 3/4" O.D. x 1", Black Vinyl	
41	11989	2	Pin, Hydraulic Cylinder Base End, 5/8" DIA. x 11-1/2" (with 1/4" DIA. hole) - Slide Box Extend/Retract	
42	61030	2	Pin, Hair Cotter, 1/8" DIA. x 2-5/8" Z	
43	61099	4	Spring, Extension, 15-1/4" O.A.L. x 2-3/8" O.D. x 3/8"	
44	61187	4	Bolt, Spade, 5/8"-11 x 6-3/8" Grade 8 Z	
45	61064	4	Washer, SAE Mil Carb High-Strength, 5/8", 1-5/16" O.D., 21/32" I.D. YZ	
46	61188	4	Nut, Nylon Insert Lock, 5/8"-11 Type NE	
Pivot Beam & A-frame Assembly Parts				
47	41041	1	Pivot Beam Weldment	
48	50069	2	Pin, Clevis, 3/4" DIA. x 3" YZ	
49	61357	6	Pin, Cotter, 1/4" x 1-1/2" Z	
50	41051	4	Pin, Clevis, 3/4" DIA. x 5" YZ	
51	61330	1	Screw, Hex Head Cap, 1"-8 x 9" (with 7-3/4" Shank) Grade 8 P	
52	61008	1	Nut, Top Lock, 1"-8 Grade C Z	
53	61217	4	Grommet, 1-1/2" I.D., 2-1/8" O.D. Black Rubber, 60 Durometer	
54	60029	2	Hydraulic Cylinder, Plow Angle	
55	60091	2	Hydraulic Hose (Ports #1 & #2), 3/8" x 24" - Plow Angle	
56	60005	2	Hydraulic Adapter, 9/16"-18 x 9/16"-18 90° Adjustable Elbow O.R.B.	
57A	70045	1	A-frame Cover Assembly: (1) - 57-59	
57	70041	1	Cover, A-frame	
58	63068	1	Label, Sequence Valve & Hydraulic Hose Identification Guide (BLZ 1052)	
59	70021	1	Grip, Non-skid, Rubber	
60	61016	11	Washer, SAE Mil-Carb High-Strength, 3/8", 13/16" O.D., 13/32" I.D., YZ	
61	61328	8	Screw, Hex Head Cap, 3/8"-16 x 1-1/2" Grade 8 YZ	
62A	70044	1	A-frame Assembly: (1) - 57A, 62, 69, (2) - 67, (7) - 60, 61, 68	
62	70043	1	A-frame Weldment	
63	61313	2	Screw, Hex Head Cap, 3/8"-16 x 3-3/4" Grade 8 YZ	
64	61307	1	Washer, Internal/External Tooth Lock, 3/8"	
65	61034	3	Nut, Top Lock, 3/8"-16 Grade C Z	
66	61222	2	Washer, Split Lock, 3/8" YZ High-Alloy	

MODEL 810SS PARTS LIST

Ref. No.	Part Number	Qty.	Part Description
Pivot Beam & A-frame Assembly Parts (Continued)			
67	61366	2	Grommet, 1-15/16" I.D., 2-5/8" O.D. Black Rubber, 60 Durometer
68	61275	7	U-Nut, 3/8"-16
69	61085	1	Decal, Blizzard Snowplows, 2-1/4" x 13-7/8" (BLZ 1003)
Hydraulic Manifold Assembly Parts			
70	60086	1	Hydraulic Hose, 3/4" x 78" - 1-1/16"-12 Female Swivel/ 3/4"-14 Male Pipe Straight, Pressure Port "P"
71	60087	1	Hydraulic Hose, 3/4" x 78" - 1-1/16"-12 Male O.R.B. 90° Swivel/ 3/4"-14 Male Pipe Straight, Tank Port "T"
72A	60268	1	Hydraulic Manifold Assembly: (1) - 72-74, 78A, 81, 82, (2) - 38, 77, 83, 84, 60322, (4) - 36, 75, 76, (5) - 79
72	60267	1	Manifold Block (with Cross Port Relief) Clear Anodized Aluminum (30102904)
73	60089	1	Hydraulic Adapter, 1-1/16"-12 x 1-1/16"-12 Male O.R.B. Connector
74	60183	1	Valve, Pressure Compensation Regulation (88400015)
75	60225	4	Valve, Check, 50 PSI (86020028)
76	60166	4	Valve, Spool, Three-Way, Two Position (86020195 w/o screen)
77	60278	2	Valve, Relief, 1700 PSI (85020411 tamper proof)
78A	62161	1	Coil Harness Assembly: (1) - 62045, 62118, (2) - 80, (3) - 62116, (5) - 78, (7) - 62096 & 62097
78	62163	5	Coil, PDL, 12V DC (38400066)
79	60052	5	Nut, Hex Jam, 1/2"-20 YZ
80	62164	2	Coil, LDL, 12V DC (63900506)
81	60321	1	Valve, Spool, Four-Way, Three Position (85020081 w/o screen)
82	60168	1	Valve, Relief, 3000 PSI (85020340)
83	60049	2	Plug, #4 SAE (61010016)
84	60279	2	Valve, Relief, 1500 PSI (85020410 tamper proof)
85	60320	1	Valve, Spool, N.O. (86020193)
N/A	60322	2	Piston Assembly (34952125)
Pistol Grip Control Wire Harness Assembly Parts			
86A	62131	1	Pistol Grip Control Wire Harness Assembly: (1) - 86, 87 & 62132-62135
86	62082	1	Wire Harness, Pistol Grip
N/A	62132	1	Wire Harness Extension, Vehicle Side
N/A	62133	1	Weather Cap, Molded Rubber, Female (Wire Harness Extension, Vehicle Side)
87	70040	1	Mount Bracket, Wire Harness Extension, Vehicle Side
N/A	62134	1	Wire Harness Extension, Plow Side
N/A	62135	1	Weather Cap, Molded Rubber, Male (Wire Harness Extension, Plow Side)
N/A	62045	2	Connector, Electric, Male, Plastic
N/A	62097	17	Terminal, Male (18-16 AWG)
N/A	62096	35	Seal, Cable, Silicone, Orange (18 AWG)
N/A	62116	5	Plug, Cavity, Silicone, White (18-16 AWG)
N/A	62046	2	Connector, Electric, Female, Plastic
N/A	62100	2	Terminal, Ring, #10 (22-18 AWG)
N/A	62093	18	Terminal, Female (18-16 AWG)
N/A	62118	1	Terminal, End Ring, 3/8" I.D. Zinc, 6 Gauge (Coil Harness)
N/A	62072	1	Terminal, End Ring, 3/8" I.D. Copper, 4 Gauge (Wire Harness Extension, Plow Side)
88A	70048	1	Pistol Grip Control Mount Bracket Assembly: (1) - 88, (2) - 60, 89 & 90
88	70049	1	Mount Bracket, Pistol Grip Control
89	61214	2	Screw, Hex Head Cap, 3/8"-16 x 1-1/4" Grade 8 YZ
90	61014	2	Nut, Jam Nylon Insert Lock, 3/8"-16 Z, Type NTE
Miscellaneous Assembly Parts			
N/A	61277	1	Kit, Hardware, Snowplow Assembly Parts: (1) - 61, 64, 65, (2) - 48, 49, (4) - 44-46
N/A	60319	1	Kit, Hydraulic Adapter: (2) - 56, (4) - 38, (6) - 36
N/A	60323	1	Kit, Hydraulic Hose: (1) - 70 & 71, (2) - 37, 39 & 55
N/A	61430	1	Kit, Hardware, Moldboard Cutting Edge: (7) - 6 & 7
N/A	52067	1	Kit, Cutting Edge, Moldboard w/Hardware: (1) - 5, 61430
N/A	61431	1	Kit, Hardware, Wing Cutting Edge: (1) - 24-26, (3) - 7
N/A	51104	1	Kit, Cutting Edges, Wing w/Hardware: (1) - 8, 21, (2) - 61431
N/A	61321	1	Kit, Moldboard & Wing Cutting Edges w/Hardware: (1) - 52067, 51104



BLIZZARD® POWER PLOW

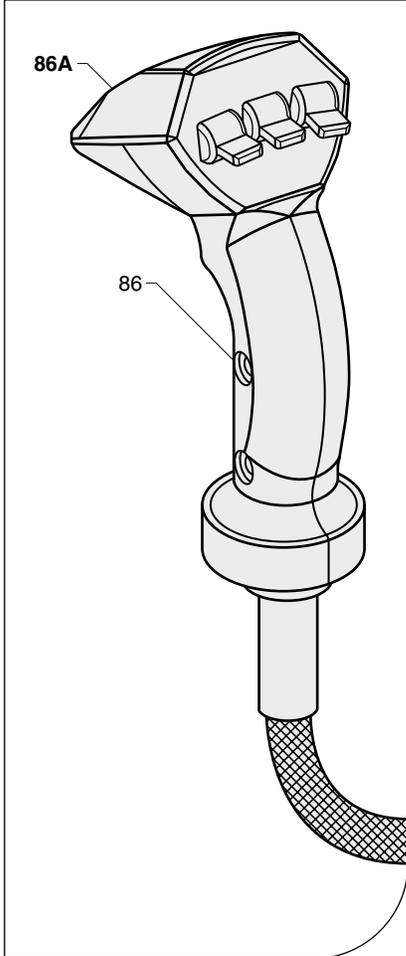
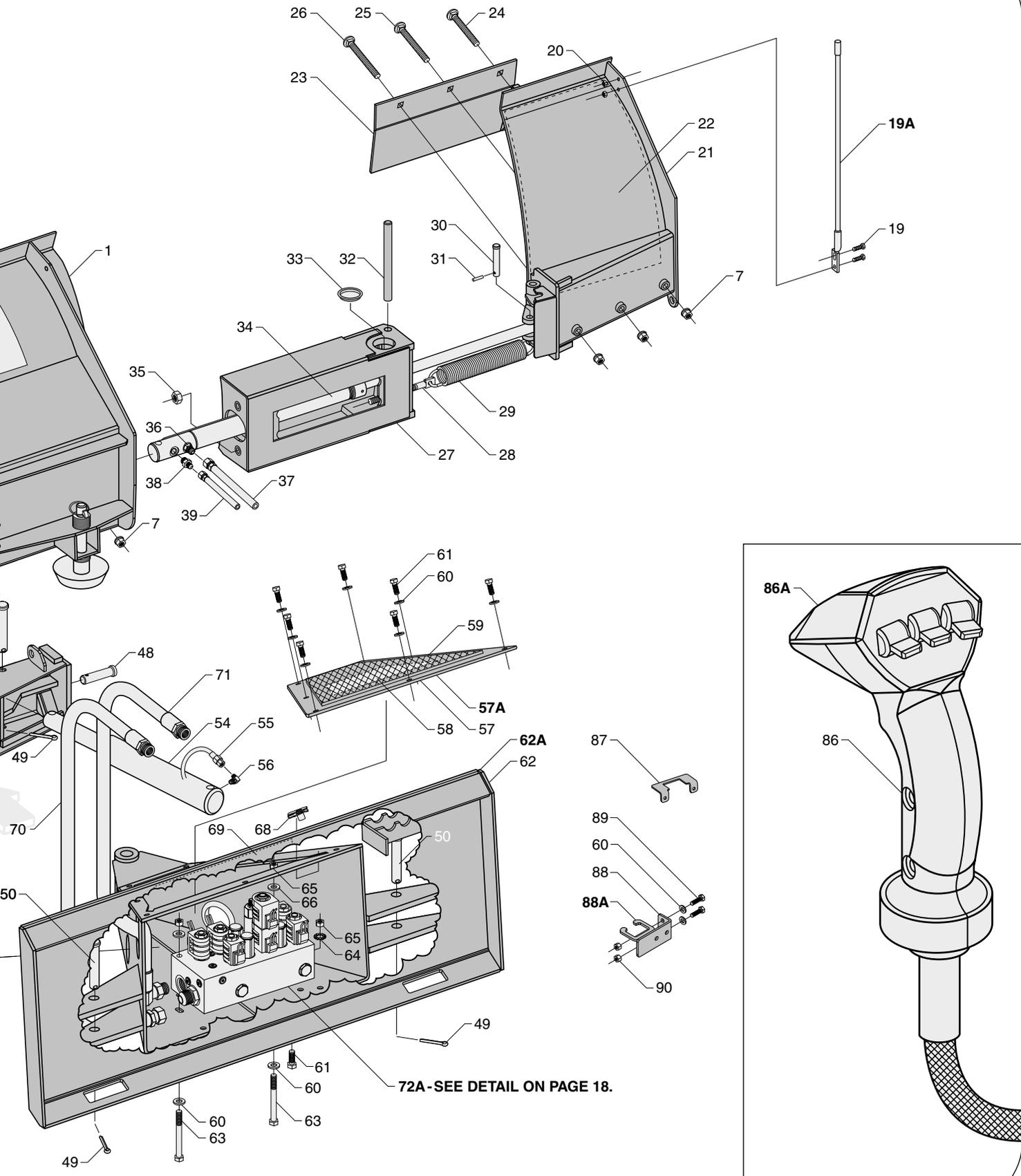


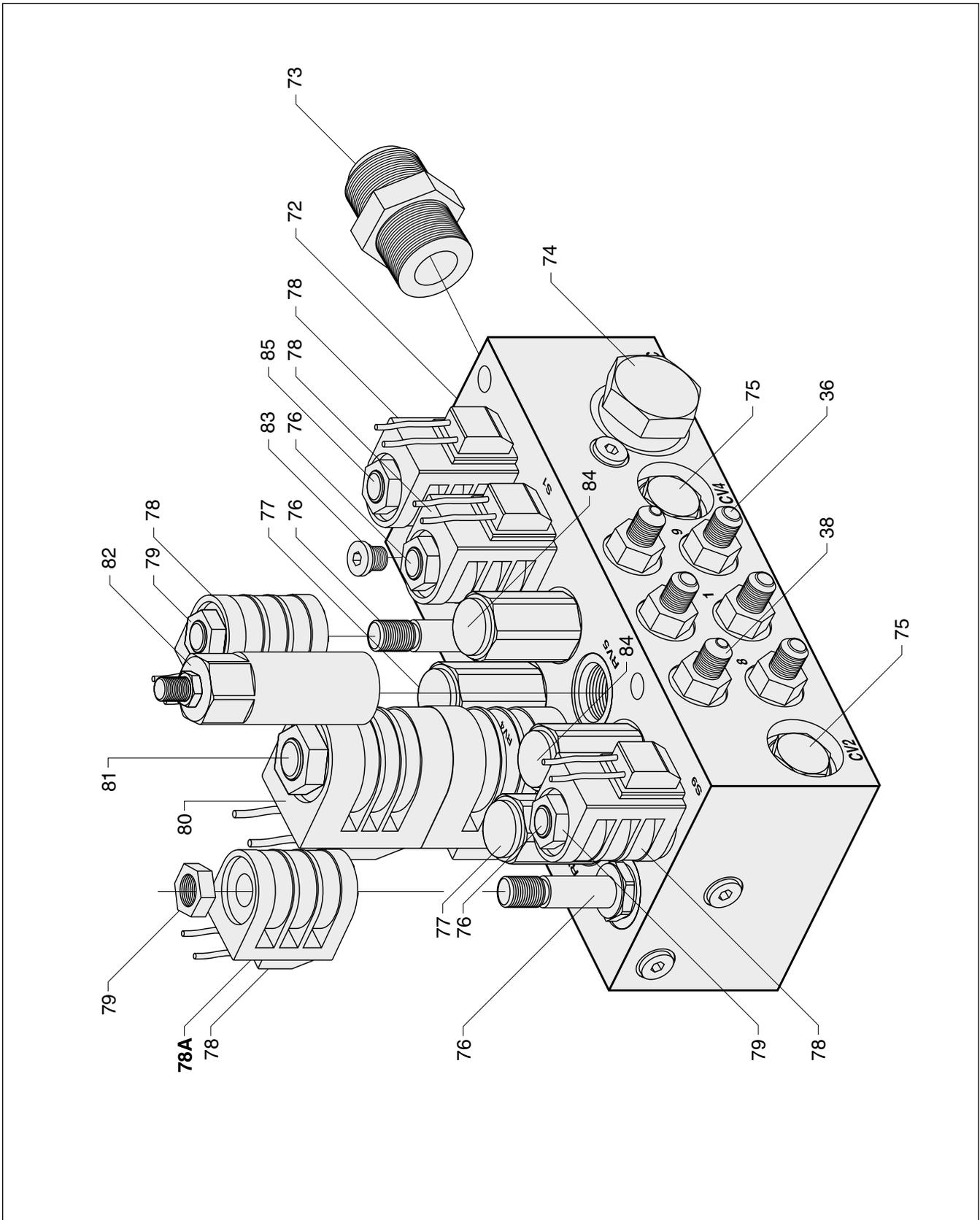
2003 Blizzard® Power Plow® Snowplow Assembly Schematic - Model 810SS

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 snowplow service parts or accessories or damage resulting from the use of these unauthorized items.

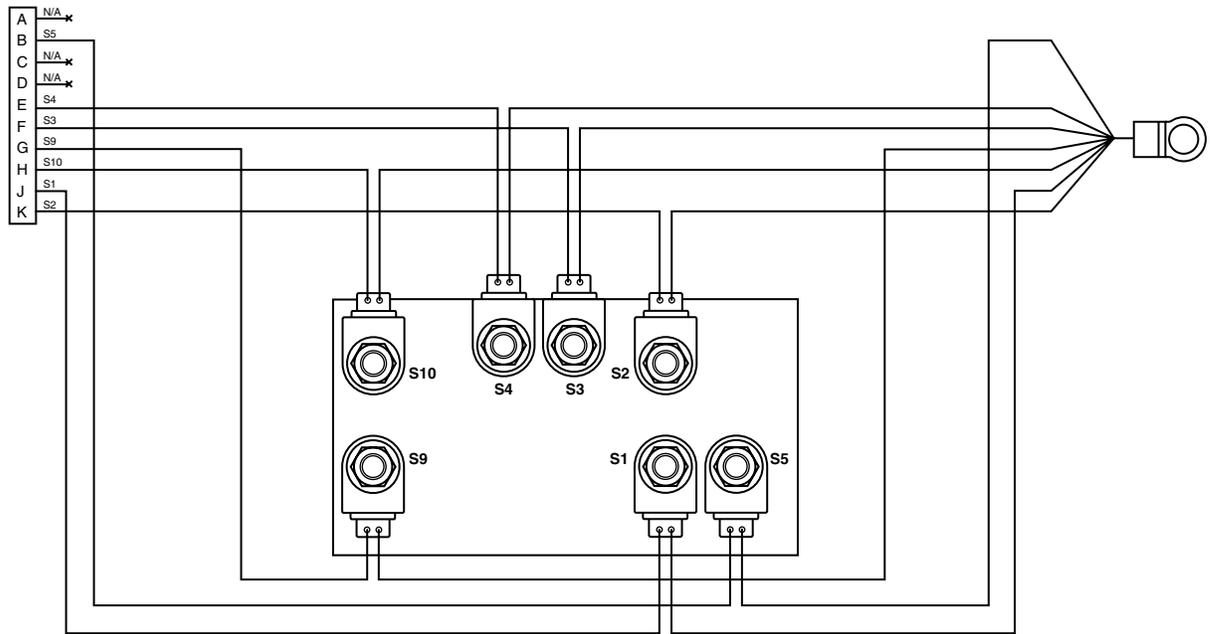
The Blizzard Power Plow is protected by U.S. Patents 5,638,618 and 5,899,007. Other patents pending.



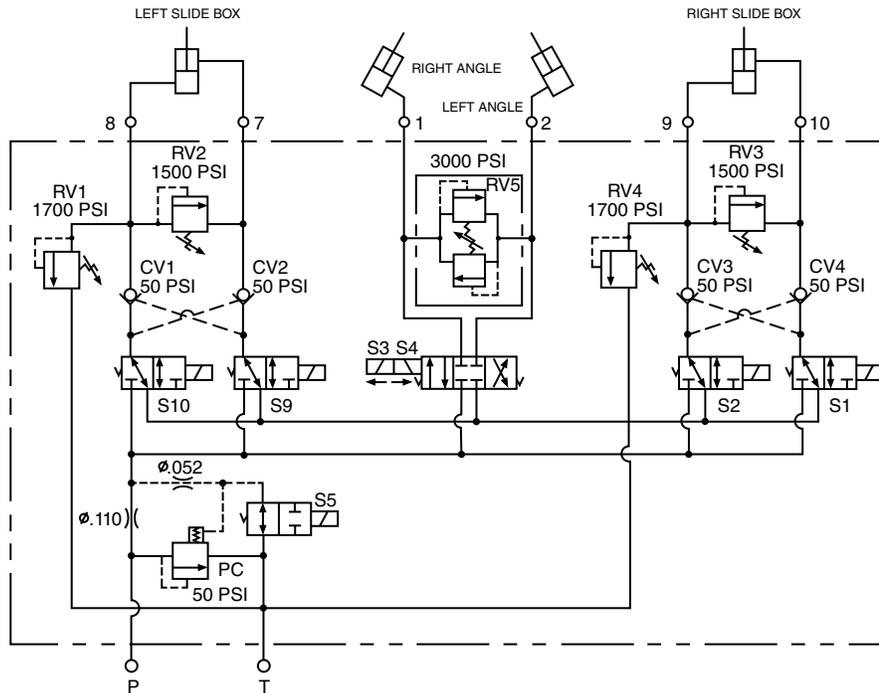




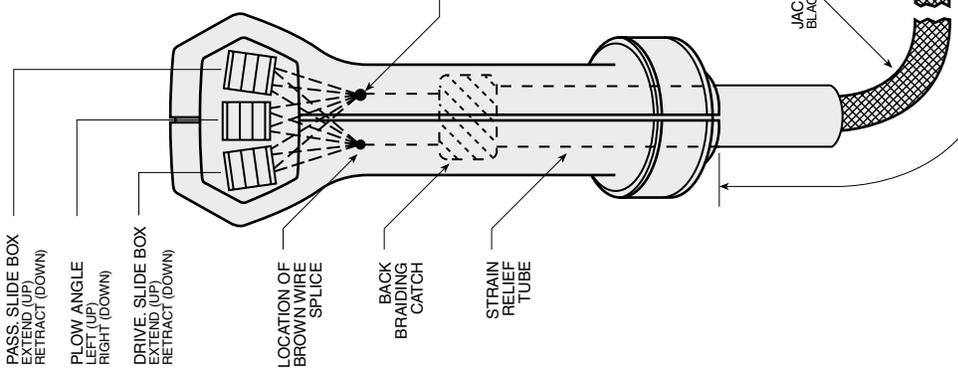
CONNECTS TO C3
SEE SCHEMATIC ON PAGE 24.



MODEL 810SS COIL HARNESS WIRE SCHEMATIC (2003)



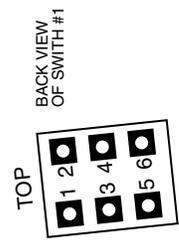
MODEL 810SS HYDRAULIC MANIFOLD SCHEMATIC (2003)



NOTE: NO NUMBERS ON SWITCH (USE THIS CHART TO FIND TOP)

PIN NO.	COLOR	AWG	LENGTH
1	BROWN	18	6"
2	RED/BLACK	18	84"
3	PINK/BLACK	18	6"
4	PINK/BLACK	18	6"
5	BROWN	18	6"
6	RED/WHITE	18	84"

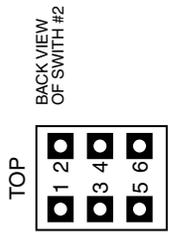
SWITCH #1



NOTE: NO NUMBERS ON SWITCH (USE THIS CHART TO FIND TOP)

PIN NO.	COLOR	AWG	LENGTH
1	BROWN	18	6"
2	GREEN	18	84"
3	PINK/BLACK	18	6"
4	PINK/BLACK	18	6"
5	BROWN	18	6"
6	BLUE	18	84"

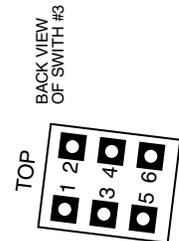
SWITCH #2



NOTE: NO NUMBERS ON SWITCH (USE THIS CHART TO FIND TOP)

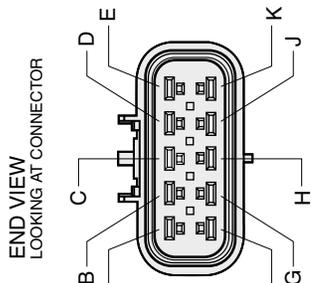
PIN NO.	COLOR	AWG	LENGTH
1	BROWN	18	6"
2	BLUE/BLACK	18	84"
3	PINK/BLACK	18	6"
4	PINK/BLACK	18	6"
5	BROWN	18	6"
6	BLUE/WHITE	18	84"

SWITCH #3



NOTE: ALL PINK/BLACK SPLICE TOGETHER & ALL BROWN SPLICE TOGETHER

C1 CONNECTS TO C2 ON PAGE 22.
 PLASTIC ELECTRIC CONNECTOR - MALE (P/N 62045)
 SILICONE RUBBER CABLE SEAL (16 AWG) - P/N 62096
 MALE TERMINAL (16-16 AWG) - P/N 62097

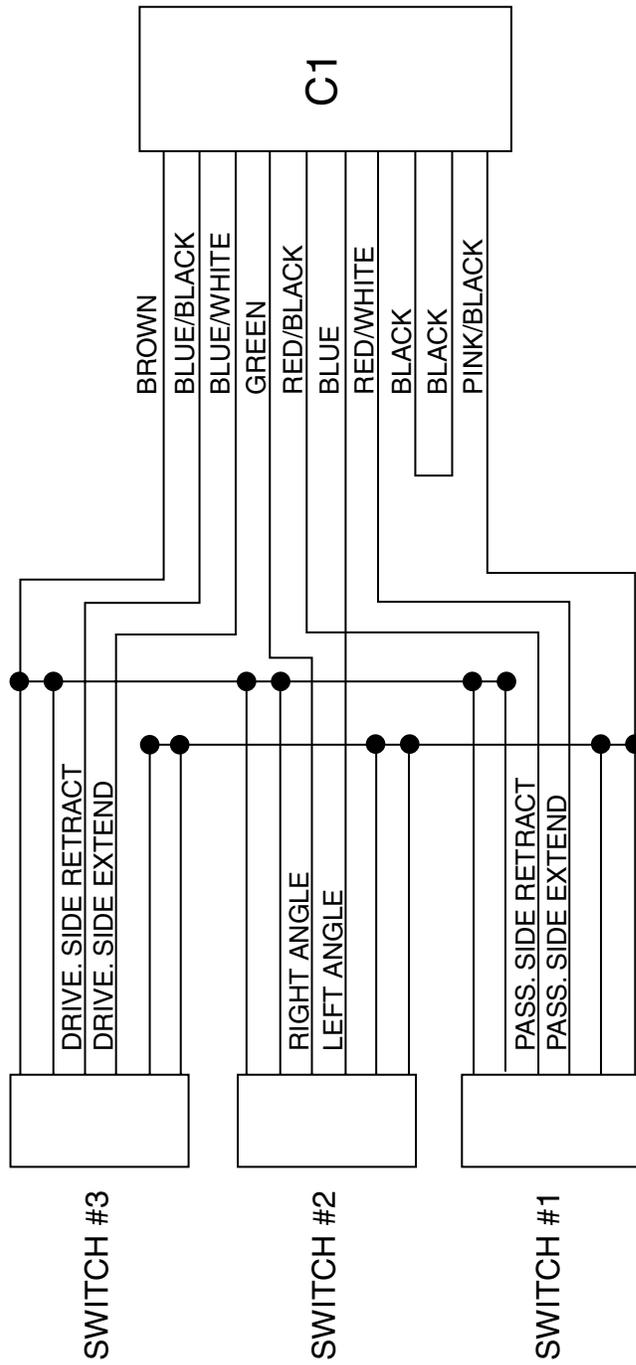


PACKARD GT 280 ELECTRIC CONNECTOR

PIN NO.	COLOR	FUNCTION	AWG
A	PINK/BLACK	POWER	18
B	BROWN	PUMP SOLENOID	18
C	BLACK	GROUND (JUMPER)	18
D	BLACK	GROUND (JUMPER)	18
E	GREEN	RIGHT ANGLE	18
F	GREEN	RIGHT ANGLE	18
G	BLUE/BLACK	DRIVE SLIDE BOX RET.	18
H	BLUE/WHITE	DRIVE SLIDE BOX EXT.	18
J	RED/BLACK	PASS. SLIDE BOX RET.	18
K	RED/WHITE	PASS. SLIDE BOX EXT.	18

810SS PISTOL GRIP CONTROL WIRE HARNESS (2003)
P/N 62082

NOT DRAWN TO SCALE
 UNLESS OTHERWISE SPECIFIED
 ALL DIMENSIONS IN INCHES

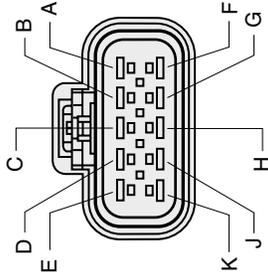


810SS PISTOL GRIP CONTROL WIRE SCHEMATIC (2003)

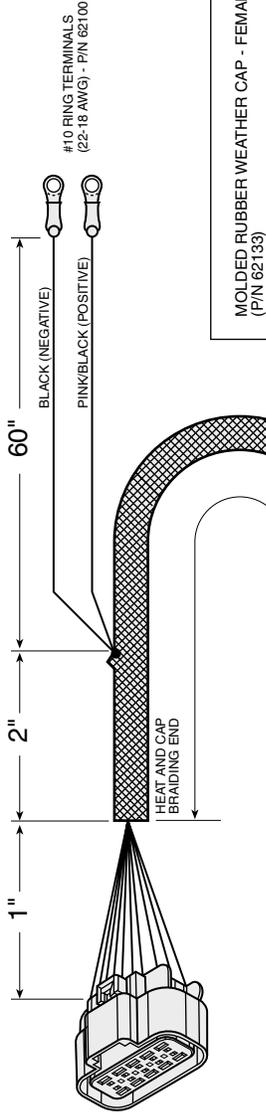
C2

CONNECTS TO C1 ON PAGE 20.
 PLASTIC ELECTRIC CONNECTOR - FEMALE (P/N 62046)
 SILICONE RUBBER CABLE SEAL (18 AWG) - P/N 62096
 FEMALE TERMINAL (18-16 AWG) - P/N 62093

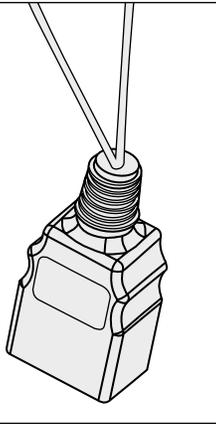
END VIEW
 LOOKING AT CONNECTOR



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



MOLDED RUBBER WEATHER CAP - FEMALE
 (P/N 62133)



JACKET MATERIAL
 BLACK NYLON BRAID

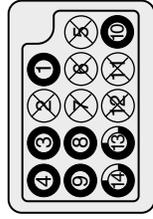
240"

1/2" REVERSE
 BRAIDING

M1

CONNECTS TO M2 ON PAGE 24.
 MOLDED RUBBER CONNECTOR

END VIEW
 LOOKING AT CONNECTOR

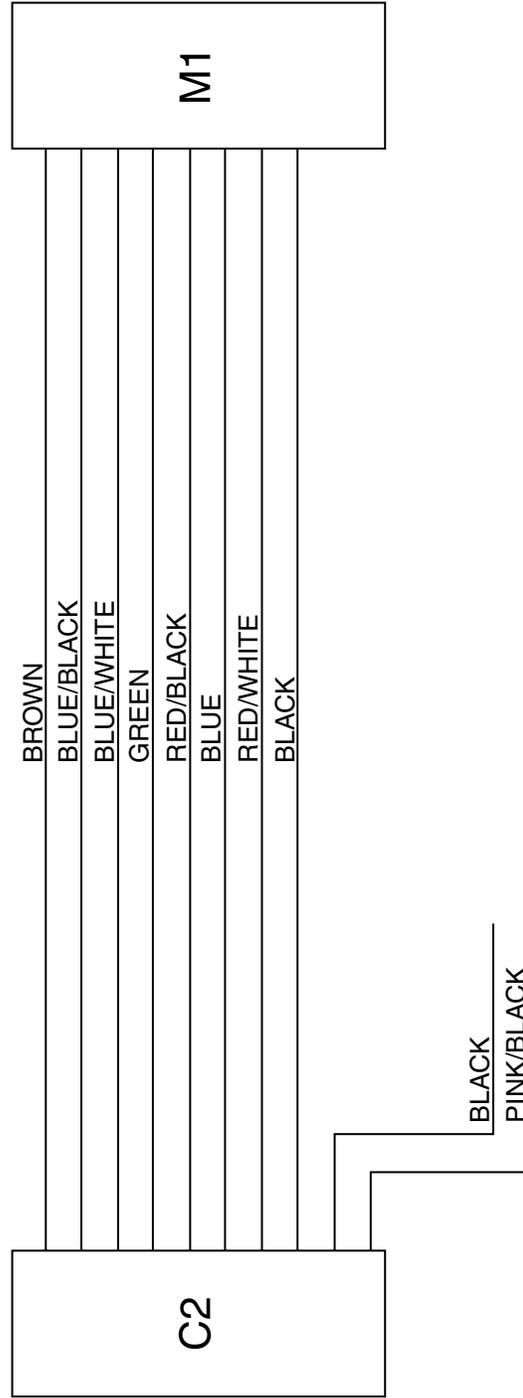


BLIZZARD PLUG (SQUARE)

PIN NO.	COLOR	FUNCTION	AWG
1	BLACK	GROUND	18
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	N/A	N/A	N/A
7	N/A	N/A	N/A
8	RED/BLACK	PASS, SIDE SLIDE BOX RET.	18
9	BLUE/BLACK	DRIVE, SIDE SLIDE BOX RET.	18
10	BROWN	PUMP SOLENOID	18
11	N/A	N/A	N/A
12	N/A	N/A	N/A
13	RED/WHITE	PASS, SIDE SLIDE BOX EXT.	18
14	BLUE/WHITE	DRIVE, SIDE SLIDE BOX EXT.	18

810SS WIRE HARNESS EXTENSION VEHICLE SIDE (2003) P/N 62132

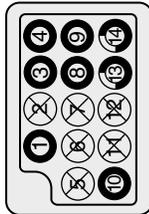
NOT DRAWN TO SCALE
 UNLESS OTHERWISE SPECIFIED
 ALL DIMENSIONS IN INCHES



810SS WIRE HARNESS EXTENSION (VEHICLE) WIRE SCHEMATIC (2003)

M2 CONNECTS TO M1 ON PAGE 22.
MOLDED RUBBER CONNECTOR

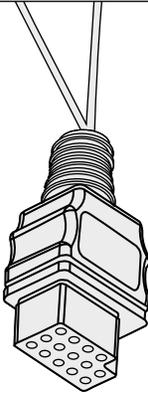
END VIEW
LOOKING AT CONNECTOR



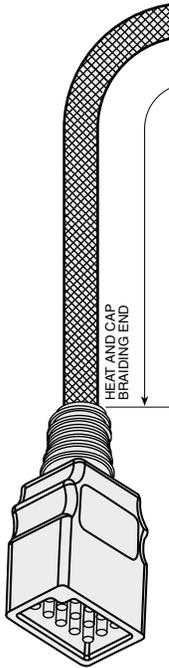
PIN NO.	COLOR	FUNCTION	AWG
1	BLACK	GROUND	18
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	GREEN	RIGHT ANGLE	18
5	BLUE	LEFT ANGLE	18
6	N/A	N/A	N/A
7	N/A	N/A	N/A
8	RED/BLACK	PASS. SIDE SLIDE BOX RET.	18
9	BLUE/BLACK	DRIVE SIDE SLIDE BOX RET.	18
10	BROWN	PUMP SOLENOID	18
11	N/A	N/A	N/A
12	N/A	N/A	N/A
13	RED/WHITE	PASS. SIDE SLIDE BOX EXT.	18
14	BLUE/WHITE	DRIVE SIDE SLIDE BOX EXT.	18

BLIZZARD PLUG (SQUARE)

MOLDED RUBBER WEATHER CAP - MALE
(P/N 62135)



HEAT AND CAP
BRAIDING END



JACKET MATERIAL
BLACK NYLON BRAID

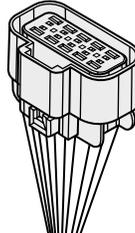
36"

BLACK
3/8" END RING TERMINAL
P/N 62072



C3

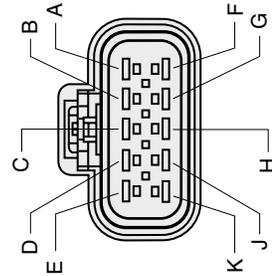
CONNECTS TO C4 ON PAGE 26.
PLASTIC ELECTRIC CONNECTOR -
FEMALE (P/N 62046)
SILICONE RUBBER CABLE SEAL (18 AWG) - P/N 62096
FEMALE TERMINAL (18-16 AWG) - P/N 62093



HEAT AND CAP
BRAIDING END

12"

END VIEW
LOOKING AT CONNECTOR

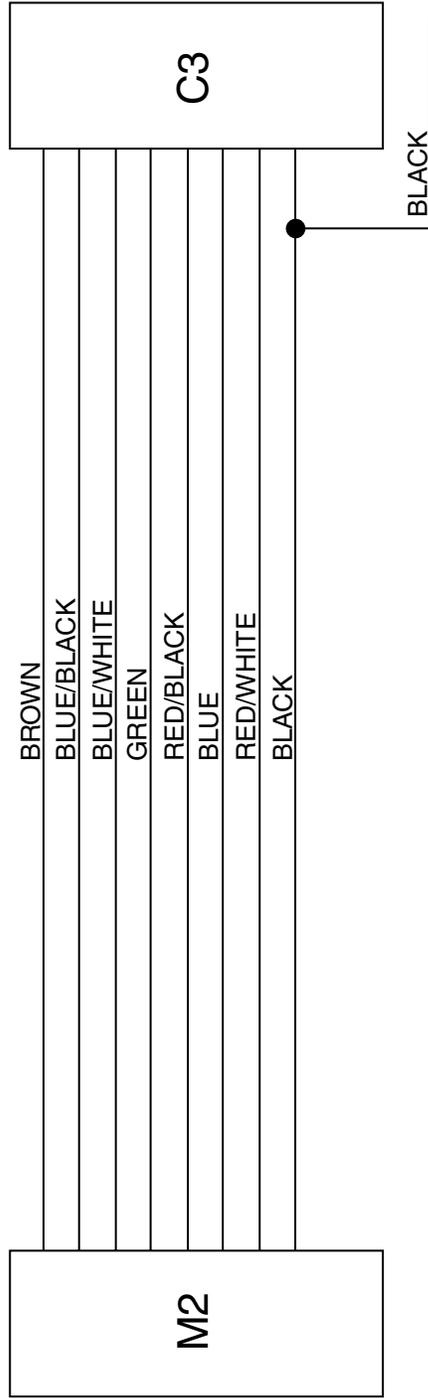


PIN NO.	COLOR	FUNCTION	AWG
A	N/A	N/A	N/A
B	BROWN	PUMP SOLENOID	18
C	N/A	N/A	N/A
D	BLACK	GROUND	18
E	GREEN	RIGHT ANGLE	18
F	BLUE	LEFT ANGLE	18
G	BLUE/BLACK	DRIVE SLIDE BOX RET.	18
H	BLUE/WHITE	DRIVE SLIDE BOX EXT.	18
J	RED/BLACK	PASS. SLIDE BOX RET.	18
K	RED/WHITE	PASS. SLIDE BOX EXT.	18

PACKARD GT 280 ELECTRIC CONNECTOR

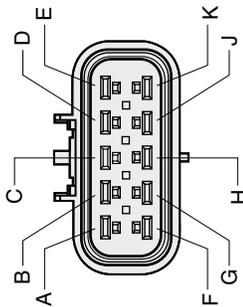
810SS WIRE HARNESS EXTENSION
PLOW SIDE (2003)
P/N 62134

NOT DRAWN TO SCALE
UNLESS OTHERWISE SPECIFIED

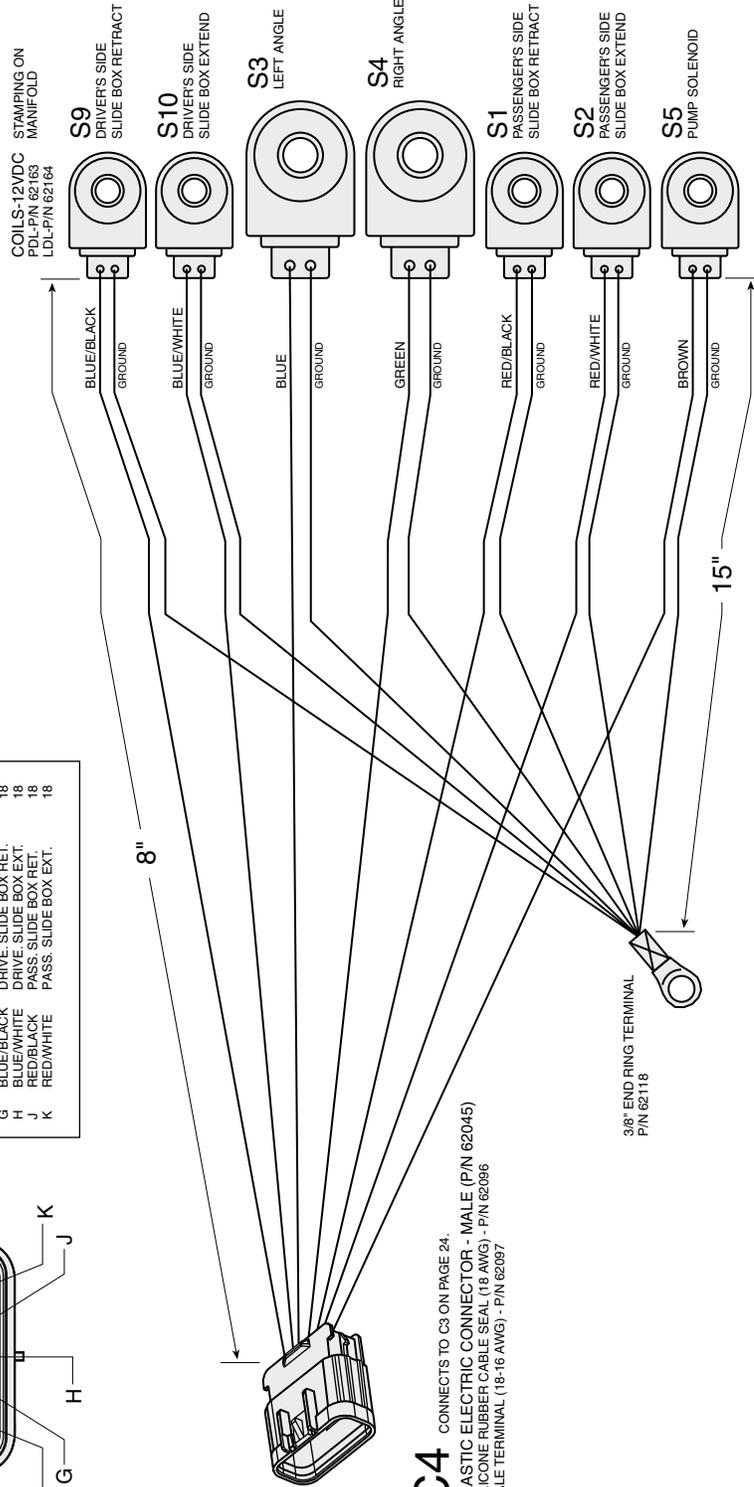


810SS WIRE HARNESS EXTENSION (PLOW) WIRE SCHEMATIC (2003)

END VIEW
LOOKING AT CONNECTOR



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

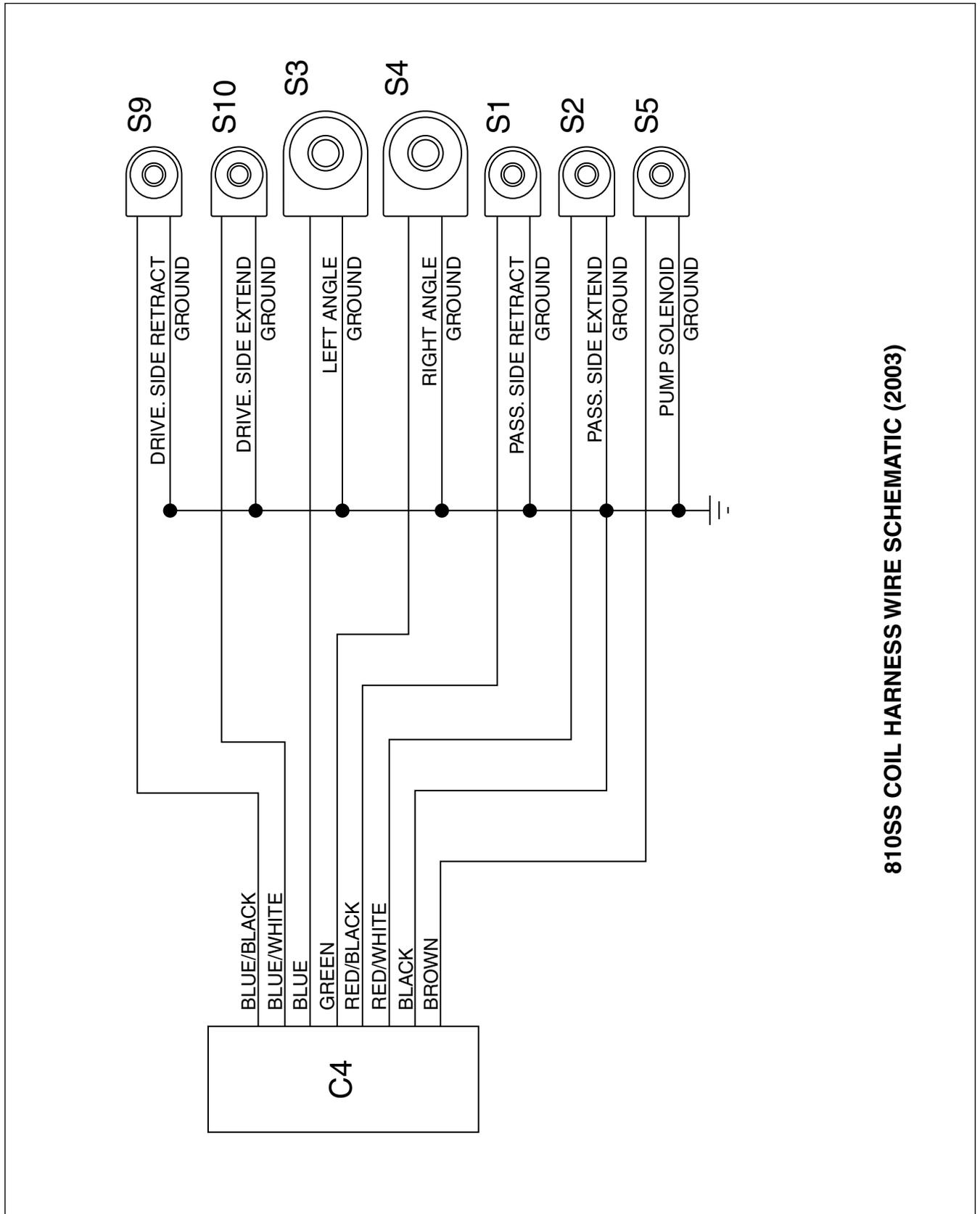


C4 CONNECTS TO C3 ON PAGE 24.
PLASTIC ELECTRIC CONNECTOR - MALE (P/N 62045)
SILICONE RUBBER CABLE SEAL (18 AWG) - P/N 62096
MALE TERMINAL (18-16 AWG) - P/N 62097

810SS COIL WIRE HARNESS (2003)

P/N 62161

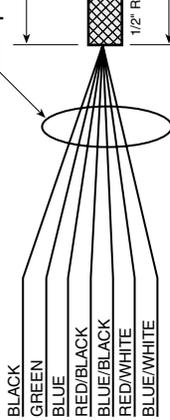
NOT DRAWN TO SCALE
UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS IN INCHES



810SS COIL HARNESS WIRE SCHEMATIC (2003)

M2

CONNECTS TO SKID STEER CONNECTOR

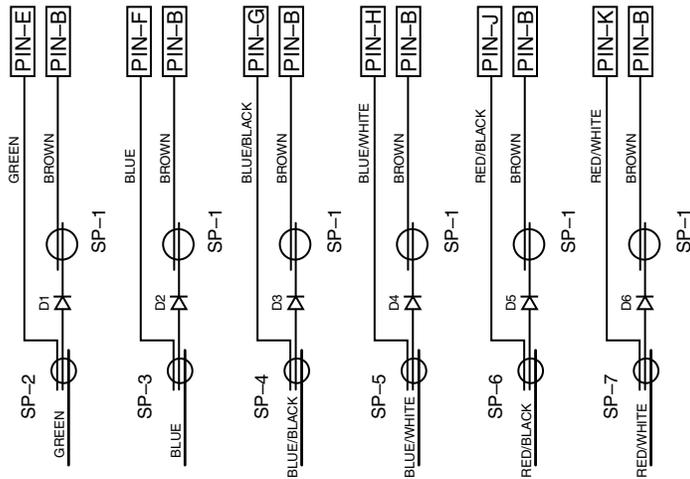
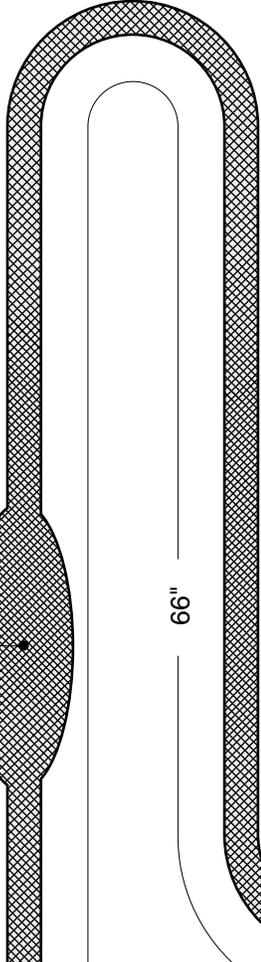


4"

8"

LOCATION OF DIODE (A6) CLUSTER

LOOM BRAID (1/2 LOOM UNDER BRAID)



2"

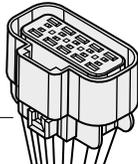
12"

1"

JACKET MATERIAL BLACK NYLON BRAID

HEAT AND CAP BRAIDING END

BLACK WIRE SPLICE



38" END RING TERMINAL P/N 62072

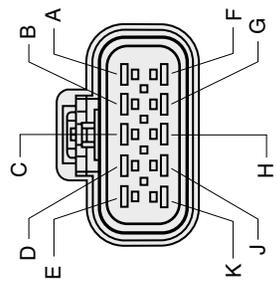
BLACK 36"

CONNECTS TO C4 ON PAGE 28.

C3

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

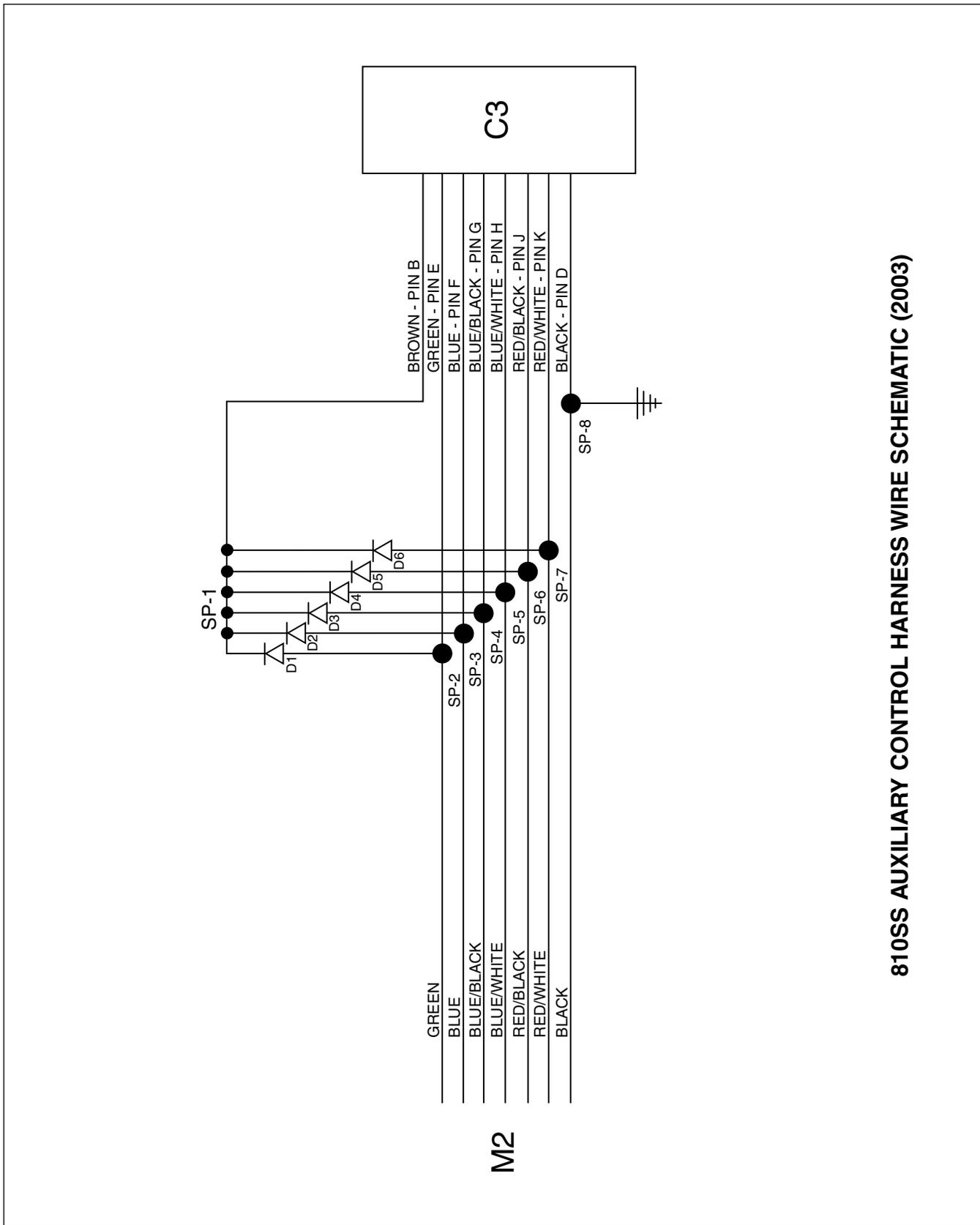
END VIEW
 LOOKING AT CONNECTOR



PIN NO.	COLOR	FUNCTION	AWG
A	N/A	N/A	N/A
B	BROWN	PUMP SOLENOID	18
C	N/A	N/A	N/A
D	BLACK	GROUND	18
E	GREEN	RIGHT ANGLE	18
F	BLUE	LEFT ANGLE	18
G	BLUE/BLACK	DRIVE, SLIDE BOX RET.	18
H	BLUE/WHITE	DRIVE, SLIDE BOX EXT.	18
J	RED/BLACK	PASS, SLIDE BOX RET.	18
K	RED/WHITE	PASS, SLIDE BOX EXT.	18

**810SS AUXILIARY CONTROL HARNESS (2003)
 WITH INTERNAL DIODES
 P/N 62162**

NOT DRAWN TO SCALE
 UNLESS OTHERWISE SPECIFIED
 ALL DIMENSIONS IN INCHES



810SS AUXILIARY CONTROL HARNESS WIRE SCHEMATIC (2003)

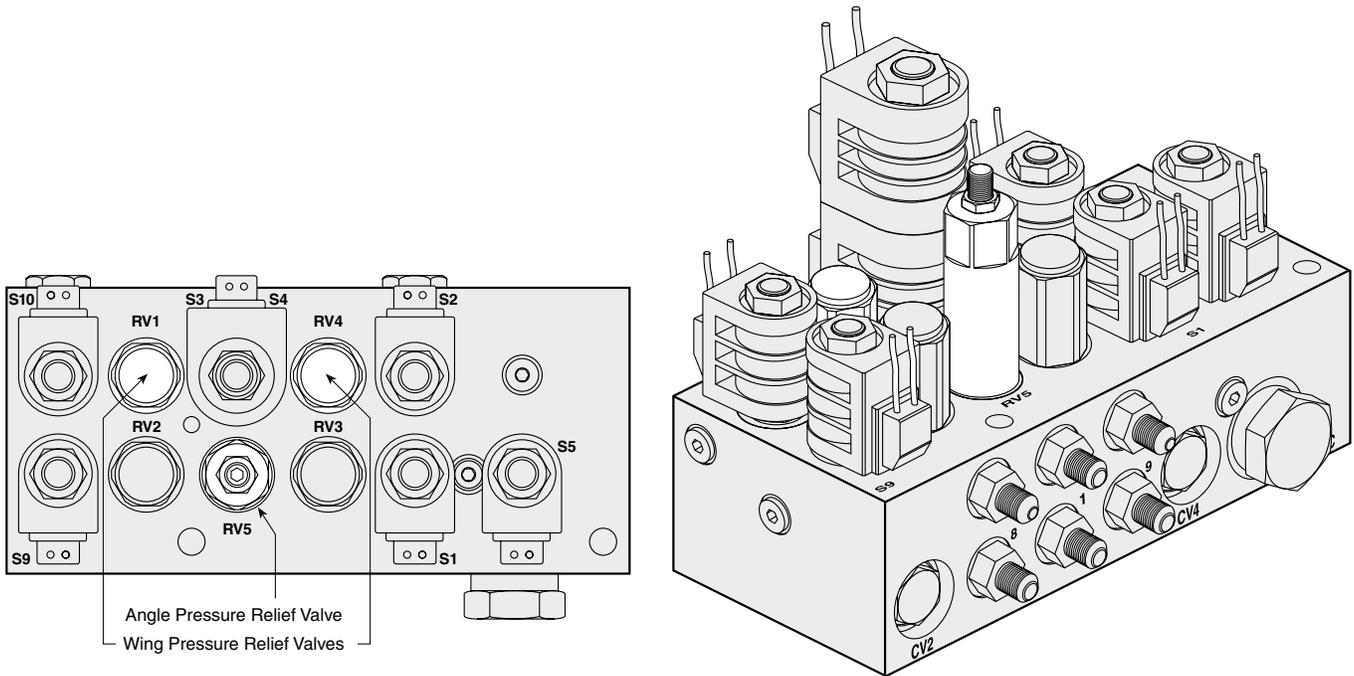
Troubleshooting Guide

Prior to diagnosing your Power Plow, verify that all connectors (rubber connectors, plastic electric connectors, ground and power wire terminals, coil wire 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.	S5 coil is not magnetizing.	S5 coil should magnetize with each function.
	Solenoid cartridge valve may be contaminated or damaged. A bent or over torqued 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 one at a time. Replace valve if necessary.
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 function simultaneously.	Diodes may be corroded or damaged.	Clean diodes 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 or coils and wiring are incorrect.	Review the Hydraulic Valve & Hose Port Identification Guide under the A-frame cover for proper port locations and/or place respective coils over correct valves.
Both wings extend when the skid steer hydraulics are turned on.	Pressure (P) and tank (T) hoses are installed in the wrong position on the skid steer.	Review the skid steer operation manual to determine the pressure and tank connections.
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 (cylindrical connector only).
Wing will not stay angled when plowing.	The wing pressure relief valve is contaminated.	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 1700 PSI. Replace if less than 1500-1700 PSI.
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.	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 S9 & S10 coils (passenger's side slide box retract and extend) and S1 & S2 (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 magnetization is present, review the next step.

Problem	Probable Cause(s)	Suggested Remedy
Wing will not move (continued).	Cartridge valve may be contaminated or damaged. A bent or over torqued 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 one at a time. 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.





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 snowplow 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. This includes, but is not limited to, corrosion of any electrical components.
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 snowplow. 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.



95 AIRPARK BOULEVARD ■ CALUMET, MICHIGAN 49913 ■ (906) 482-5555

1029-7-99 REV 8/01



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 snowplow 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. This includes, but is not limited to, corrosion of any electrical components.
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 snowplow. 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.



95 AIRPARK BOULEVARD ■ CALUMET, MICHIGAN 49913 ■ [906] 482-5555

1030-7-99 REV 8/01

MODEL 810SS



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www.blizzardplows.com

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