

89354, 89355

Pusher Plow Harness and Auxiliary Hose Kit

Parts List and Installation Instructions

⚠ CAUTION

Read this document before installing the tractor harness kit.

⚠ CAUTION

See your sales outlet/website for specific vehicle application recommendations before installation. The online selection system has specific vehicle and snowplow requirements.

PARTS LIST

Pusher Plow Electrical Harness Kits					
Part	Qty	Description	Part	Qty	Description
89355	1	Universal Pusher Plow Harness Kit	89347	1	Loader Hose Kit
89354*	1	John Deere Pusher Plow Harness Kit	57893	1	1/2 Hydraulic Coupler Kit
89346	1	Skid Steer Hose Kit			
89355 Universal Pusher Plow Harness Kit					
89352	1	Equipment-Side Harness Kit	89353	1	Pusher-Side Harness Kit
89354* John Deere Pusher Plow Harness Kit					
30955	1	John Deere Pusher Plow Harness	87868	1	Bolt Bag – Hose Holder
89348	1	Hose Holder			
89346 Skid Steer Hose Kit					
57899	2	Hose, 3/8 x 84 F JIC			
89347 Loader Hose Kit					
85389	2	Hose, 3/8 x 120 F JIC			
57893 1/2 Hydraulic Coupler Kit					
57592	1	1/2 Coupler Set, M F			
89352 Equipment-Side Harness Kit					
30805	1	5A Fuse Holder	30995	1	Three-Way Rocker Switch
30875	1	Equipment-Side Harness			
89353 Pusher-Side Harness Kit					
30855	1	Pusher Plow-Side Harness	87868	1	Bolt Bag – Hose Holder
89348	1	Hose Holder			
87868 Bolt Bag – Hose Holder					
89351	3	Grommet, Hose	91331	2	1/4-20 Hex Locknut GB
90612	2	1/4-20 x 1 Hex Cap Screw G5			
M = Male		F = Female		G = Grade	

* For John Deere skid steer applications.

SAFETY DEFINITIONS

WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.

CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTE: Indicates a situation or action that can lead to damage to your snowplow and equipment or other property. Other useful information can also be described.

FUSES

The snowplow electrical and hydraulic systems contain automotive-style fuses. If a problem should occur and fuse replacement is necessary, the replacement fuse must be of the same type and amperage rating as the original. Installing a fuse with a higher rating can damage the system and could start a fire. Snowplow Fuse Replacement, including fuse ratings and locations, is located in the Maintenance section of the snowplow Owner's Manual.

BATTERY SAFETY

CAUTION









Batteries normally produce explosive gases, which can cause personal injury. Therefore, do not allow flames, sparks, or lit tobacco to come near the battery. When charging or working near a battery, always cover your face and protect your eyes, and also provide ventilation.

- Batteries contain sulfuric acid, which burns skin, eyes, and clothing.
- Disconnect the battery before removing or replacing any electrical components.

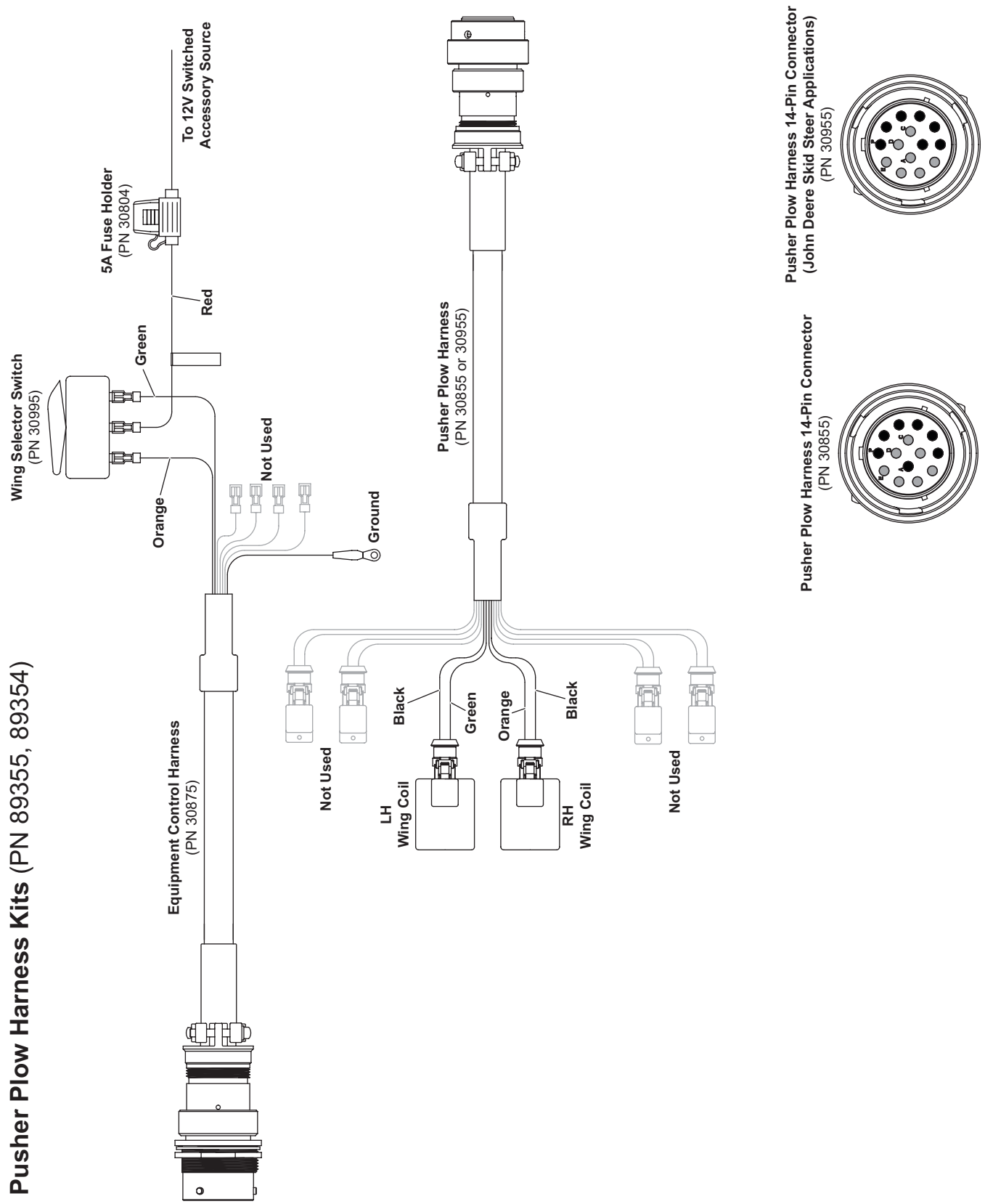
TORQUE CHART

CAUTION

Read instructions before assembling. Fasteners should be finger tight until instructed to tighten according to the torque chart. Use standard methods and practices when attaching snowplow, including proper personal protective safety equipment.

Recommended Fastener Torque Chart					
Inch Fasteners Grade 5 and Grade 8					
Size	Torque (ft-lb)		Size	Torque (ft-lb)	
	 Grade 5	 Grade 8		 Grade 5	 Grade 8
1/4-20	8.4	11.9	9/16-12	109	154
1/4-28	9.7	13.7	9/16-18	121	171
5/16-18	17.4	24.6	5/8-11	150	212
5/16-24	19.2	27.3	5/8-18	170	240
3/8-16	30.8	43.6	3/4-10	269	376
3/8-24	35.0	49.4	3/4-16	297	420
7/16-14	49.4	69.8	7/8-9	429	606
7/16-20	55.2	77.9	7/8-14	474	669
1/2-13	75.3	106.4	1-8	644	909
1/2-20	85.0	120.0	1-12	704	995
Metric Fasteners Class 8.8 and 10.9					
Size	Torque (ft-lb)		Size	Torque (ft-lb)	
	 Class 8.8	 Class 10.9		 Class 8.8	 Class 10.9
M6 x 1.00	7.7	11.1	M20 x 2.50	325	450
M8 x 1.25	19.5	26.9	M22 x 2.50	428	613
M10 x 1.50	38.5	53.3	M24 x 3.00	562	778
M12 x 1.75	67	93	M27 x 3.00	796	1139
M14 x 2.00	107	148	M30 x 3.50	1117	1545
M16 x 2.00	167	231	M33 x 3.50	1468	2101
M18 x 2.50	222	318	M36 x 4.00	1952	2701
These torque values apply to fasteners except those noted in the instructions.					

PUSHER FLOW CONTROL SYSTEM DIAGRAM



INSTALLATION INSTRUCTIONS

For John Deere skid steer applications, skip ahead to John Deere Skid Steer Installation Instructions on page 6. For all other applications, continue with Fuse Holder Installation below.

⚠ CAUTION

Batteries normally produce explosive gases, which can cause personal injury. Therefore, do not allow flames, sparks, or lit tobacco to come near the battery. When charging or working near a battery, always cover your face and protect your eyes, and also provide ventilation.

- Batteries contain sulfuric acid, which burns skin, eyes, and clothing.
- Disconnect the battery before removing or replacing any electrical components.

Fuse Holder Installation

NOTE: Fuse holder and fuse are to be connected to a 12V POSITIVE (+) switched accessory circuit.

1. Turn OFF the equipment ignition.
2. Place a 5A fuse in the fuse holder.
3. Locate a terminal in the in-cab fuse box that provides 12V switched accessory power.
4. Disconnect both the NEGATIVE (–) and the POSITIVE (+) battery cables.
5. Connect one end of the wire on the 5A fuse holder to the 12V switched accessory power source.
6. Locate an open selector switch location.

NOTE: Use cable ties to secure cable assemblies and control harnesses away from any sharp edges and hot or moving parts.

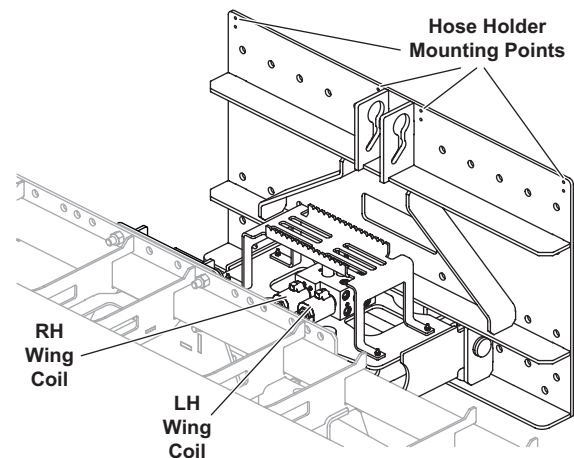
7. Run the opposite fuse holder wire to the open selector switch location.

Pusher Plow Harness Installation

⚠ CAUTION

Before installing self-drilling screws or drilling mounting holes, check the selected mounting area for any wires, hoses, or other obstructions.

1. Locate an existing opening into the cab large enough to pass the equipment harness through. If required, drill a hole in a convenient location away from any sharp edges and hot or moving parts.
2. Install the harness holder to the mount attachment plate with two 1/4" cap screws and two 1/4" lock nuts through one set of the existing attachment plate holes.



3. Install the supplied grommets into the harness holder holes.
4. Thread the pusher plow harness through one of the harness holder grommets and route the coil connectors to the pusher plow hydraulic unit.
5. Locate the coil connector with the orange and black wires. Connect to the LH wing coil.
6. Locate the coil connector with the green and black wires. Connect to the RH wing coil.
7. Cable tie the plow harness to the coupler, avoiding sharp edges and hot or moving parts.
8. Route any additional plow harness length to the equipment's arm and cable tie it to the arm. Avoid sharp edges and hot or moving parts.

Equipment Harness Installation

1. Connect the equipment harness to the plow harness with the 14-pin connector.
2. Route the equipment harness along the arm, securing it clear of sharp edges and hot or moving parts, to the cab opening identified in Step 2 of the Pusher Plow Harness Installation section on page 5.
3. Connect the eyelet on the black wire to a known chassis ground location.
4. Route the green and orange wires of the equipment harness to the selector switch located in the Fuse Holder Installation section on page 5.
5. Connect the green wire of the equipment harness to one outer end terminal of the selector switch.
6. Connect the orange wire of the equipment harness to the opposite outer end terminal of the selector switch.
7. Connect the red fuse holder wire to the center terminal of the selector switch.
8. Snap the selector switch into place.
9. Reconnect the POSITIVE (+) and the NEGATIVE (-) battery cables.

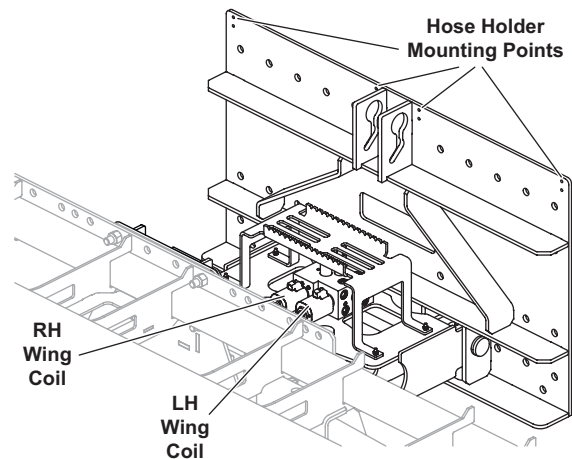
JOHN DEERE SKID STEER INSTALLATION INSTRUCTIONS

⚠ CAUTION

Before installing self-drilling screws or drilling mounting holes, check the selected mounting area for any wires, hoses, or other obstructions.

Pusher Plow Harness Installation

1. Install the harness holder to the mount attachment plate with two 1/4" cap screws and two 1/4" locknuts through one set of the existing attachment plate holes.

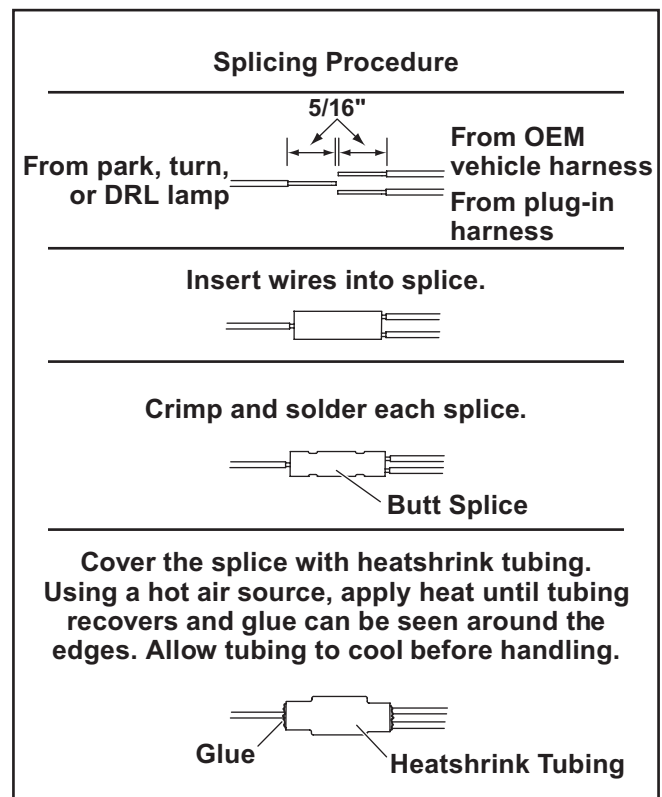


2. Install the supplied grommets into the harness holder holes.
3. Thread the pusher plow harness through one of the harness holder grommets and route the coil connectors to the pusher plow hydraulic unit.
4. Locate the coil connector with the orange and black wires. Connect to the LH wing coil.
5. Locate the coil connector with the green and black wires. Connect to the RH wing coil.
6. Connect the pusher plow harness 14-pin connector to the equipment 14-pin connector.
7. Cable tie the plow harness to the coupler, avoiding sharp edges and hot or moving parts.
8. Route any additional plow harness length to the equipment's arm and cable tie clear of sharp edges and hot or moving parts.

RECOMMENDED SPLICING PROCEDURE

1. Locate wire to be spliced into.
2. Cut wire at least 1-1/2" from any other splice, connector, or terminal. If wires are covered by tubing or braid, remove enough of it to achieve the minimum clearance required.
3. Strip away 5/16" of insulation from the ends of the wires to be spliced.
4. Slide two wires into one end of the supplied parallel splice.
5. Place a piece of heatshrink tubing (3/16" x 1-1/4" long) over the remaining wire to be spliced. Cut tubing into 1-1/4" lengths if required.
6. Insert the wire into the open end of the splice and crimp using an appropriate crimp tool. One or two crimps may be necessary to ensure a good connection. No wire strands should be visible outside of the splice.
7. Preheat a soldering tool for at least one minute to help promote even solder flow.
8. Apply heat to the splice. Avoid heating too close to the insulation. Apply solder to the wires. Use just enough solder to produce an even flow through the splice. **Use rosin core solder ONLY. Do not use acid core solder.**
9. Check the circuits for continuity.
10. Cover the splice with heatshrink tubing. The tubing should extend beyond the splice on both sides.
11. Using a hot air source, starting in the center and working out to either side, apply heat until the tubing recovers and glue can be seen around the edges. Allow the tubing to cool before handling.

NOTE: The splices supplied will accommodate 18-gauge wires as shown. For larger gauge wires, cut the wire, strip the ends 3/8" to 1/2", and twist together. Apply solder to the splice and cover with heatshrink tubing.



NOTE: Avoid using an excessive amount of solder, as it can result in wicking. Wicking occurs when solder travels up the wire core. This may cause the wire to become stiff or brittle, which could lead to a broken or open circuit.

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