



BOSS PRODUCTS  
A Division of Northern Star Industries, Inc.  
P.O. Box 787 Iron Mountain MI 49801-0787  
www.bossplow.com

# SmartHitch to SmartHitch 2 Electrical Adapter Kits

MSC04758 Control Harness Conversion Kit, Vehicle Side

MSC04759 Control Harness Conversion Kit, Plow Side

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**THROUGH IT ALL**

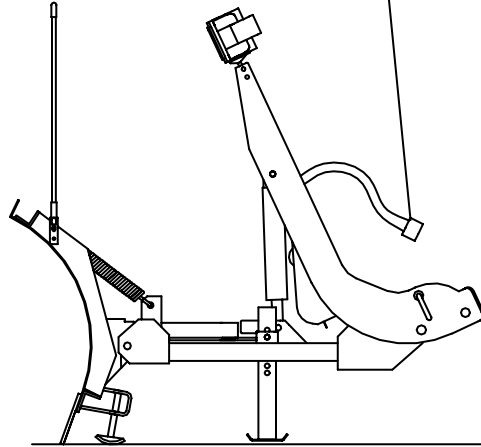
MSC04755-5

**Application Information**

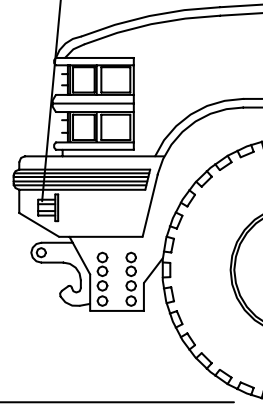
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The following kits are intended to be used on plows and trucks where one of the following conditions exist:

**Plow Has 13 Pin Connector**



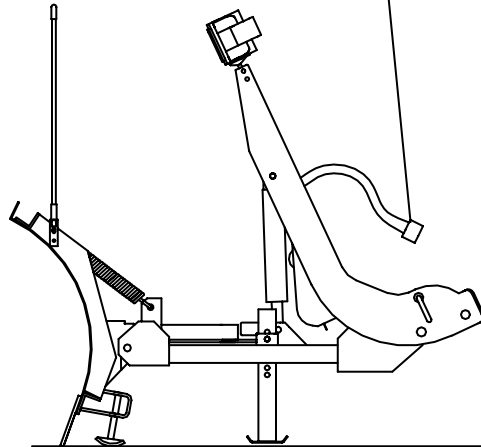
**Truck Has 11 Hole Connector**



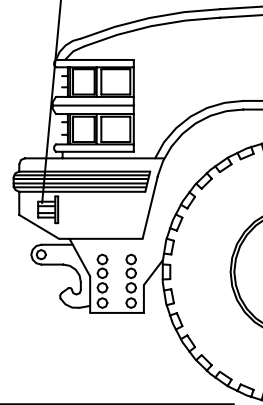
You need  
MSC04758 Control Harness Conversion Kit, Vehicle Side

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**Plow Has 11 Pin Connector**

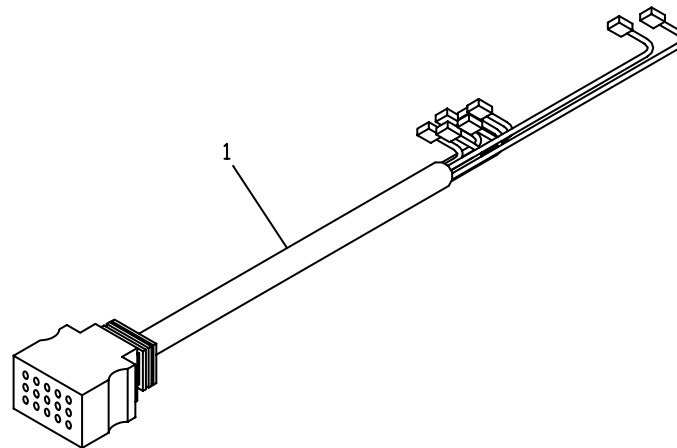


**Truck Has 15 Hole Connector**



You need  
MSC04759 Control Harness Conversion Kit, Plow Side

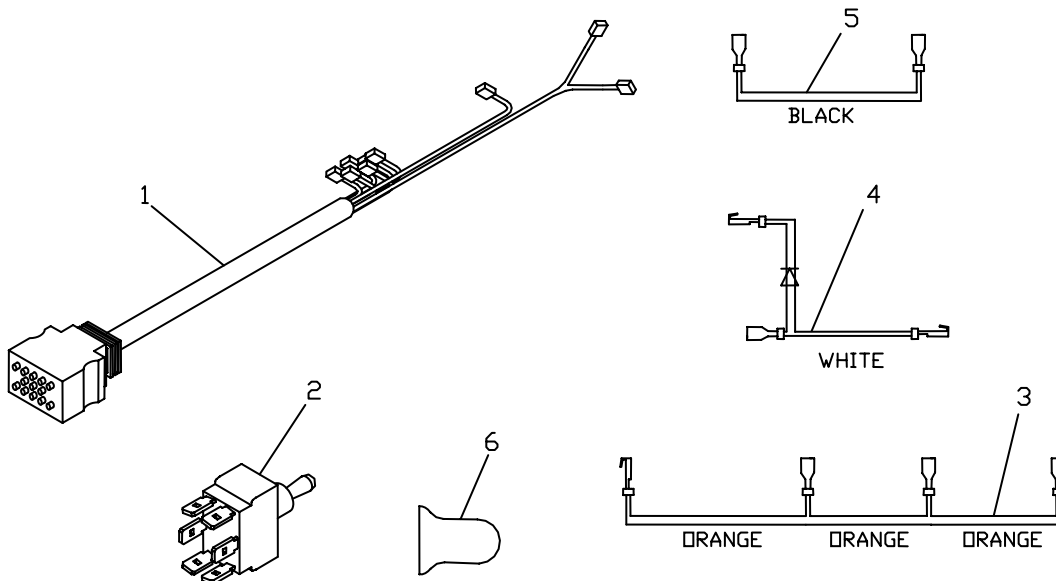
## Parts Breakdown



**Figure 1.** MSC04758 Control Harness Conversion Kit, Truck Side

G10177

REF NO.	DESCRIPTION	PART NUMBER
1	Control Harness Conversion Kit, Vehicle Side	MSC04758



**Figure 2.** MSC04759 Control Harness Conversion Kit, Plow Side

G10178

REF NO.	DESCRIPTION	PART NUMBER
	Control Harness Conversion Kit, Plow Side	MSC04759
Includes:		
1	Connector Pigtail w/Extension, 13 Pin, Plow Side	MSC04757
2	Switch, SmartHitch 2 Toggle	MSC04671
3	Wiring Harness, SmartHitch 2 (Orange)	MSC04672
4	Wiring Harness, Power Attach Jumper2 w/ Diode, SmartHitch 2 (White)	MSC09867
5	Wiring Harness, Power Attach Jumper1 SmartHitch 2 (Black)	MSC09866
6	Switch Boot, SmartHitch 2	MSC04238

## Truck 11 Pin Connector to 13 Pin Installation Procedure

### WARNING!

Before starting any Electrical Wiring Procedure make sure that the engine is not running and that the engine has had sufficient time to cool down. Failure to do so may result in serious bodily injury or death.

### WARNING!

Before starting any Electrical Wiring Procedure make sure to disconnect the battery. Failure to do so may result in serious bodily injury or death.

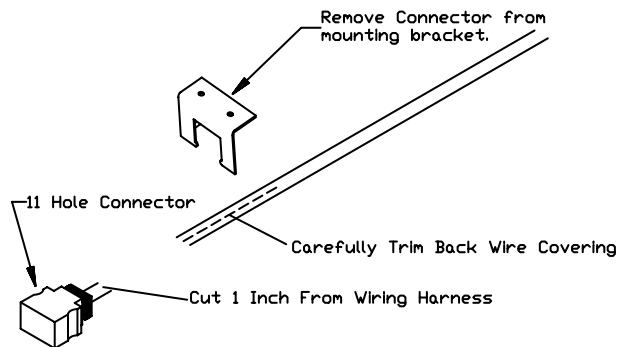


Figure 3. Truck Wiring Harness Connector G10168

- 1) Remove the wiring harness plug from the wiring harness mounting bracket.
- 2) Position the wiring harness plug end so that six inches of wiring is exposed beyond the bumper or grill.
- 3) Cut the Black Connector (11 holes) from the yellow/black wiring harness. Cut one inch behind the molded rubber connector. Completely cut through all eleven wires.
- 4) Carefully trim the yellow/black wiring covering back 5 inches from your previous cut.

Connector	Wiring Harness	Trim Length
Violet	Violet	0"
Yellow	Yellow	0"
Pink	Pink	0"
Blue/Yellow	Gray/Black	0"
White/Yellow (See Step 10)	Solenoid Ground (Small Stud) (See Step 10)	N/A
Red/Yellow	Gray	0"
Orange	Orange	1"
White	White	1"
Red	Red	1"
Green	Green	1"
Blue	Blue	1"
Red/Black	Red/Black	1"
White/Black (See Step 9)	Solenoid 12V+ (Small Stud) (See Step 9)	N/A

Table 1. Truck Update Wiring Connections

- 5) Trim the Truck Side Wiring Harness wires (the wires that were cut in step 4.) as indicated in Table 1.

Note: Offsetting half the wires by one inch is necessary to make the outer shrink wrap fit properly.

- 6) Match the wire colors from Connector Pigtail MSC04756 to the Wiring Harness as shown in Table 1.
- 7) Use the Butt-Splice connector supplied on the end of each wire to connect the two Wiring Harnesses.

### WARNING!

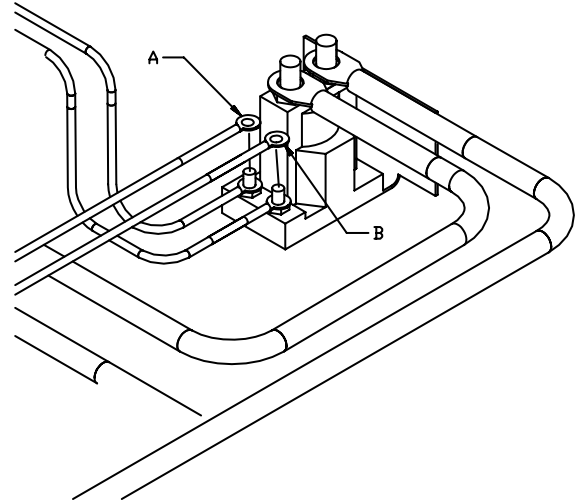
Use caution when applying heat to the wiring harness. Failure to use caution when applying heat can result in serious bodily injury.

- 8) Heat each individual Butt-Splice connector to seal properly.

Note: Do NOT heat shrink all eleven wires together at this time.

## SmartHitch 2 Truck Side Installation Procedure

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**Figure 4.** Solenoid Ground and 12V+ Connection

- 9) Attach the **White/Black** (A) wire to the solenoid 12V+ lower stud. Connect White/Black to White/Black – stud position does not matter.
- 10) Attach the **White/Yellow** (B) wire to the solenoid ground lower stud. Connect White/Yellow to Black – stud position does not matter.
- 11) Secure the newly installed wires. Make sure the wires are clear from all moving objects and clear of all hot parts.
- 12) Check all functions of the plow for proper operation.
- 13) Slide the large shrink wrap tube over all 11 connections. Heat and shrink.
- 14) Install the large black connector into the bumper mounting bracket.

## Plow 11 Hole Connector to 15 Hole Connector Installation Procedure

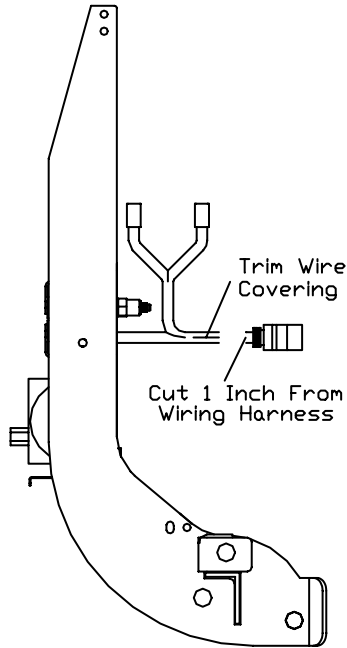


Figure 5. Plow Side Connector Plug G10170

- 1) Position the wiring harness plug end so that six inches of wiring is exposed beyond the plow light tower.
- 2) Cut the Black Connector (11 pins) from the yellow/black wiring harness. Cut one inch behind the molded rubber connector. Completely cut through all eleven wires.
- 3) Carefully trim the yellow/black wiring covering back 5 inches from your previous cut.

Adapter Plug	Plow Wiring Harness	Trim Length
Violet	Violet	1"
Yellow	Yellow	1"
Pink	Pink	1"
Blue/Yellow	Gray/Black	1"
White/Yellow (See Step 15)	Headlight Ground (See Step 15)	N/A
Red/Yellow	Gray	1"
Orange	Orange	0"
White	White	0"
Red	Red	0"
Green	Green	0"
Blue	Blue	0"
Red/Black	Red/Black	0"
White/Black (See Step 7)	Switch (See Step 7)	N/A

Table 2. Plow Update Wiring Connections

- 4) Trim the Plow Side Wiring Harness wires (the wires that were cut in step 3.) as indicated in Table 2.

**Note:** Offsetting half the wires by one inch is necessary to make the outer shrink wrap fit properly.

- 5) Use the Butt-Splice connector supplied on the end of each wire to connect the two Wiring Harnesses as shown in Table 2.

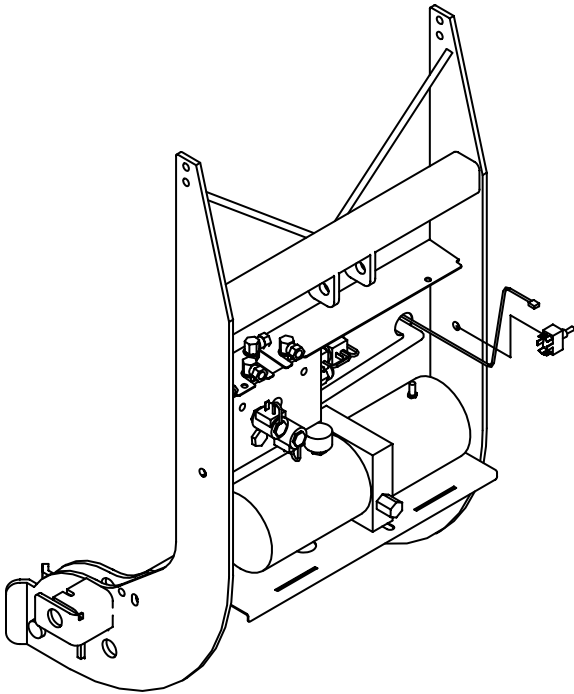
### WARNING!

Use caution when applying heat to the wiring harness. Failure to use caution when applying heat can result in serious bodily injury.

- 6) Heat each individual Butt-Splice connector to seal properly.

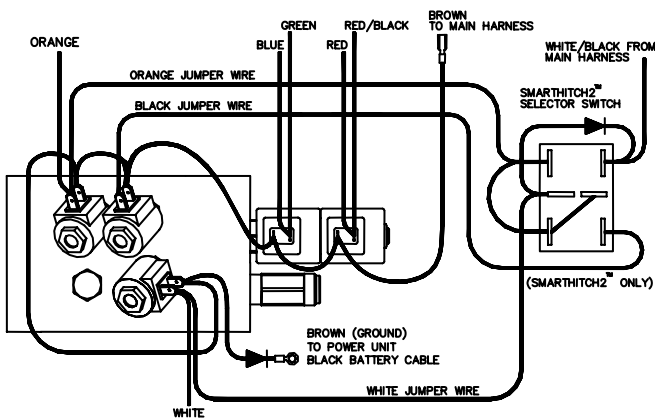
**Note:** Do **NOT** heat shrink all eleven wires together at this time.

## SmartHitch 2 Plow Side Installation Procedure



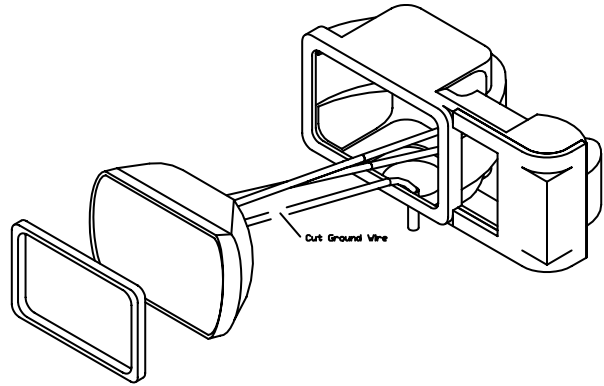
**Figure 6.** Wiring SmartHitch 2. G10171

- 7) Run the **White/Black** wire through the rubber grommet that is located on the back of the light tower.
- 8) Remove the MSC04218 SmartHitch Switch from the side of the Coupler Assembly.
- 9) Remove the two SmartHitch Jumper wires that were connected to the switch.
- 10) Install MSC04671 SmartHitch 2 Switch on the inside of the coupler tower.



**Figure 7.** Installing Switch & Jumpers G10447

- 11) Install MSC04672, MSC09867, and MSC09866 SmartHitch 2 Jumper wires as shown in Fig.7 above.



**Figure 8.** Headlight Wiring

G10172

- 12) Remove the headlight bezel.
- 13) Remove the headlamp.
- 14) Cut the **GRAY** Ground Wire in the headlight housing for the headlight bulb only. The ground wire is the wire attached to the plate inside the housing.

Note: Do **NOT** cut the ground wire for the turn and park lights.

- 15) Run the **White/Yellow** wire up through the headlight bezel grommet into the headlight housing.
- 16) Securely connect the **White/Yellow** wire to the ground wire that was cut in the previous steps.

Note: The **White/Yellow** should now be connected into the back of the headlight. Disregard the ground wire that is attached to the plate in the bottom of the bezel.

- 17) Re-assemble the headlight.
- 18) Follow steps 12-17 for the opposite headlight.
- 19) Secure the **White/Yellow** and the **White/Black** wire to the wiring harness with wire ties.
- 20) Test all plow functions for proper operation.
- 21) Slide the large shrink-wrap tube over all 11 connections. Heat and shrink.
- 22) Tuck the shrink-wrapped portion of the harness into the plow.