

January 1, 2021
Lit. No. 74230, Rev. 01



REFERENCE GUIDE

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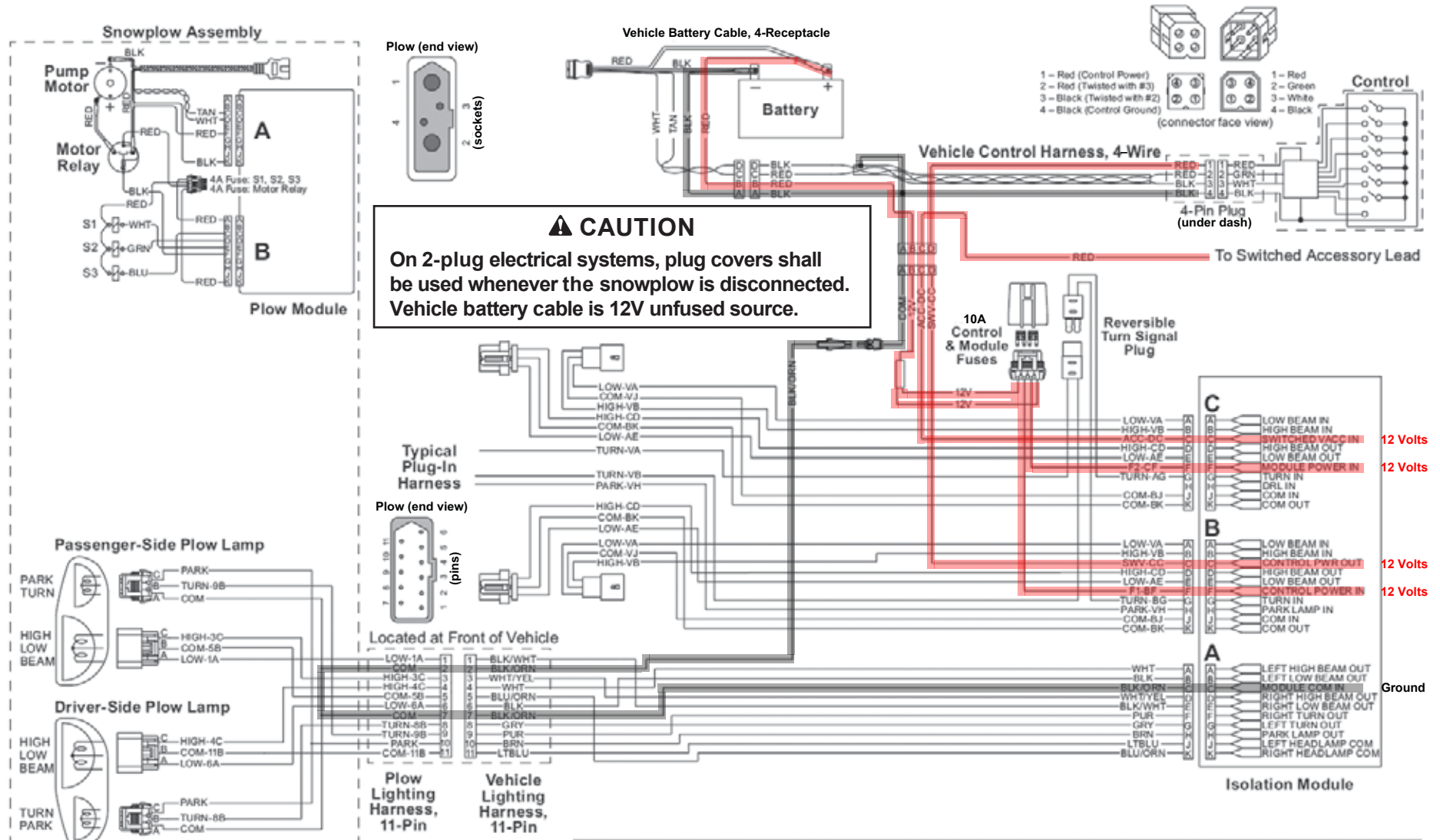
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Electrical

IMPORTANT WIRE LOCATIONS

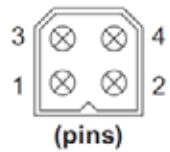


NOTE: References to "left" and "right" are correct for modules located on the driver's side of the vehicle. The reversible turn signal plug must be reversed for passenger-side installations.

4-PORT & 3-PORT ISOLATION MODULE – ELECTRICAL CONNECTORS – 2-PLUG SYSTEMS

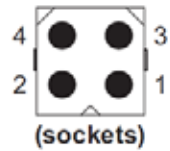
Solenoid Control Connectors

Control Side
(end view)



Pin No.	Solenoid Control Wire Color Only
1	Red
2	Green
3	White
4	Black

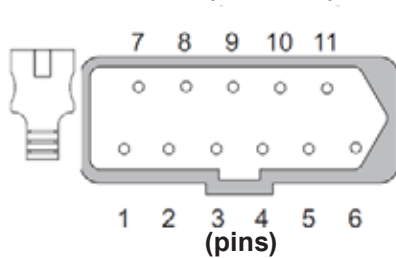
Vehicle Side
(end view)



Pin No.	Wire Color	Control Function
1	Red	+12V
2	Red	Signal
3	Black	Signal
4	Black	Ground

Plow Lighting Harness

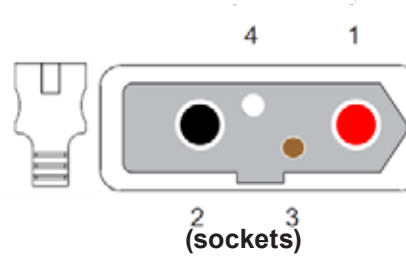
Plow (end view)



11-Pin		
Pin No.	Wire Color	Control Function
1	Black/White	PS Low Beam
2	Black/Orange	Ground
3	White/Yellow	PS High Beam
4	White	DS High Beam
5	Blue/Orange	PS Common
6	Black	DS Low Beam
7	Black/Orange	Ground
8	Gray	Left Directional
9	Purple	Right Directional
10	Brown	Parking Lamps
11	Light Blue	DS Common

Multiplex Harnesses

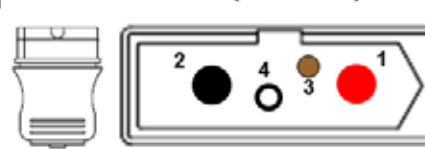
Plow (end view)



4-Pin

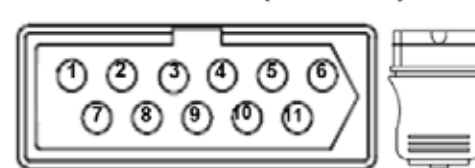
Pin No.	Wire Color	Control Function
1	Red	+12V
2	Black	Ground
3	Tan	Signal
4	White	Signal

Vehicle (end view)



Pin No.	Wire Color	Control Function
1	Red	+12V
2	Black	Ground
3	Tan	Signal
4	White	Signal

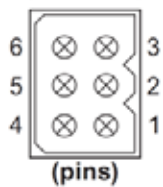
11-Pin Vehicle (end view)



4-PORT & 3-PORT ISOLATION MODULE – ELECTRICAL CONNECTORS – 3-PLUG SYSTEMS

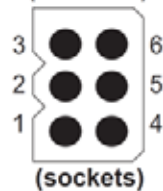
Solenoid Control Connectors

Control Side
(end view)



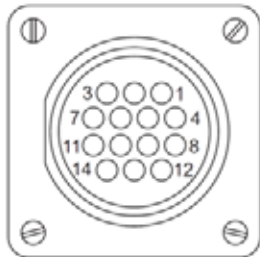
Pin No.	Solenoid Control Wire Color Only
1	White
2	Green
3	Brown
4	Black
5	Blue
6	Red

Vehicle Side
(end view)



Pin No.	Wire Color	Control Function
1	Red/Yellow	+12V
2	Light Green	Valve S2
3	Orange/Black	Ground
4	Brown/Red	Motor Relay
5	Light Blue	Valve S3
6	White/Yellow	Valve S1

MVP® Blade Control Connectors



(front view)

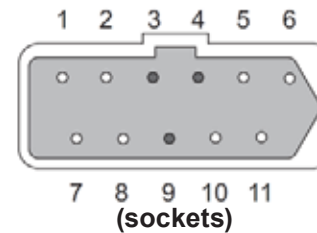
Pin No.	Wire Color
1	Light Blue w/Orange Stripe
2	Blue w/Orange Stripe
3	Black w/White Stripe
4	Light Green
5	Light Blue
6	White w/Yellow Stripe
7	Brown w/Red Stripe
8	Red w/Yellow Stripe
9	Orange w/Black Stripe
10	Brown w/Green Stripe

MVP Blade to Straight Blade Adapter Kit PN 66760K

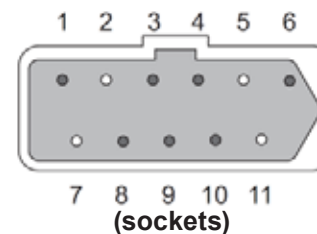


Plow Control Harnesses

Plow (end view)

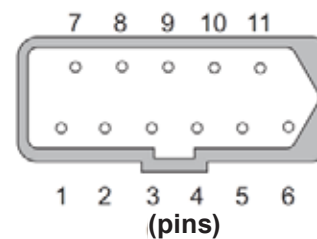


Plow (end view)



Plow Lighting Harness

Plow (end view)



3-Pin

Pin No.	Wire Color	Control Function
1	—	—
2	—	—
3	Light Blue	Valve S3
4	Light Green	Valve S2
5	—	—
6	—	—
7	—	—
8	—	—
9	White/Yellow	Valve S1
10	—	—
11	—	—

7-Pin

Pin No.	Wire Color	Control Function
1	Black/White	Valve S4
2	—	—
3	Light Blue	Valve S2
4	Light Green	Valve S3
5	—	—
6	Red	+12V
7	—	—
8	Blue/Orange	Valve S5
9	White/Yellow	Valve S1
10	Lt Blue/Orange	Valve S6
11	—	—

11-Pin




Pin No.	Wire Color	Control Function
1	Black/White	PS Low Beam
2	Black/Orange	Ground
3	White/Yellow	PS High Beam
4	White	DS High Beam
5	Blue/Orange	PS Common
6	Black	DS Low Beam
7	Black/Orange	Ground
8	Gray	Left Directional
9	Purple	Right Directional
10	Brown	Parking_Lamps
11	Light Blue	DS Common

29070-1 3-PORT ISOLATION MODULE, 76272 ADAPTER HARNESS & 29760-2 SOFT START KIT

3-Port Isolation Module



- Standard Isolation Module Kit – **29070-1**
- Used with all current truck lighting systems
- Isolates truck lights from plow lights & provides 12V power to control
- Has nothing to do with plow functions
- Use Quick Match to determine which module kit is applicable (29070-1 or 29760-2)
- Requires the use of 29047 adapter when using it in a 3-plug system.

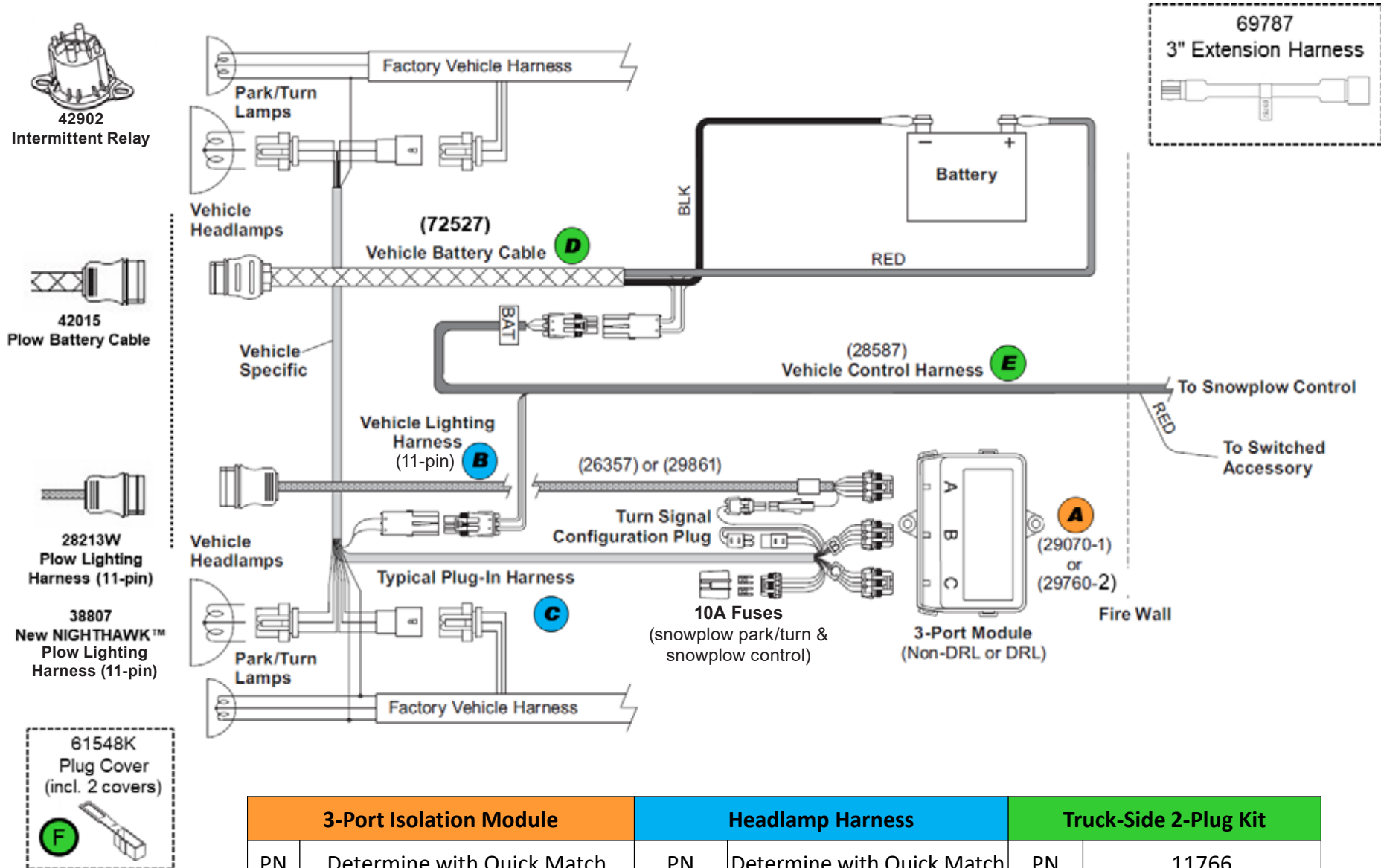
<u>29070-1</u>	3-PORT ISOLATION MODULE	
+		
<u>76272</u>	10 PIN ADAPTER HARNESS/ SOFT START	
=		
29760-2	SOFT START MODULE KIT	

- Soft Start Isolation Module kit – **29760-2**
(replaces 29760-1 blue label module)
- Slows down the transfer of lights from truck to plow when plugged in
- **Use Quick Match to determine if needed**

ATTENTION

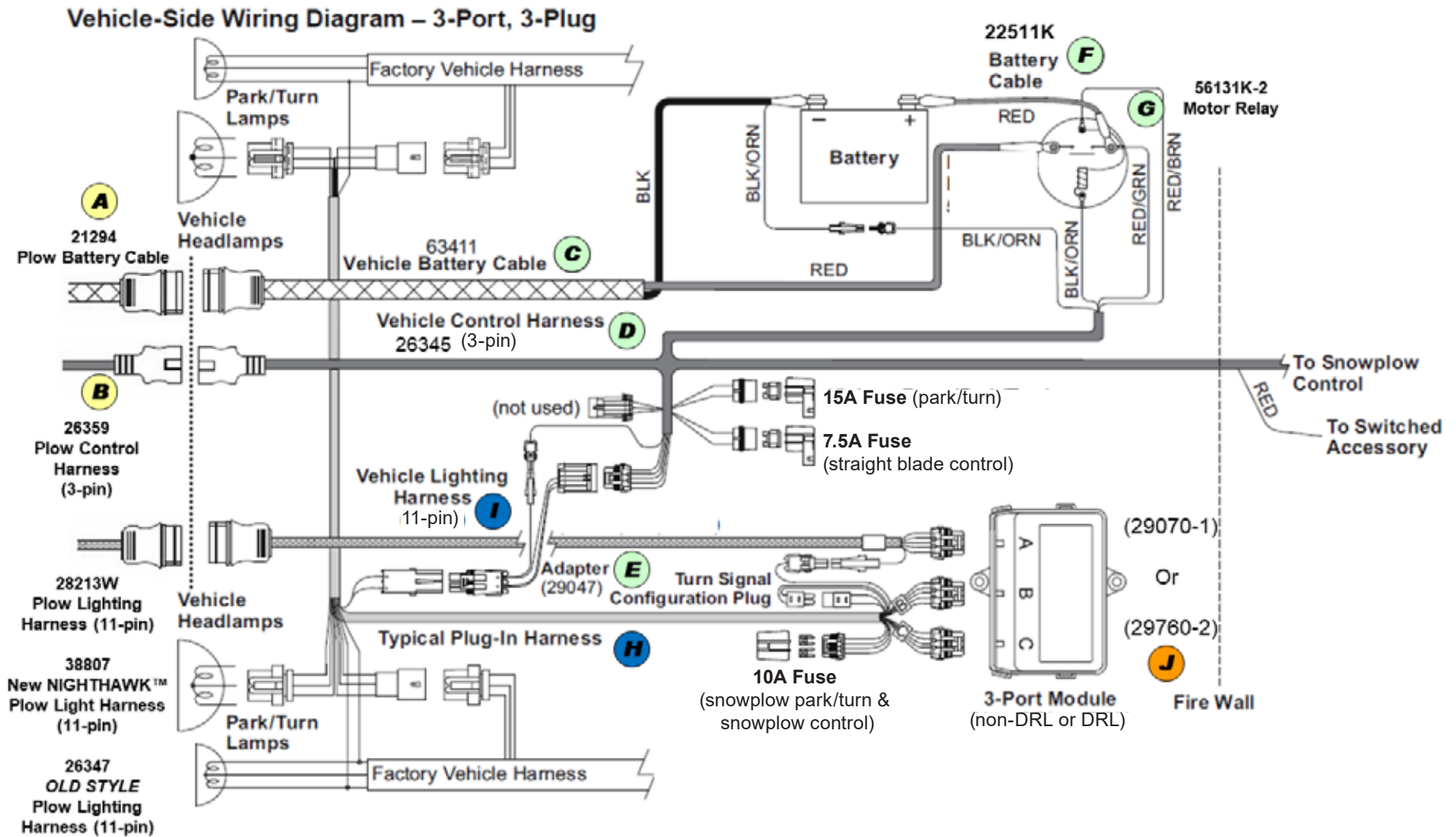
- It is the responsibility of the installer to thoroughly review the condition of any electrical components being transferred.
- It is the responsibility of the installer to exercise extreme caution when routing harnesses during an electrical transfer.
- It is highly recommended by Western Products that ALL vehicle-side electrical components be REPLACED with new components when transferring electrical systems.

FLEET FLEX ELECTRICAL 3-PORT, 2-PLUG SYSTEM



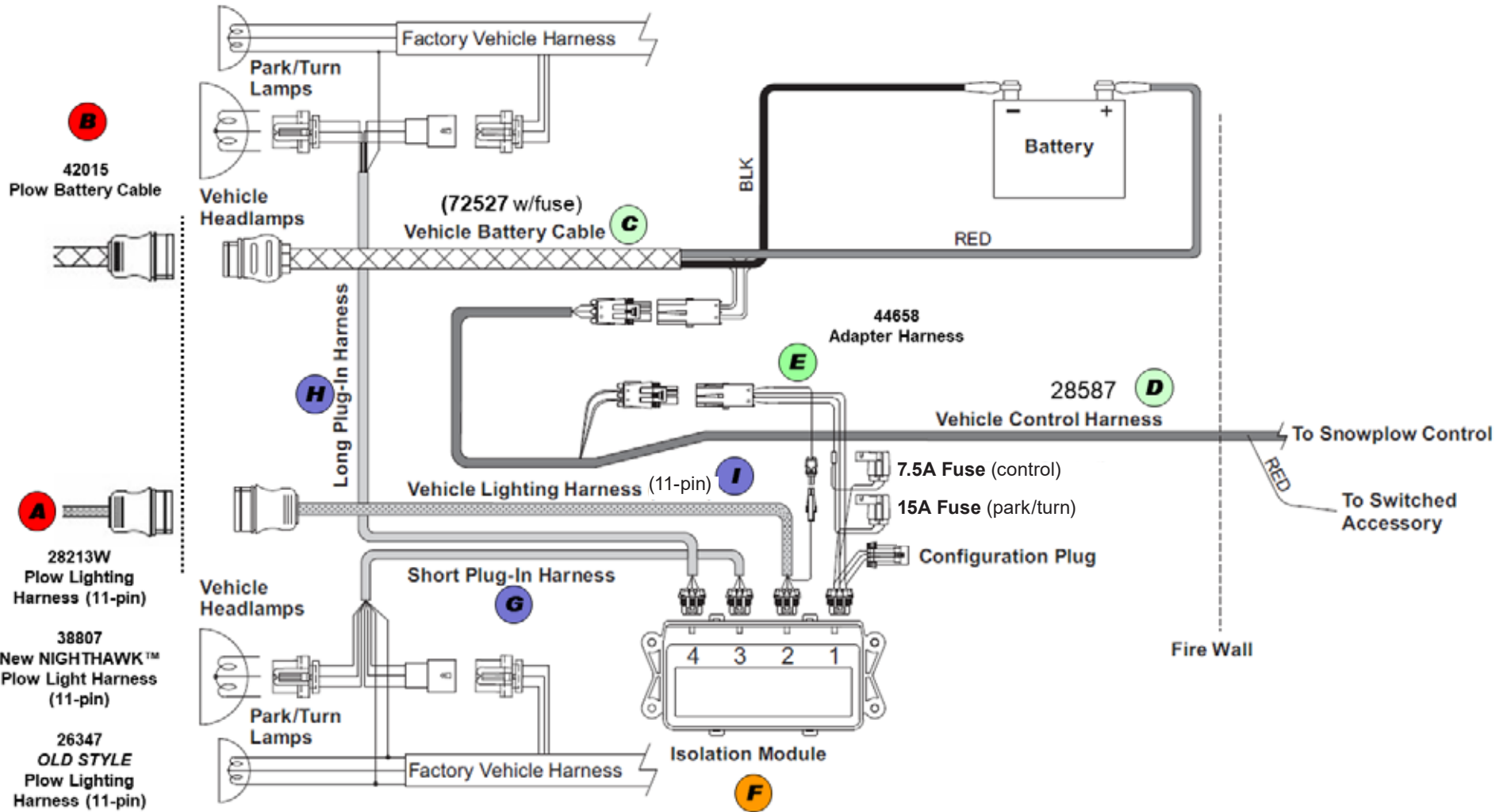
3-Port Isolation Module		Headlamp Harness		Truck-Side 2-Plug Kit	
PN	Determine with Quick Match	PN	Determine with Quick Match	PN	11766
Contains A		Contains B, C		Contains D, E, F	

STRAIGHT BLADE 3-PORT, 3-PLUG ELECTRICAL SYSTEM



Plow Side 3-Plug Kit		3-Port Isolation Module		Headlamp Harness		Truck-Side 3-Plug Kit		Plow- & Truck-Side 3-Plug Kit	
PN	49663	PN	Determine with Quick Match	PN	Determine with Quick Match	PN	49664	PN	49665
Contains A,B		Contains J		Contains H,I		Contains C,D,E,F,G		Contains A,B,C,D,E,F,G	

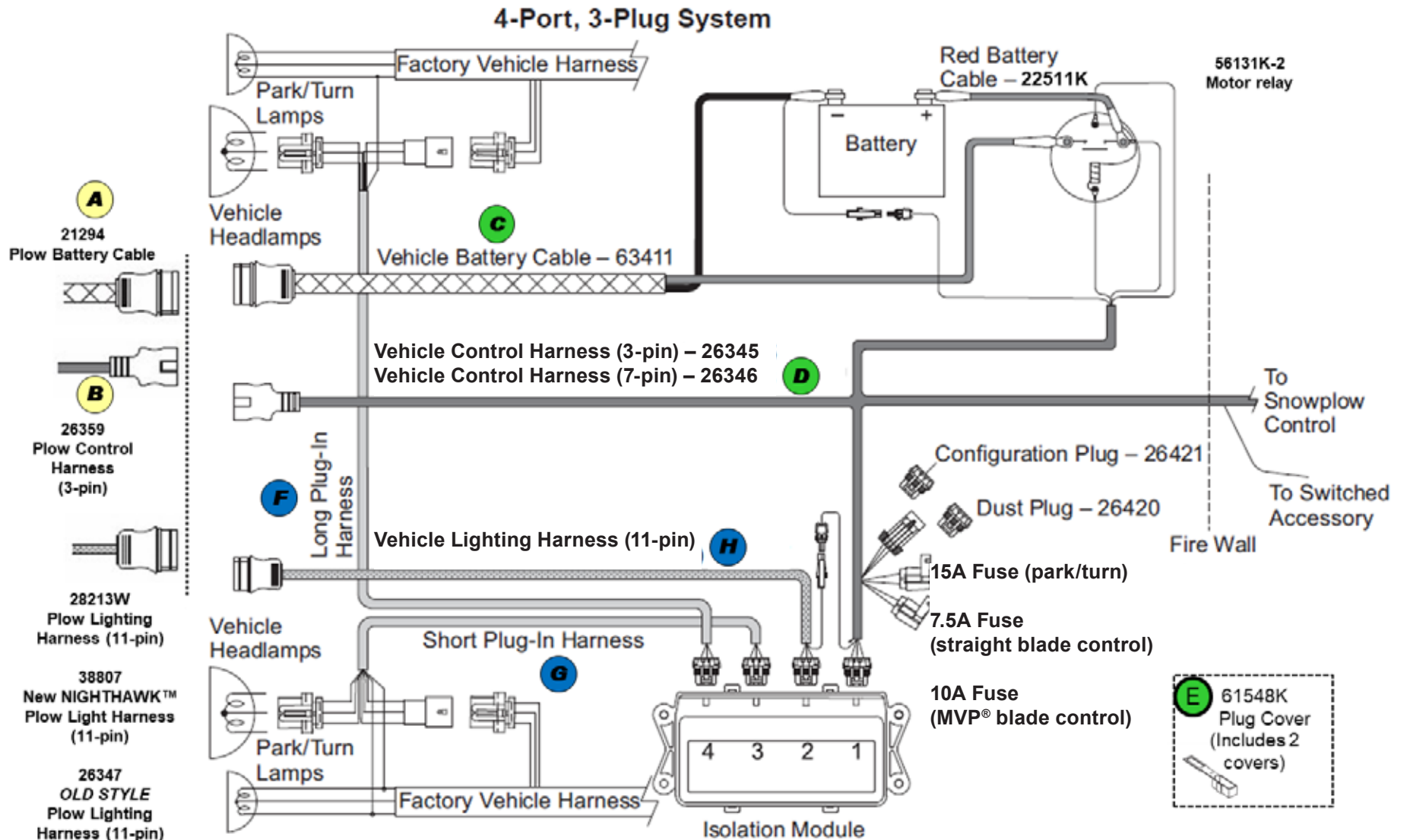
FLEET FLEX ELECTRICAL 4-PORT, 2-PLUG SYSTEM



J 61548K Plug Cover (Includes 2 covers)

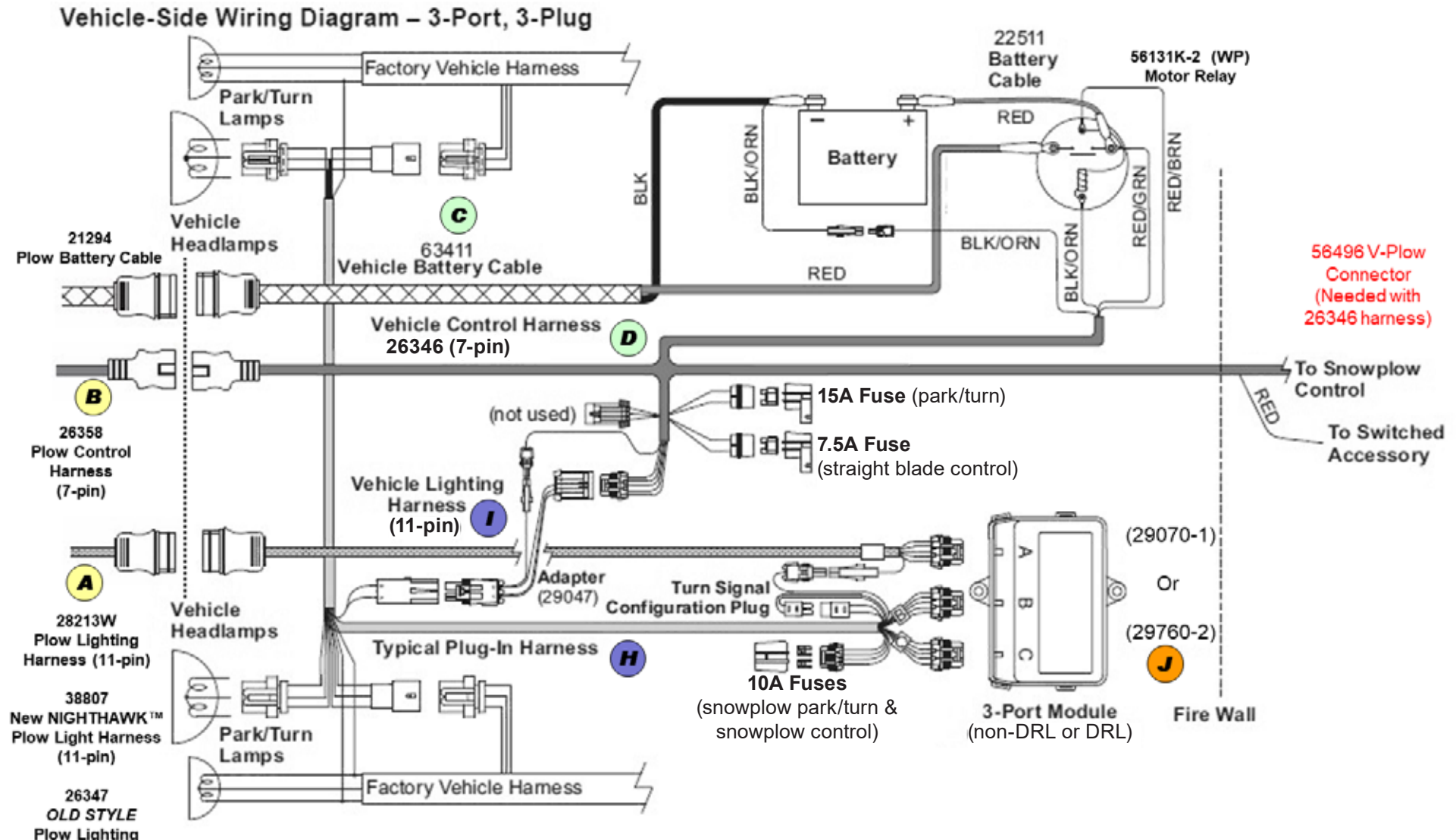
4-Port Isolation Module	Plug-In Harness Short & Long	Truck-Side 2-Plug Kit	
Determine with 4-Port Index	Determine with 4-Port Index	PN	44486
Contains F	Contains G,H, I	Contains C,D, E, J	

STRAIGHT BLADE ELECTRICAL 4-PORT, 3-PLUG SYSTEM



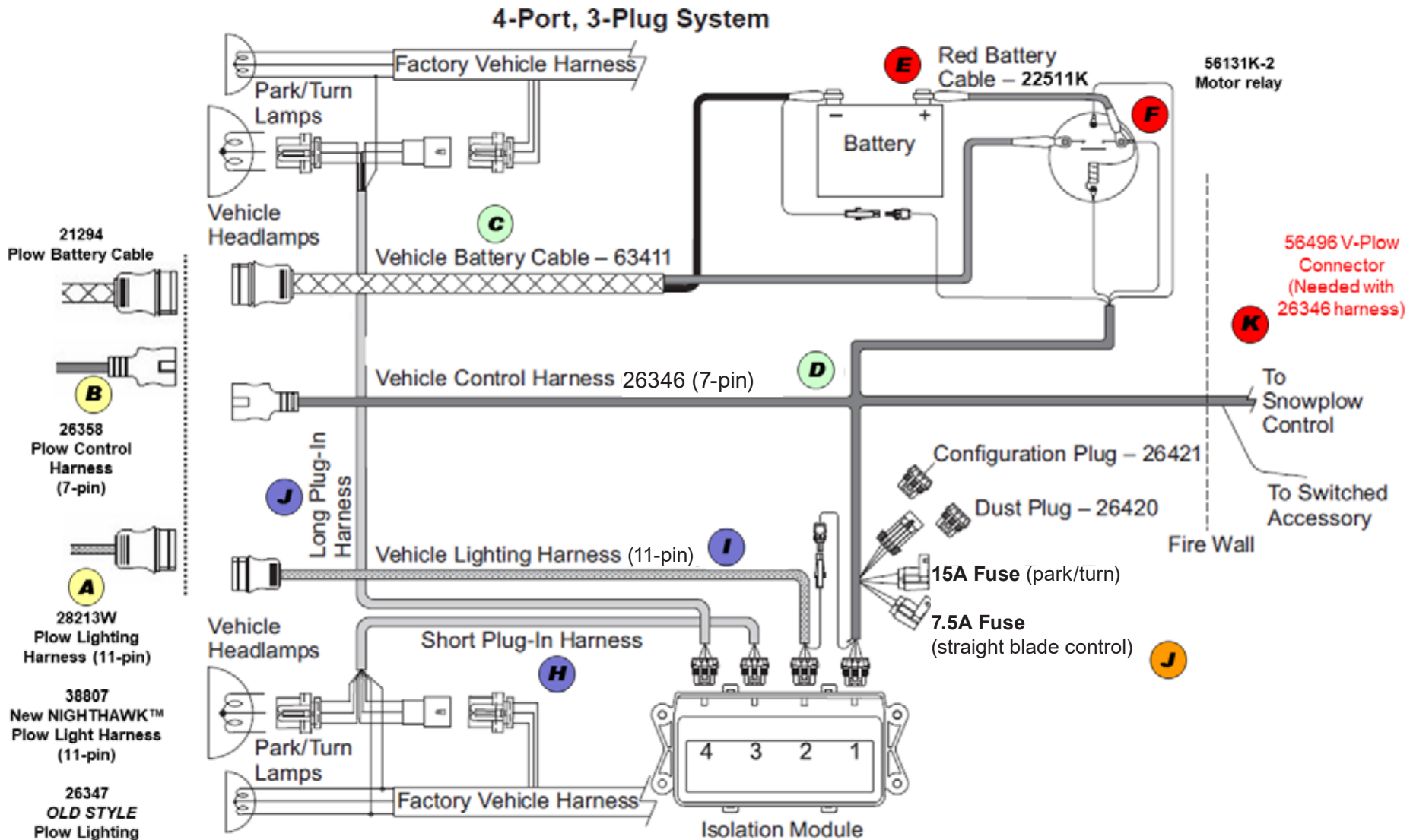
Plow-Side 3-Plug Kit		4-Port Isolation Module		Plug-In Harness Short & Long		Truck-Side Relay to 3-Plug Kit	
PN	49663	PN	Determine with 4-Port Index	PN	Determine with 4-Port Index	PN	28055
Contains A,B		Contains I		Contains F,G, H		Contains C,D, E	

MVP® SNOWPLOW ELECTRICAL 3-PORT, 3-PLUG SYSTEM



Plow-Side Relay to 3-Plug Kit		3-Port Isolation Module		Headlamp Harness		Truck-Side Relay to 3-Plug Kit	
PN	28054	PN	Determine with QuickMatch	PN	Determine with QuickMatch	PN	28056
Contains A,B		Contains J		Contains H,I		Contains C,D	

MVP® SNOWPLOW ELECTRICAL 4-PORT, 3-PLUG SYSTEM

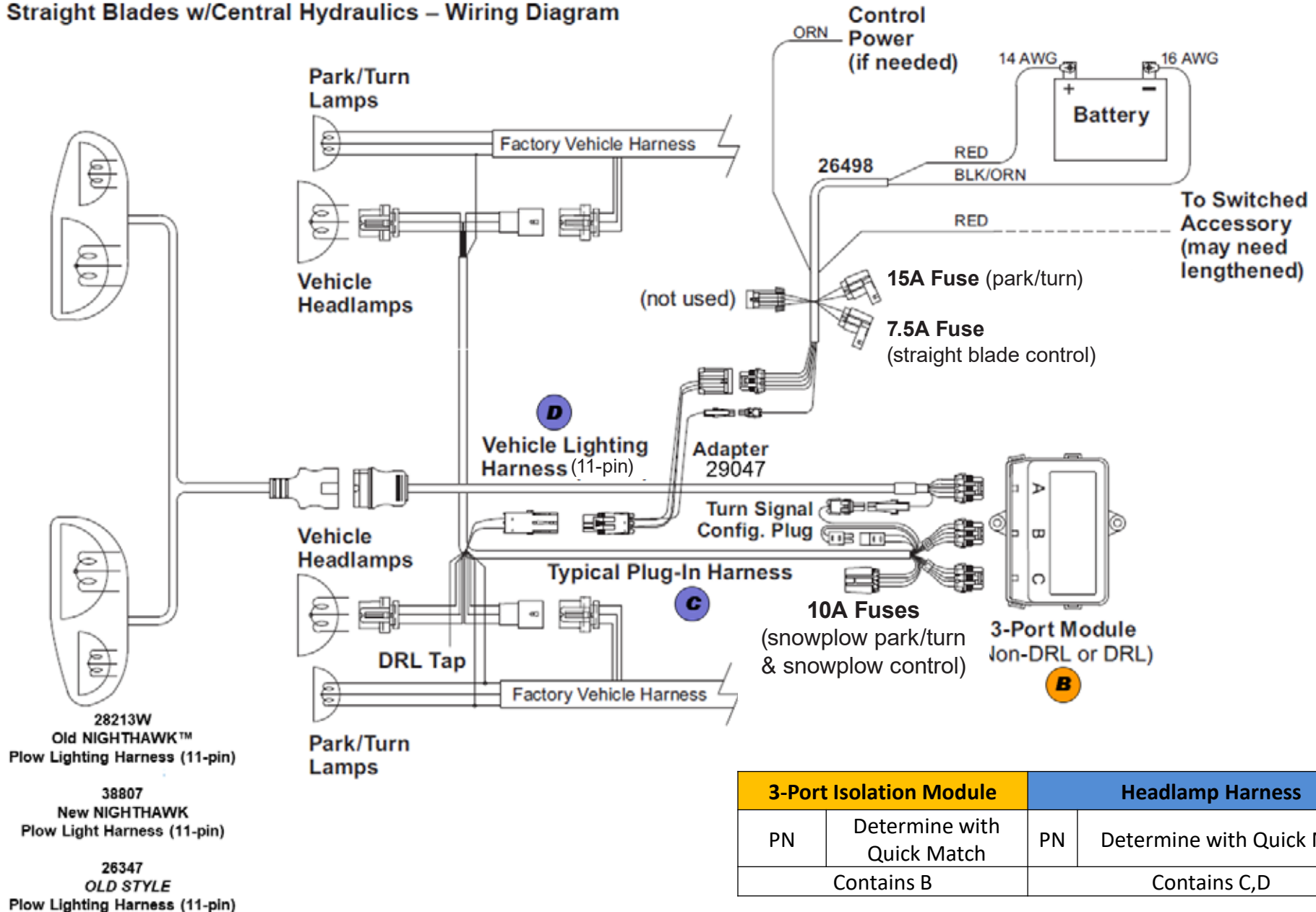


- 21294
Plow Battery Cable
- B**
26358
Plow Control
Harness
(7-pin)
- A**
28213W
Plow Lighting
Harness (11-pin)
- 38807
New NIGHTHAWK™
Plow Light Harness
(11-pin)
- 26347
OLD STYLE
Plow Lighting
Harness (11-pin)

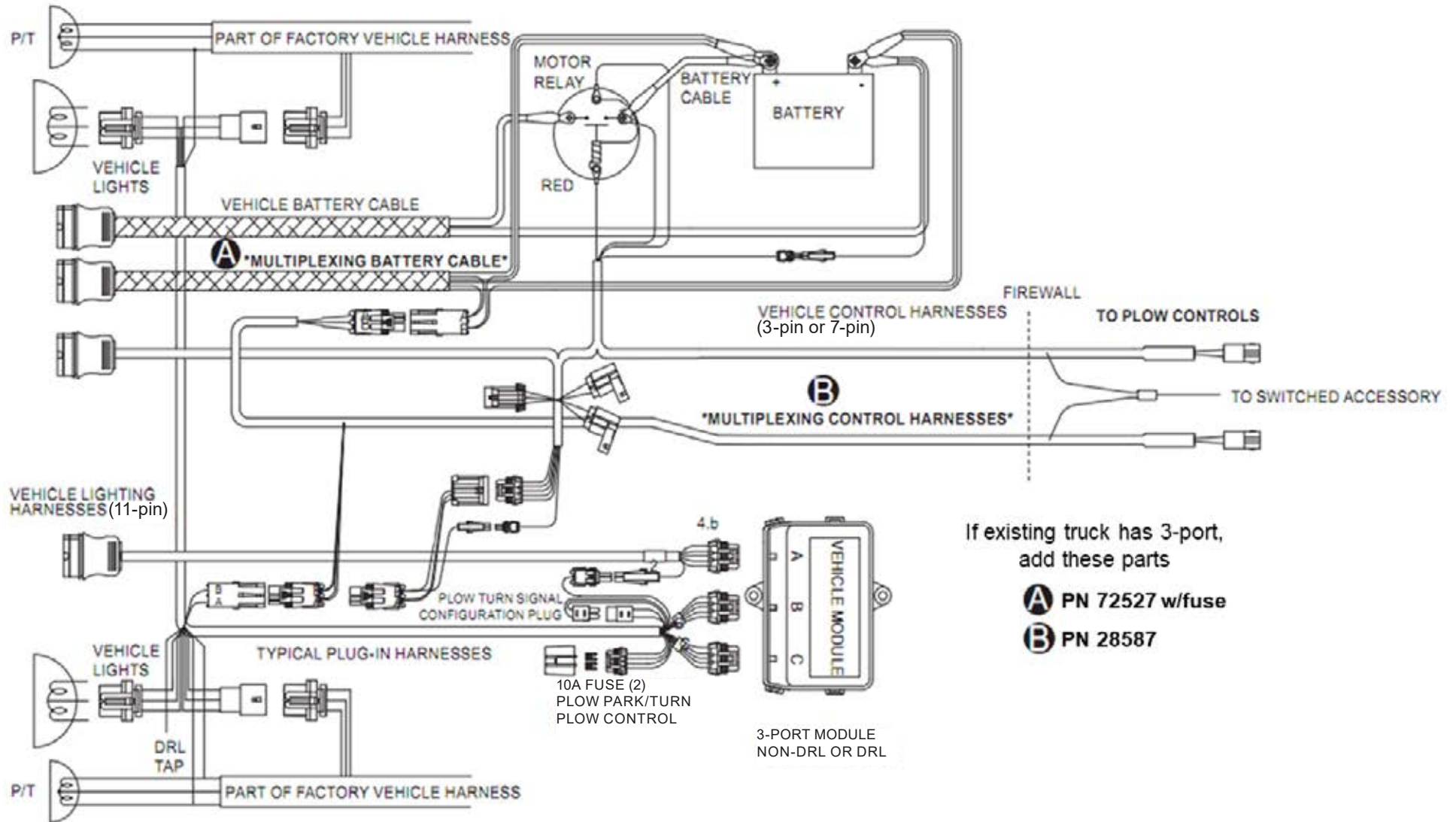
Plow-Side Relay to 3-Plug Kit		4-Port Isolation Module		Plug-In Harness Short & Long		Truck-Side Relay to 3-Plug Kit	
PN	28054	PN	Determine with 4-Port Index	PN	Determine with 4-Port Index	PN	28056
Contains A,B		Contains G		Contains H, I, J		Contains C,D	

STRAIGHT BLADE w/CENTRAL HYDRAULICS ELECTRICAL 3-PORT SYSTEM

Straight Blades w/Central Hydraulics – Wiring Diagram

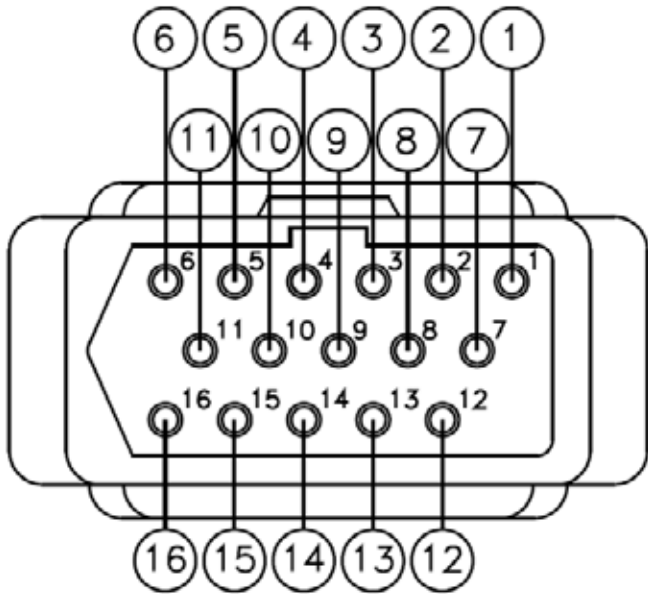


MULTIPLEX & NON-MULTIPLEX SNOWPLOWS – DUAL WIRING, 3-PORT MODULE



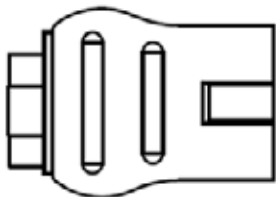
LED SNOWPLOW LIGHTING

- * Do not probe wires.
- * Left side input feeds both left and right side of plow lights.



PLOW SIDE
72548

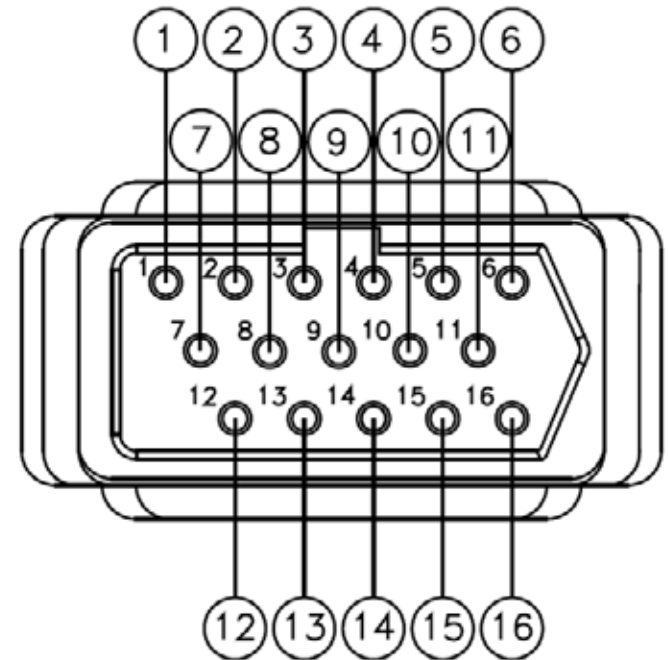
PIN SIDE



- 1 - YEL - EDGE VIEW FROM PLOW
- 2 - BLK/ORN - N/C
- 3 - BLK/WHT - RIGHT LOW
- 4 - WHT/YEL - RIGHT HIGH
- 5 - WHT - LT HIGH
- 6 - YEL - EDGE VIEW
- 7 - BLK/ORN - MODULE COMMON
- 8 - BLK - LEFT LOW
- 9 - GRY - LEFT TURN
- 10 - PUR - RIGHT TURN
- 11 - BRN - RIGHT PARK
- 12 - PNK - RIGHT DRL
- 13 - BLK/ORN - RIGHT COMMON
- 14 - BLK/ORN - LEFT COMMON
- 15 - * LT BLU, BRN - LEFT PARK
- 16 - PNK - LEFT DRL

NOTE: PIN 15
- LT BLU ON VEH SIDE
- BRN ON PLOW SIDE

Ground Loop 7 & 14 at
16-pin connector at the grille.



VEHICLE SIDE
72546



- 1 – LEFT HIGH
- 2 – LEFT LOW
- 3 – MODULE COMMON
- 4 – NC (SPARE)
- 5 – LEFT COMMON
- 6 – PARK LIGHT
- 7 – LEFT TURN
- 8 – RIGHT TURN

**HEADLAMP
CONTROL
MODULE
(HCM)**

- 1 – LEFT DRL
- 2 – LEFT FP (PARK)
- 3 – LEFT LOW
- 4 – LEFT TURN
- 5 – LEFT HIGH
- 6 – COMMON
- 7 – EdgeView™
- 8 – RIGHT LOW
- 9 – RIGHT TURN
- 10 – RIGHT HIGH
- 11 – OEM PARK (RAM ONLY)
- 12 – EV SENSE
- 13 – NC
- 14 – COMMON
- 15 – NC
- 16 – NC
- 17 – NC
- 18 – NC
- 19 – RIGHT DRL
- 20 – RIGHT PARK

*Left side input feeds both left and right side of plow lights

X

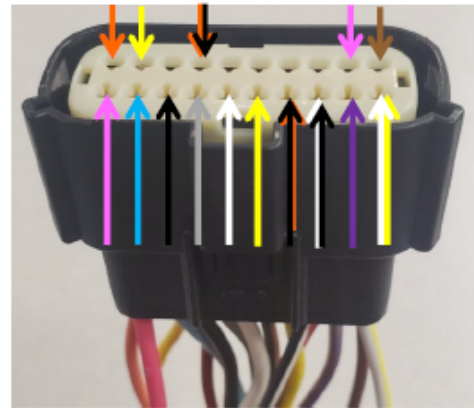
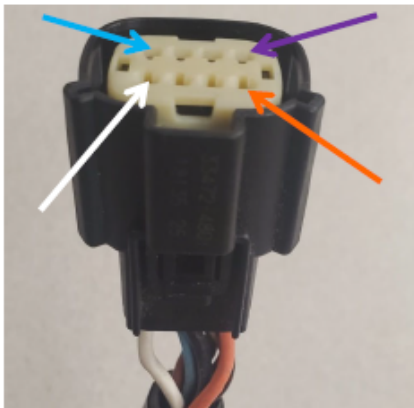
1 (WHT)	2 (BLK)	3 (BLK/ ORN)	4 (ORN)
5 (LTBLU)	6 (BRN)	7 (GRY)	8 (PUR)

BATT (+) IN



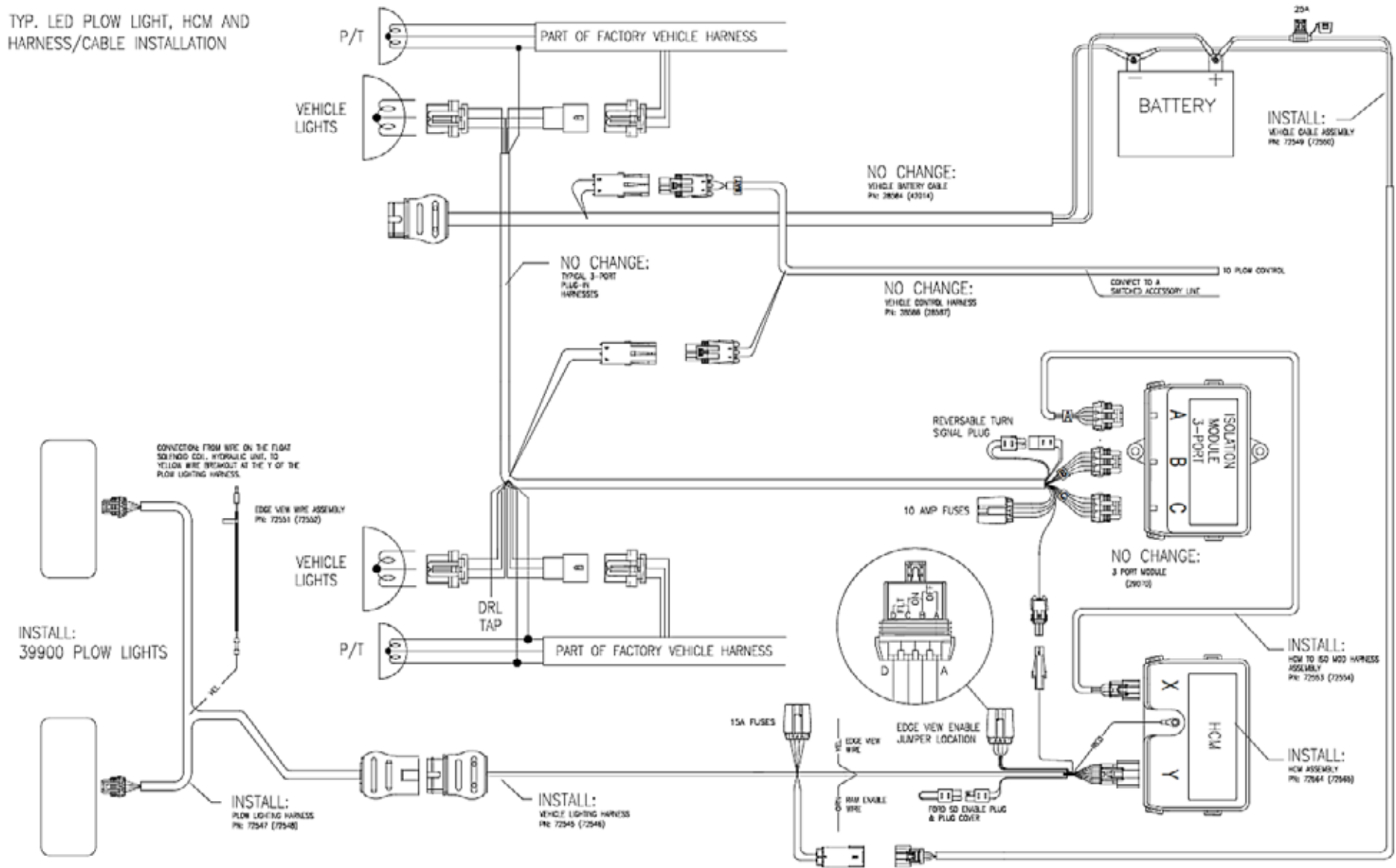
Y

1 (PNK)	2 (LTBLU)	3 (BLK)	4 (GRY)	5 (WHT)	6 (BLK/ ORN)	7 (YEL)	8 (BLK/ WHT)	9 (PUR)	10 (WHT/ YEL)
11 (ORN)	12 (YEL)	13 (NC)	14 (BLK/ ORN)	15 (NC)	16 (NC)	17 (NC)	18 (NC)	19 (PNK)	20 (BRN)

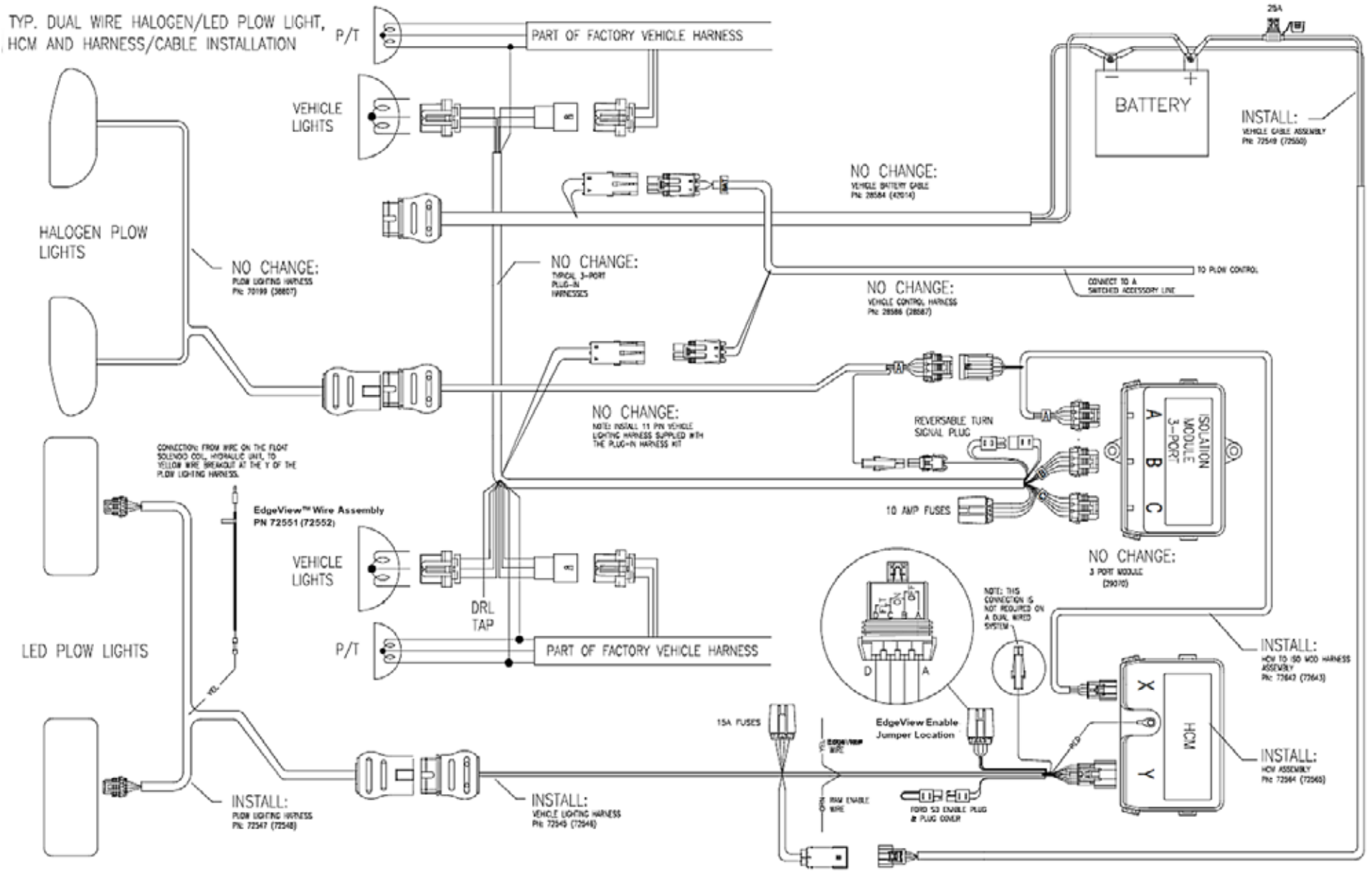


LED (FLEET FLEX) WIRING DIAGRAM – 3-PORT, 2-PLUG ELECTRICAL SYSTEM

TYP. LED PLOW LIGHT, HCM AND HARNESS/CABLE INSTALLATION



DUAL HALOGEN/LED (FLEET FLEX) WIRING DIAGRAM – 3-PORT, 2-PLUG SYSTEM



WESTERN® SNOWPLOW CONTROL REFERENCE

Non FLEET FLEX System

PN	Model	Style	Plug Description	Plug Profile
56369	Straight Blade (Minus HTS™)	Joystick	6-Pin	
56462	Straight Blade (Minus HTS)	Hand-Held	6-Pin	
96369	MVP®	Joystick	Round Plug/10-Pin Replaces 6-Button Mode Control	<p>(Front View)</p>
96462	MVP	Hand-Held	Round Plug/10-Pin Replaces 6-Button Mode Control (Connector PN 56496 needed with 26345 harness) (Fuse Kit PN 69190), (Pin Kit PN 22123)	

FLEET FLEX System

PN	Model	Style	Plug Description	Plug Profile
96800*	Straight Blades	Joystick	4-Pin	<p>(pins) (sockets)</p>
96400	MVP PLUS™, MVP 3™, WIDE-OUT™ & FLEET FLEX Straight Blades			
35600	FLEET FLEX Blades			
85250	IMPACT™			
96900**	Straight Blades	Hand-Held	4-Pin	<p>(pins) (sockets)</p>
96500	MVP PLUS, MVP 3, WIDE-OUT & FLEET FLEX Straight Blades			
35500	FLEET FLEX Blades			
85200	IMPACT			

WESTERN, FISHER®, BLIZZARD® (only) Gray Master Control #78800 Lit. No. 41312, Rev. 01

* Alternate Part Number 96400

**Alternate Part Number 96500

CONVERSION KITS

Straight Blade Conversion Kits

Part Number		Part Number		Part Number	
49663		49664		49665	
Description		Description		Description	
Plow-Side Straight Blade Multiplex Kit		Vehicle-Side Straight Blade 3-Plug Common Harness Kit		Complete Straight Blade Multiplex to 3-Plug Conversion Kit	
Components Included	PN	Components Included	PN	Components Included	PN
Plow Battery Cable	21294	3-Pin Vehicle Control Harness	26345	Plow Battery Cable	21294
3-Pin Plow Control Harness	26359	Short Battery Cable – 22"	22511K	3-Pin Plow Control Harness	26359
		Vehicle Battery Cable	63411	3-Pin Vehicle Control Harness	26345
		Motor Relay	56131K-2	Short Battery Cable – 22"	22511K
		Adapter	29047	Vehicle Battery Cable	63411
				Motor Relay	56131K-2
				Adapter	29047

WESTERN® HEADLAMPS

2019 – present *16-pin Connector* NIGHTHAWK™ LED Headlamp
Part# **72560 Kit**
Part# **DS 39901**
Part# **PS 39902**



2017 – present *11-pin Connector* NIGHTHAWK Halogen Headlamps Gen 2 (two bulb) **LB 38811/HB 38809**
Part# **38800 Kit**
Part# **DS 38801**
Part# **PS 38802**



2005 – SOLD AS REPLACEMENT ONLY *11-pin Connector* NIGHTHAWK Halogen Headlamps Gen 1 (one bulb) Part# **28806**
Part# **28800-1 Kit**
Part# **DS 28801-1**
Part# **PS 28802-1 (ns)**



1996 – SOLD AS REPLACEMENT ONLY *11-pin Connector* Sealed Beam "Brick Style" Headlamp
Part# **61543 kit**
Part# **DS 61541 (ns)**
Part# **PS 61542**



ns = not shown

NIGHTHAWK™ Headlamps

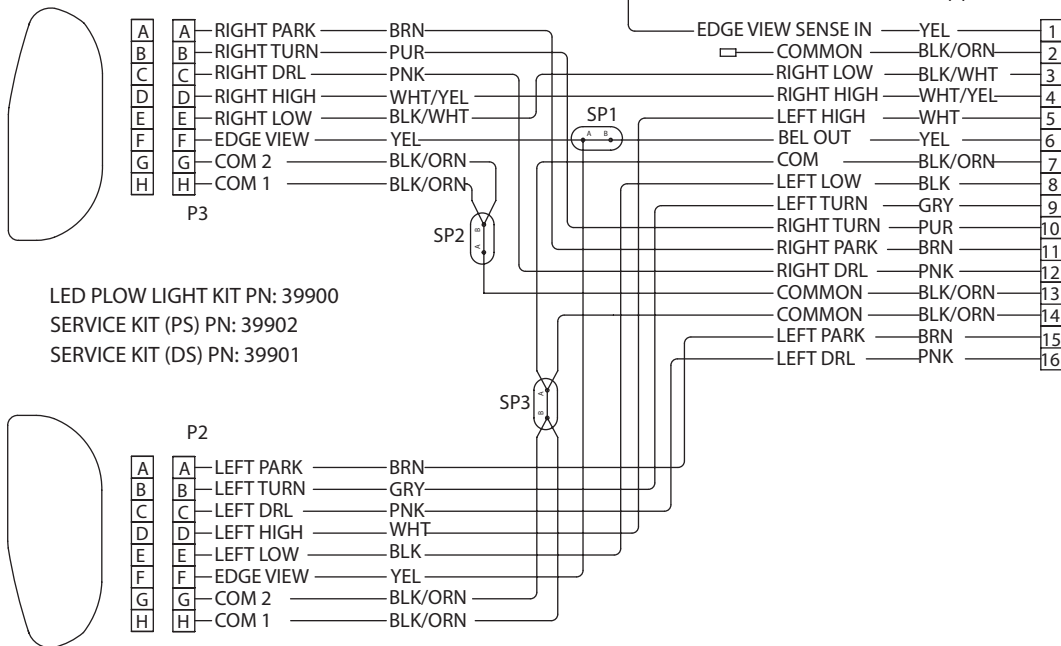
CONNECTION: FROM WIRE ON THE FLOAT SOLENOID COIL, HYDRAULIC UNIT, TO YELLOW WIRE BREAKOUT AT THEY OF THE PLOW LIGHTING HARNESS.
PN: 72551 (72552)



72548 (LED)

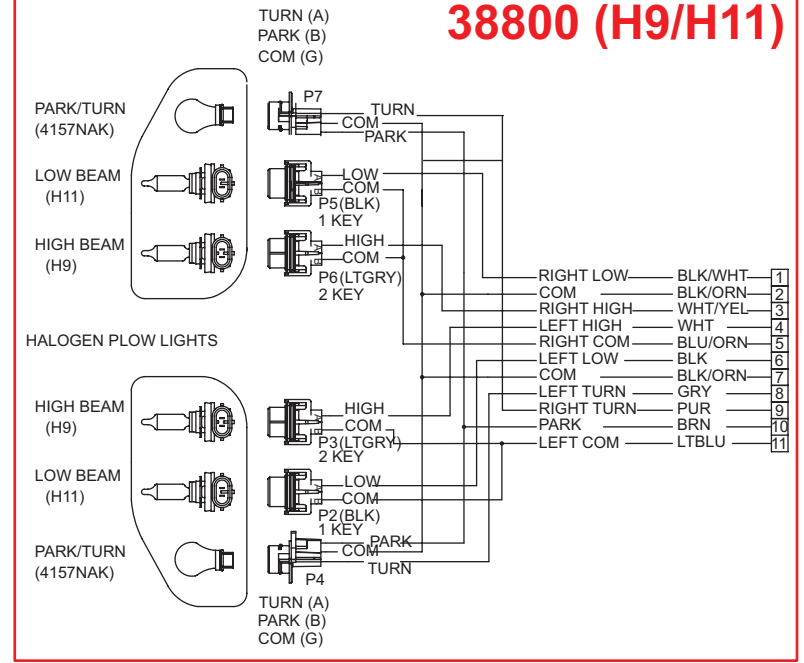
LED PLOW LIGHTS

NEW PLOW LIGHTING HARNESS: PN 72547 (72548)

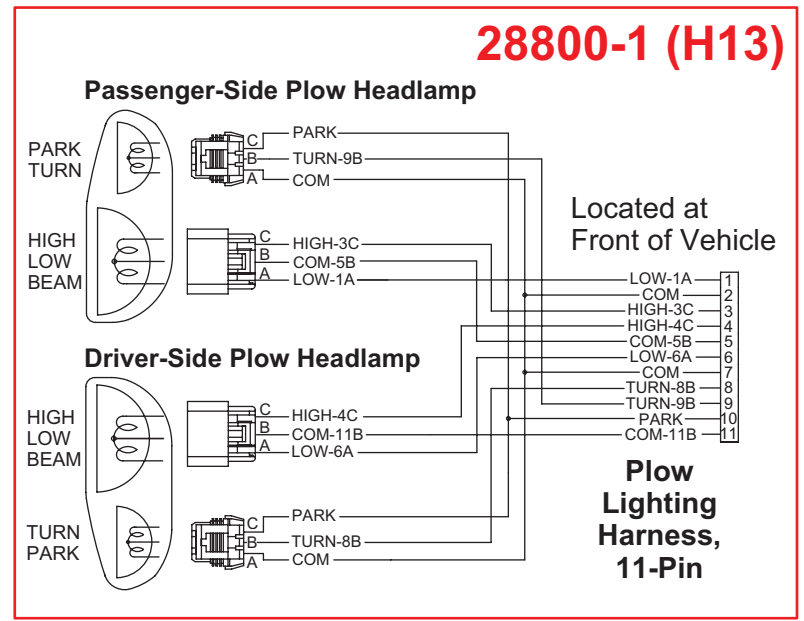


LED PLOW LIGHT KIT PN: 39900
SERVICE KIT (PS) PN: 39902
SERVICE KIT (DS) PN: 39901

38800 (H9/H11)



28800-1 (H13)



HEADLAMP CONFIGURATIONS

HB-3 / HB-4 Headlamps

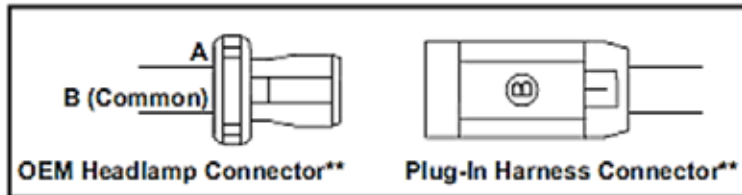
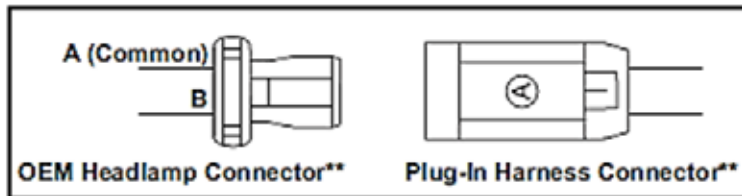
HB-3 / H11 Headlamps

LSD: LOW-SIDE DRIVE

12V present on one terminal. Ground NEGATIVE (-) is applied to the second terminal to trigger relay/solenoid coil.

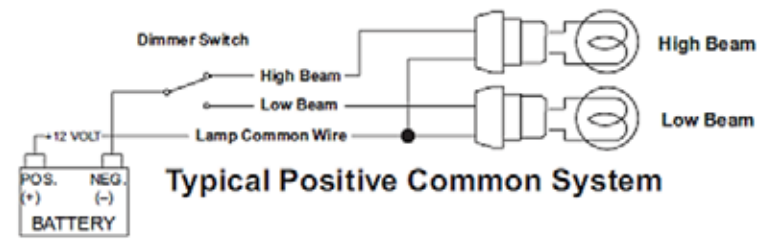
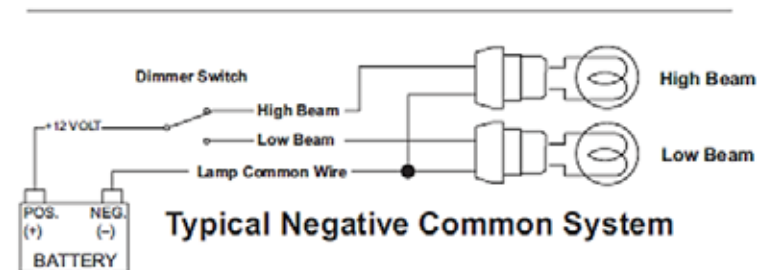
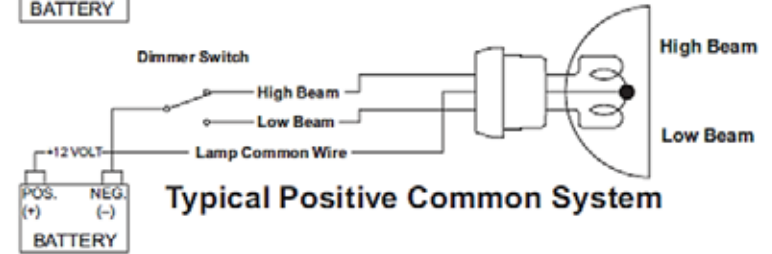
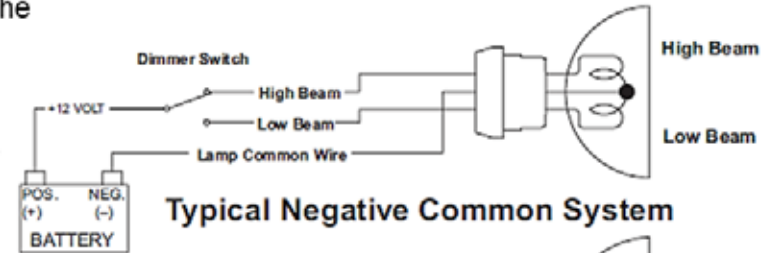
HSD: HIGH-SIDE DRIVE

Ground NEGATIVE (-) present on one terminal. 12V POSITIVE (+) is applied to the second terminal to trigger relay/solenoid coil.



** Connector appearance will vary.

NOTE: Use a multi-meter, determine the ground NEGATIVE (-) to properly install reversible 2-position connectors.



HEADLAMP CONFIGURATIONS

HB-1/HB-5 Headlamps

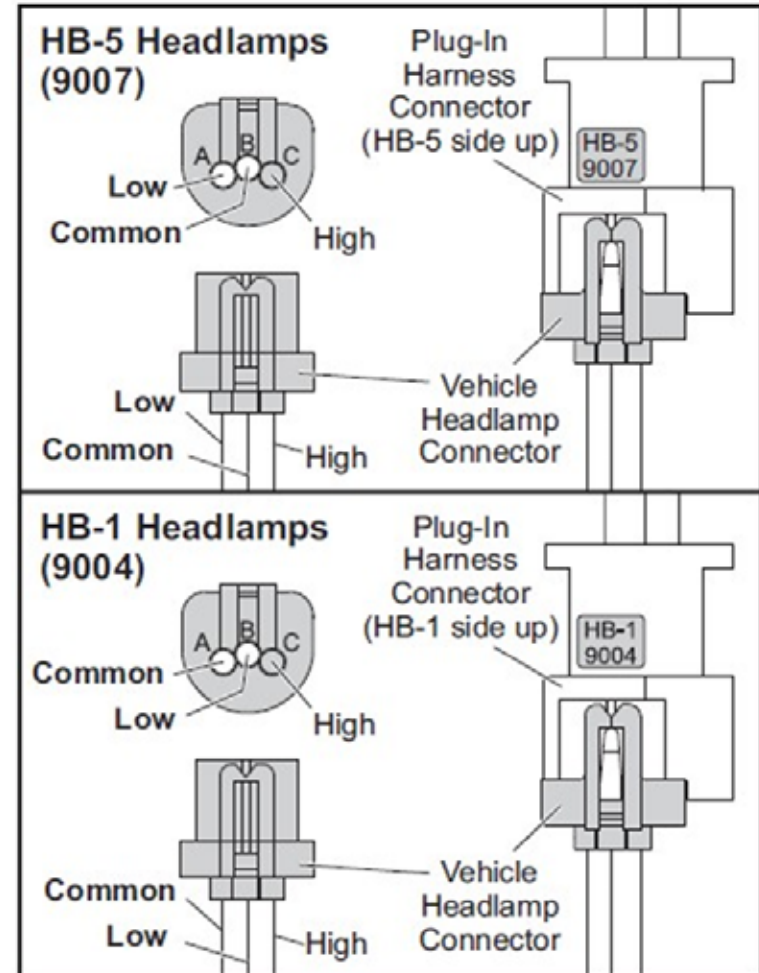
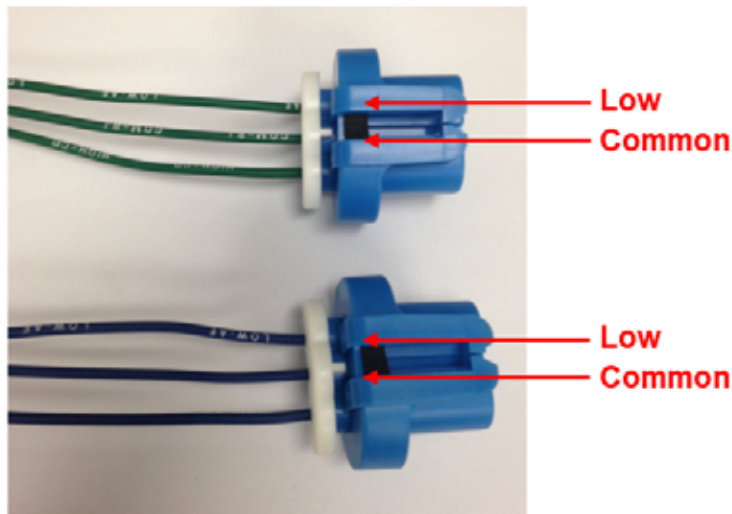
Pre-Configured for HB-5 Headlamps

Vehicles with HB-1 headlamps, the Low and Common pins need to be re-located.

What is the symptom if the Low and Common pins are not relocated and/or plugged to the correct side of the plug-in harness?

High beam indicator on all the time, dim snowplow low beam headlamps

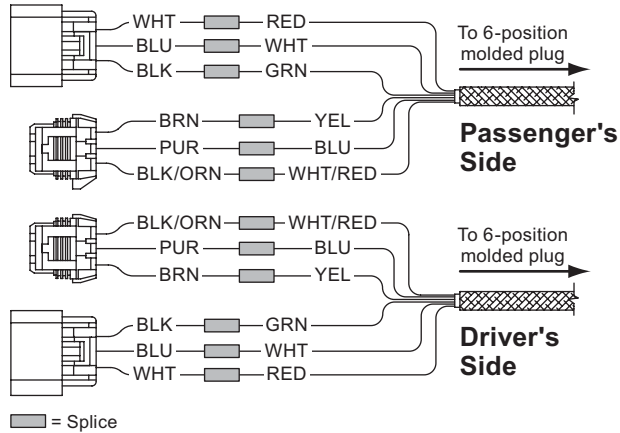
Typical headlight connectors should be re-pin ONLY for HB-1 headlamps (blue plugs).



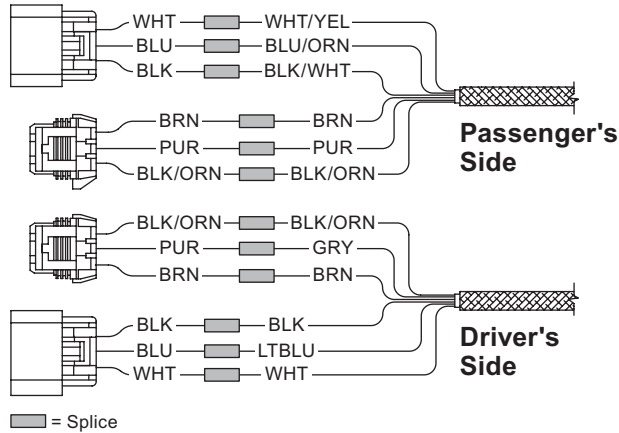
29033 ADAPTER KIT H13

Converts relay system to NIGHTHAWK™ / INTENSIFIRE™ / STORM SEEKER™ Headlamps

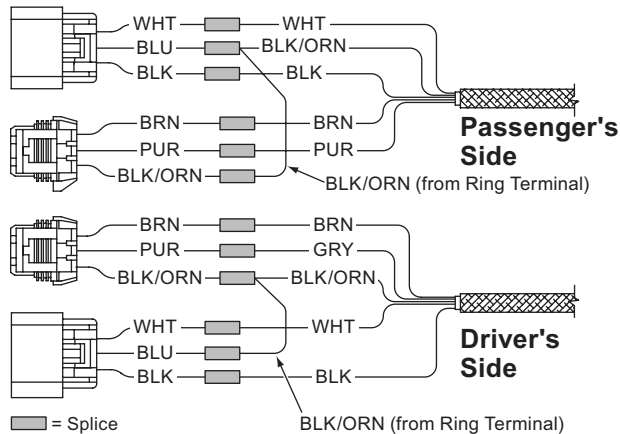
6-Pin Headlamps



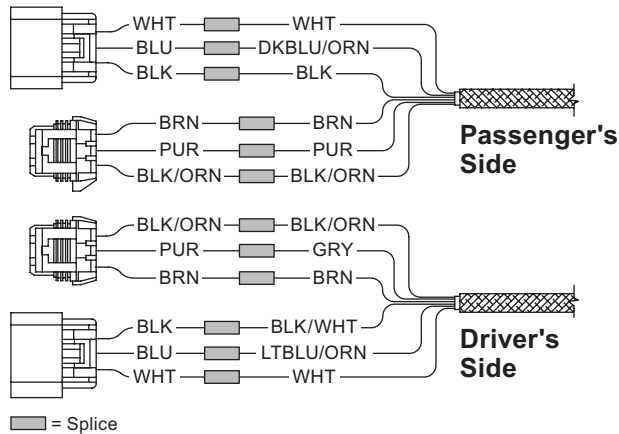
11-Pin Headlamps



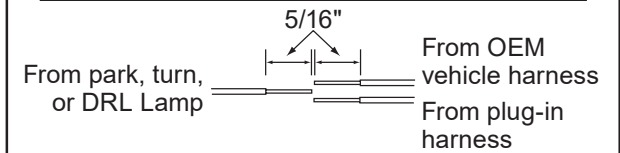
7- and 9-Pin Headlamps



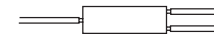
12-Pin Headlamps



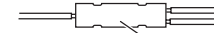
Splicing Procedure



Insert wires into splice.

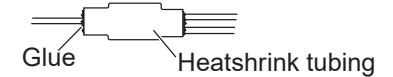


Crimp and solder each splice.



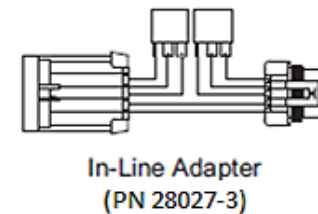
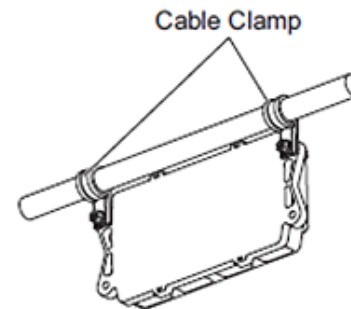
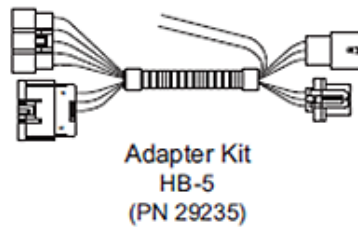
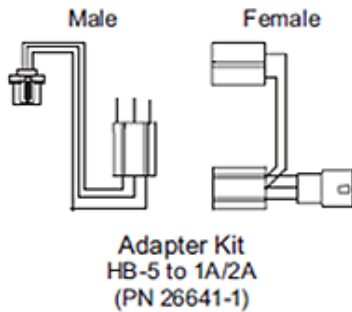
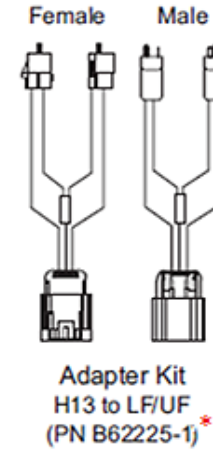
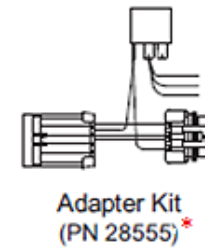
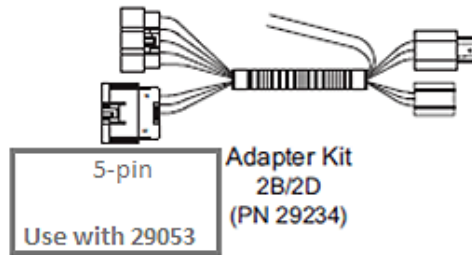
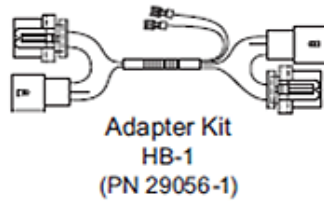
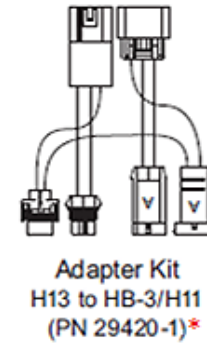
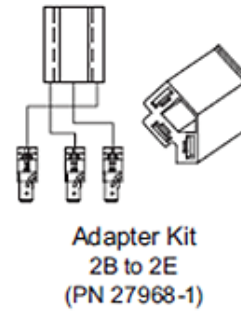
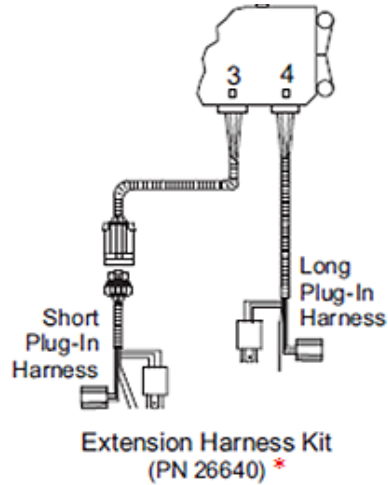
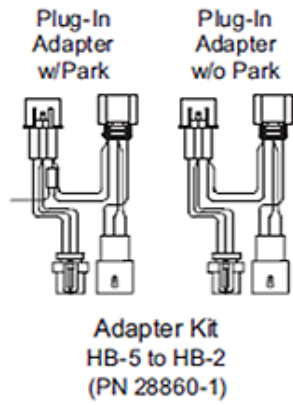
Butt Splice

Cover the splice with heatshrink tubing. Using a hot air source, apply heat until tubing recovers and glue can be seen around the edges. Allow tubing to cool before handling.



Excerpts taken from Lit. No. 29034

4-PORT ISOLATION MODULE SYSTEM – ADAPTER KITS



HEADLAMP MATRIX

Headlamp Type	Vehicles	Years	Isolation Module Kit # **	Short Plug-In Harness	Long Plug-In Harness	11-Pin Vehicle Harness Only	Isolation Module
H13	Ford F-150	2004 – 2010	28400*	28244*	28242*	26357	26400*
	Ford Super Duty	2005 – 2007					
	Ford Super Duty	2009 – Present					
	Dodge 1500, 2500, 3500	2006 – 2012					
	Dodge Dakota	2004 – 2011					
	Dodge Durango	2004 – 2010					
	GMC Yukon/Yukon XL	2007 – 2014					
HB-3/H11	Chevy/GMC 1500	2007 – 2013	28400*, 28027-3, 29420-1*	28244* & 29420-1*	28242* & 29420-1*	26357 & 28027-3	26400*
	Chevy/GMC 2500, 3500	2007 – 2014					
HB-3/HB-4	Chevy/GMC Tahoe/Suburban	2007 – 2014	27780*, 29458*, 28027-3	26315* & 29458*	26352* & 29458*	26357 & 28027-3	27781*
	Chevy/GMC Trailblazer/Envoy/Bravada	2002 – 2009	28028*	28032	28030*	26357	26400*
	Chevy/GMC Blazer/Jimmy/S-10/Sonoma	1998 – 2004	27480-1*	26361-1*	26360-1*	26357	26400*
	Chevy/GMC Colorado/Canyon (US)	2004 – 2012					
	Chevy/GMC Colorado/Canyon (Canadian)	2004 – 2014	8437-1* & 28555*	26361-1* & 28555*	26360-1* & 28555*	26357	27781*
	Chevy/GMC Blazer/Jimmy/S-10/Sonoma	1995 – 1997	8438	26351*	26352*	26357	26400*
	Chevy/GMC 1500/2500/3500 (classic)	1990 – 2002					
	Chevy/GMC 1500/2500/3500	1999 – 2002	8437-1*	26361-1*	26360-1*	26357	27781*
	Chevy/GMC 1500/2500/3500/Avalanche	2003 – 2006	27780*	26351*	26352*	26357	27781*
	Ford Explorer	2002 – 2003	8438* & 28027-3			26357 & 28027-3	26400*
	Nissan Titan	2004 – Present	27480-1* & 28027-3	26361-1*	26360-1*	26357 & 28027-3	

* Starred part numbers are obsolete.

** Kit includes module, long & short harness, 11-pin vehicle light harness.

HEADLAMP MATRIX

Headlamp Type	Vehicles	Years	Isolation Module Kit # **	Short Plug-In Harness	Long Plug-In Harness	11-Pin Vehicle Harness Only	Isolation Module
2B/2D or HB-2	Jeep	1984 – 2002	8439*	26356*	26353*	26357	26400*
	Dodge	1972 – 1993					
	Ford	1980 – 2002					
	Chevy/GMC	1973 – 2002					
	Toyota	1984 – Present					
	International	1989 – 2002					
2E	Chevy/GMC Blazer/Jimmy/S-10/Sonoma	1995 – 1997	8439* & 27968-1	26356* & 27968-1	26353* & 27968-1		
	Dodge Dakota	1987 – 1996					
2B/2D or 1A/2A	Chevy/GMC 4500/5500	2003 – 2009	27890*	27885*	27886*		
2B/2D	Chevy/GMC Topkick/Kodiak 4500/5500	1990 – 2002	8443*	n/a	26638*		
HB-5/HB-1 (Quad)	Dodge	1999 – 2002	8442*	26372*	26370*		
HB-1 or HB-5	Dodge	1991 – 2005	8436*	26349*	26354*		
	Ford	1980 – 2004					
	Mazda	1991 – 1994, 1999 – 2003					
	Toyota 4Runner	1992 – 1995					
	Jeep Liberty	2002 – 2007					
	Mitsubishi FG	2005 – 2010				8436* & 28860-1	26349* & 28860-1
International	2003 – Present	8436* & 26640*	26349*	26354*			
1A/2A	Dodge	1974 – 1983	8436* & 26641-1	26349* & 26641-1	26354* & 26641-1		
	Chevy/GMC	1973 – 1987					
	Isuzu/Mitsubishi	1994 – 1997					
LF/UF	Jeep Wagoneer	1985 – 1991	28400* & B62225-1*	28244* & B62225-1*	28242* & B62225-1*		
	Chevy/GMC	1988 – 1991					

* Starred part numbers are obsolete.

** Kit includes module, long & short harness, 11-pin vehicle light harness.



Refer to Relay Electrical Index for Vehicle Specific Plug-In Harness Kits

MVP® control pin kit
22123

REPAIR END KITS

Part	Description
Truck Side	
49308	9-Pin
49310	12-Pin
Snowplow Side	
49317	9-Pin
49319	12-Pin ^(a)
Kit Containing Both Snowplow & Truck Ends	
49366K	9-Pin
49367K	12-Pin ^(a)

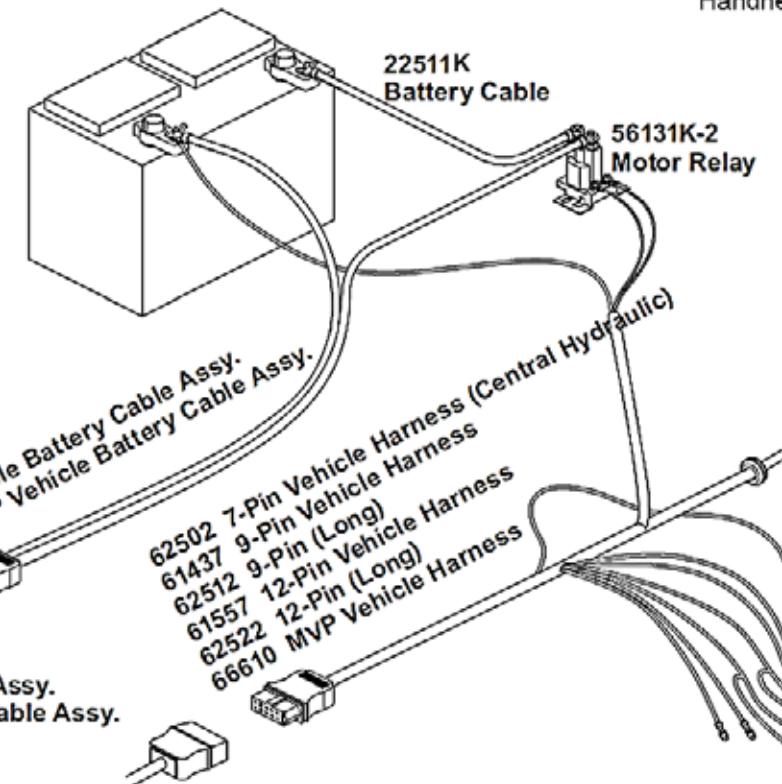
Plow Light Kits

61540-1	9-Pin
61550-1	12-Pin
66640-2*	12-Pin (MVP)
62500-1	7-Pin (CH)

CONTROLS & ADAPTERS

Part	Description
56369	Solenoid Control
56462	CabCommand for Straight Blades
96462	NEW 9-Button MVP® Control
96369	NEW Joystick MVP Control
66760K	MVP to Straight Blade Adapter
62392	SAE to Molex Adapter
61845	4' Control Harness Extension (Molex)
27070	Molex Repair End Kit (Veh. Harness)
29033	NIGHTHAWK™ Adapter Kit

Joy Stick
Handheld

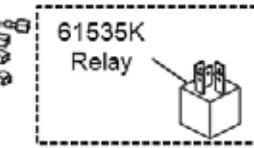


80168
6A Fuse Kit

Plug Covers

Truck 61548K (single)
Plow 61246 (double hangs on plow)

62503 7-Pin Plow Harness (Central Hydraulic)
61438 9-Pin Plow Harness
61558 12-Pin Plow Harness
66611-1 MVP Plow Harness



For vehicle specific headlamp plug-in harness, refer to the *Headlamp Electrical Schematic Guide* PN 22373.

^(a) Can be used for MVP Blades if modified.

**Starred part numbers are obsolete.

RELAY ELECTRICAL INDEX

Headlamp Type	Vehicles	Years	WESTERN® Kit	WP Headlamp Harness	WP Vehicle Harness	WP Headlamp Relay
HB-3/HB-4	Chevy/GMC No DRL	1988 – 1998	61515	61716	61437	(2) 61535K
	Chevy/GMC with DRL	1987 – 1995	61585	61586	61557	(3) 61535K
	Chevy/GMC	1999 – 2002	63392	26071	61437	(4) 61535K
	Chevy/GMC	2003 – 2006	64077	64075	61557	(6) 61535K
	Chevy/GMC (MVP®/EZ-V®)	2003 – 2006	64085	64075	63390 & 63401	(6) 61535K
2B/2D or HB-2	Jeep	1984 – 2002	61530/ ALT: 61545	61781-1	61437	(2) 61535K
	Dodge	1972 – 1993				
	Ford	1980 – 2007	61545	61546	61437	(2) 61535K
	Chevy/GMC No DRL	1981 – 1998				
	Chevy/GMC with DRL	1981 – 1998	61555	61556	61557	(3) 61535K
	Toyota No DRL	1984 – 2002				
	Toyota With DRL	1984 – 2002	61595	61546 (2)	61557	(4) 61535K
	Ford	1999 – 2002	63422	61546	61437	(2) 61535K
	International	1989 – 2002	62520	62521	62522	(3) 61535K
2E	Dodge Dakota	1987 – 1996	61575	61576	61437	(2) 61535K
HB-5/HB-1 (Quad)	Dodge	1999 – 2002	63396	26027	61437	(3) 61535K
	Dodge	1994 – 1998	62525	62526	61437	(2) 61535K
HB-1	Dodge	1999 – 2001	62917	26009	61437	(4) 61535K
	Ford	1980 – 1991	61570	61571	61437	(2) 61535K
HB-5	Ford	1992 – 1998	61590	61591	61437	(2) 61535K
	Ford	1999 – 2003	63420	61591	61437	(2) 61535K
1A/2A	Dodge	1974 – 1983	61565	61566	61437	(2) 61535K
	Chevy/GMC	1973 – 1987				
	Isuzu/Mitsubishi	1994 – 1997	63407	63409	61437	(2) 61535K
LF/UF	Jeep Wagoneer	1985 – 1991	61580	61581	61437	(2) 61535K
	Chevy/GMC	1988 – 1991				

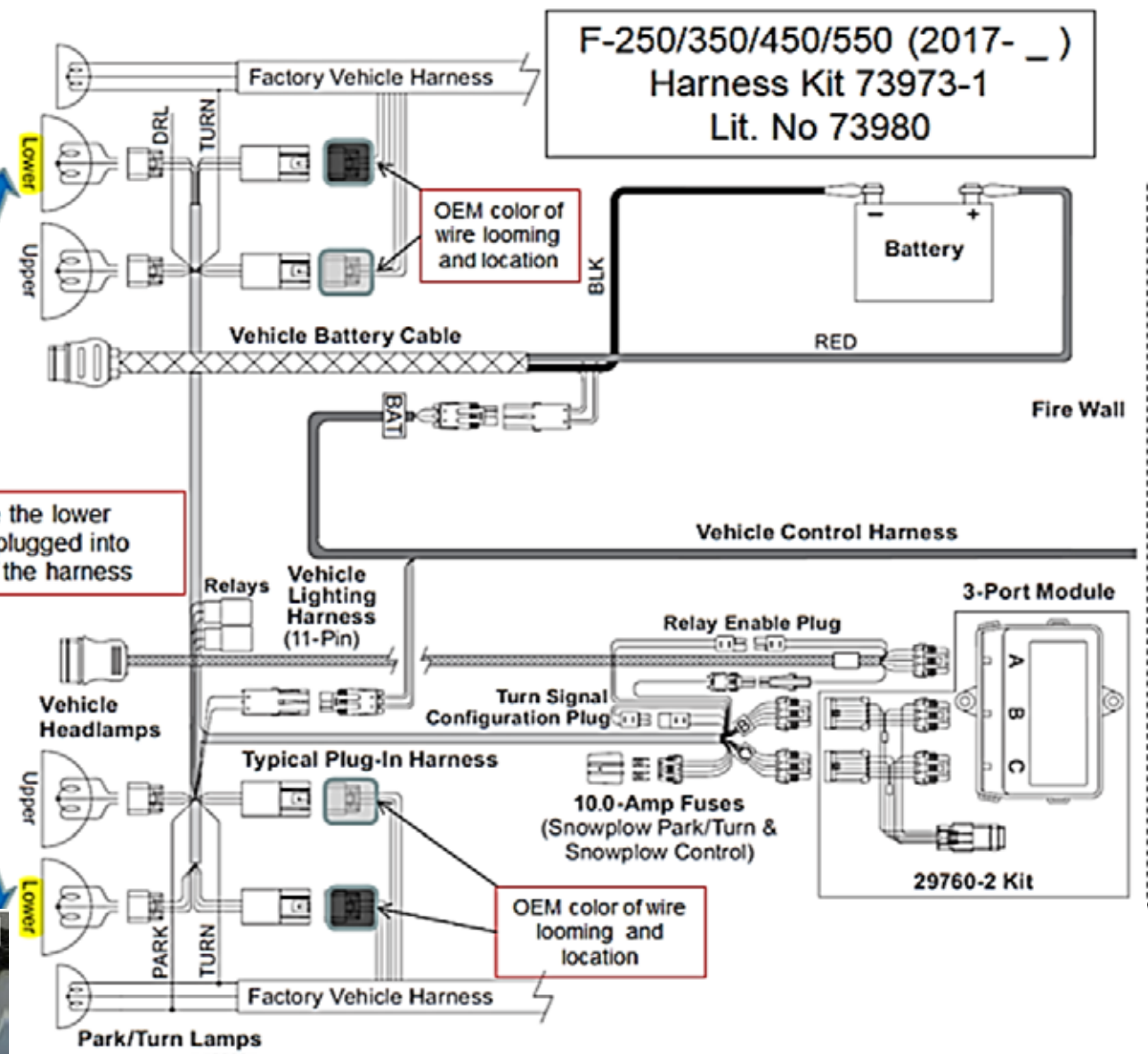
Part numbers in red are obsolete.

Part numbers in blue are 12-pin harness with DRL (61557).

HEADLAMP HARNESS GUIDE

HEADLAMP TYPE	HEADLAMP HARNESS KIT (Plug-In & 11-Pin)	PLUG-IN HARNESS ONLY	11-PIN VEHICLE LIGHT HARNESS ONLY	NOTES
Chevy/GM/Ford/Jeep/Nissan (HB-3/HB-4)	29048	28253	26357	
Chevy/GM/Ram/Ford/Jeep/Sterling (H13)	29049	28986	26357	
Ram/Ford/Jeep/Mazda/Mitsubishi/Nissan (HB-5/HB-1 Dual or Quad)	29050	28930	26357	
Chevy/GM/Ford/Isuzu/Jeep/Toyota (2B or 2D or HB-2 Dual)	29051	28464	29861-4	
Chevy/GM (HB-3/HB-4 4-Pin Connector)	29052	28294	26357	
Chevy/GM/Ford/Hino/International/Mitsubishi/Fuso (2B/2D or 1A/2A, GM 4500/5500 Dual or Quad)	29053	29058	26357	
Chevy/GM (2B/2D 7-Pin Connector)	29054	29270	26357	
Chevy/GM/Toyota Quad (HB-3/H11)	29400-7	29499-1	29861-4	
Ram (HIR2/HB-3) Projector Style	69804-1	69803	29861-4	
Chevy/GM (HB-3/H11/HIR2)	69818-2	69817-1	69793-1	
Ford 2015 – F150 (HB3/H11 & LED)	69889-1	69888	69793-1	
Ram 2500/3500 2015 – ___ (7-Wire)	69892-1	69986	69886-1	
Chevy/GM K1500 Silv/Sierra 8-Pin (HID/LED)	72101-1	83608	69793-1	
Ram 1500 16-Pin	72192	89803	69793-1	
Ram 12-Pin Halogen	72359	89703	69793-1	
Ford Super Duty Quad 2017 – ___ (H13)	73973-1	73972-2	73970	
Ford Super Duty 2017 – ___ (LED)	73977-2	73976-1	69793-1	
Frieghtliner 5-Pin	74212	29058	29861-4	
Chevy/GM/International (GM HD)	81330	81328	29860	
Nissan (HB-3/HB-11)	83900	29499-1	29861-3	
Jeep (Halogen and LED)	89807	89806	69793-1	
Chevy/GM 2500/3500 (HB-3/H11/HID)	52101	69935	29860	(May also need 29234.)
Ford Projector Style (HID)	69805-1	69798	69793-1	
Chevy/GM 1500 19 – ___ and 2500 20 – ___	72199	72198	69793-1	
Nissan Titan (LED)	72200	72206	29861-4	
16-Pin	74973	74972	26357	
New Ford Ranger	77533	77532	69793-1	
Toyota Tundra (LED)	79147-1	79146-1	29861-4	
LED Gray	96618-1	96617	69793-1	

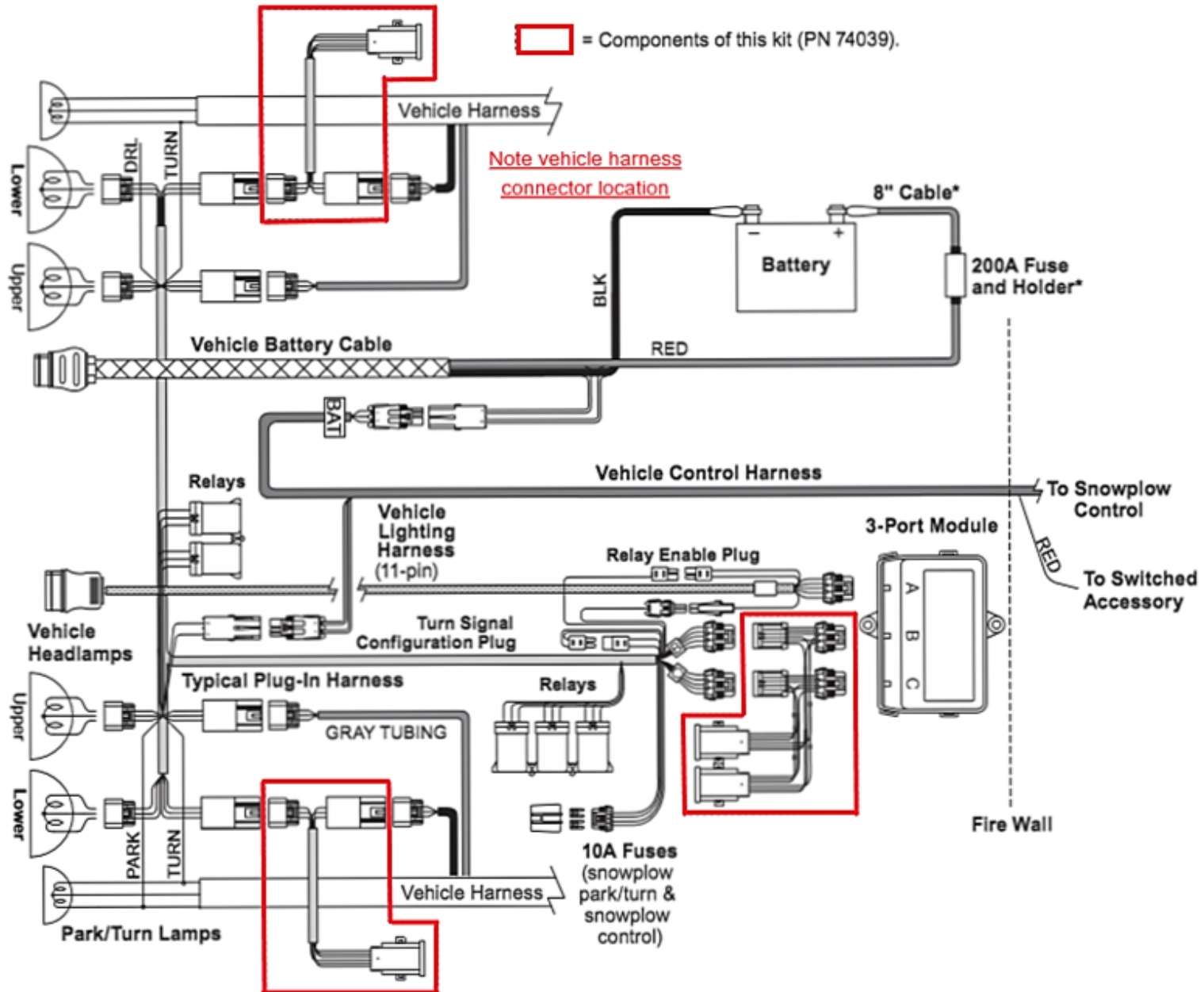
73973-1 Plug-In Harness Kit		
Part	Description	Qty
73970	Vehicle Lighting Harness – 11-Pin	1
73972	Plug-In Harness, Quad H13	1
	Reclosable Fasteners	4
	Splices	1
	Heatshrink Tubing	1



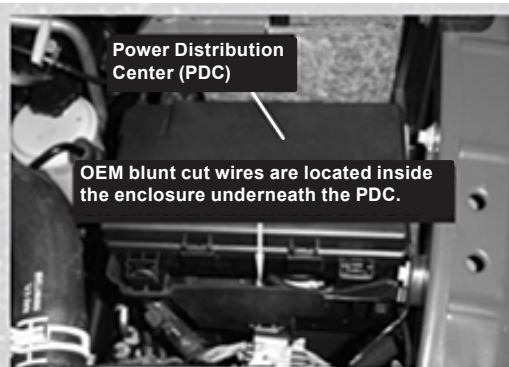
Make sure the lower lights are plugged into the end of the harness



74039 SOFT START KIT – H13 QUAD HALOGEN LIGHTS



69892-1 HARNESS KIT – 2015 DODGE RAM 2500–5500



Black/Violet (enable) – Isolation module provides 12V to this wire from Port B Pin C "Control Power Out" to activate wires.

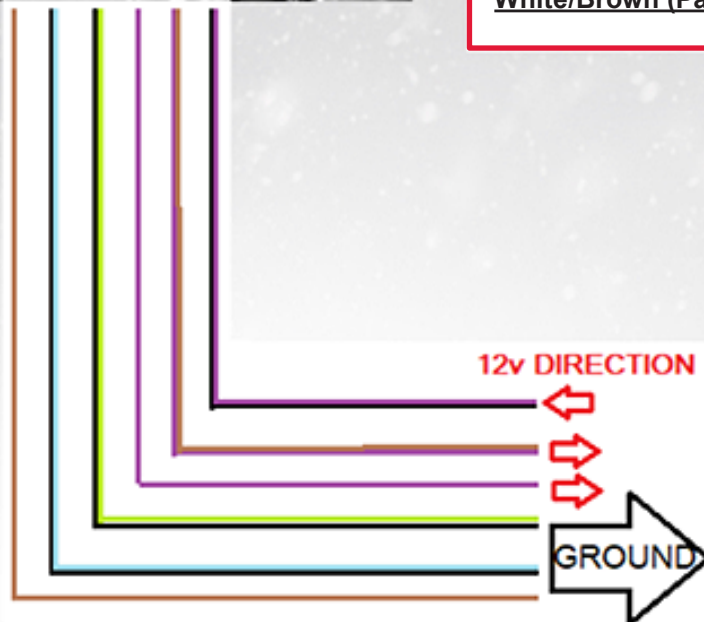
Violet/Brown (RT Turn) – 12V Output

White/Violet (LT Turn) – 12V Output

Black/LT Green (Low Beam) – Ground Output

Black/LT Blue (High Beam) – Ground Output

White/Brown (Park) – Ground Output



<u>OEM Supplied Wires</u>	<u>Plug-In Harness</u>
Black/Violet	Enable
Violet/Brown	RT Turn
White/Violet	LT Turn
Black/LT Green	Low Beam
Black/LT Blue	High Beam
	<u>Vehicle Light Harness</u>
White/Brown	Park
<u>Vehicle Light Harness</u>	<u>Plug-In Harness</u>
Brown	Park

LSD: LOW-SIDE DRIVE

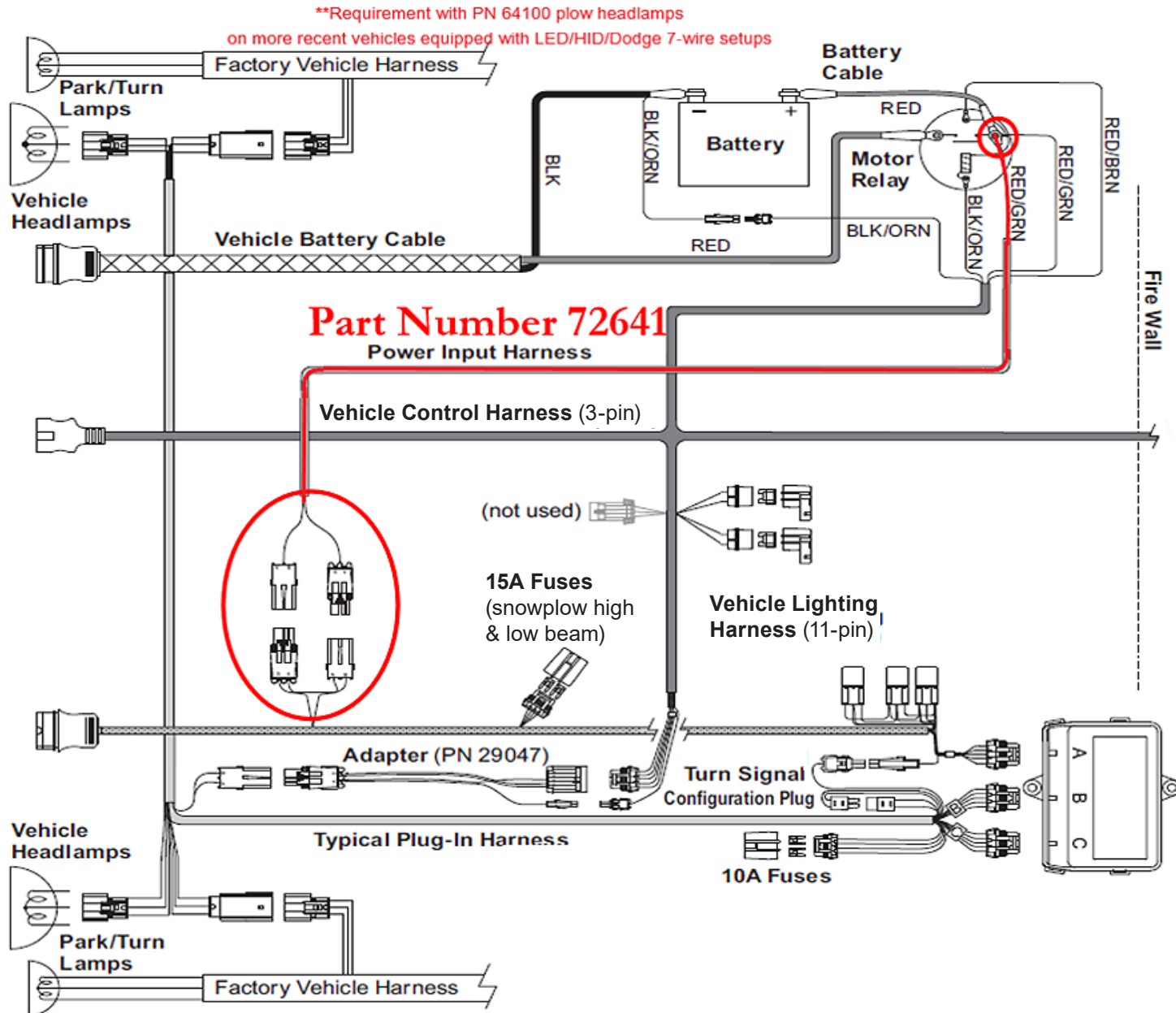
12V present on one terminal. Ground [Bat (-)] is applied to the second terminal to trigger relay/solenoid coil.

HSD: HIGH-SIDE DRIVE

Ground (Bat -) present on one terminal. 12V [Bat (+)] applied to the second terminal to trigger relay/solenoid coil.

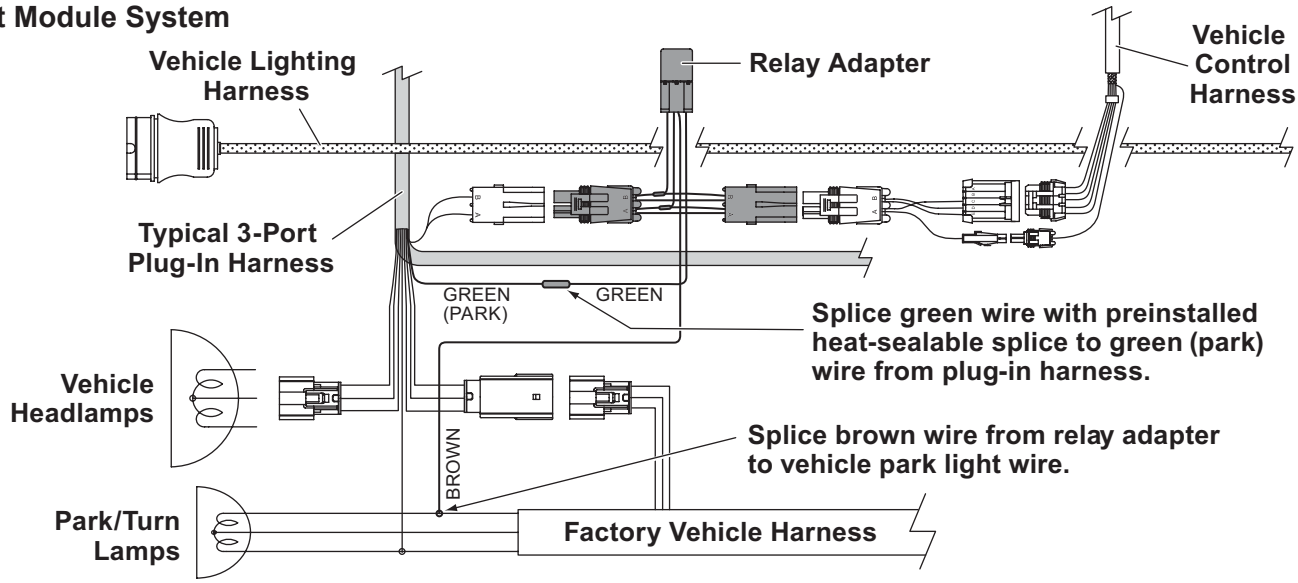
(EXCLUDES POWER WAGON)

69892-1 HARNESS KIT – 2015 DODGE RAM 2500–5500



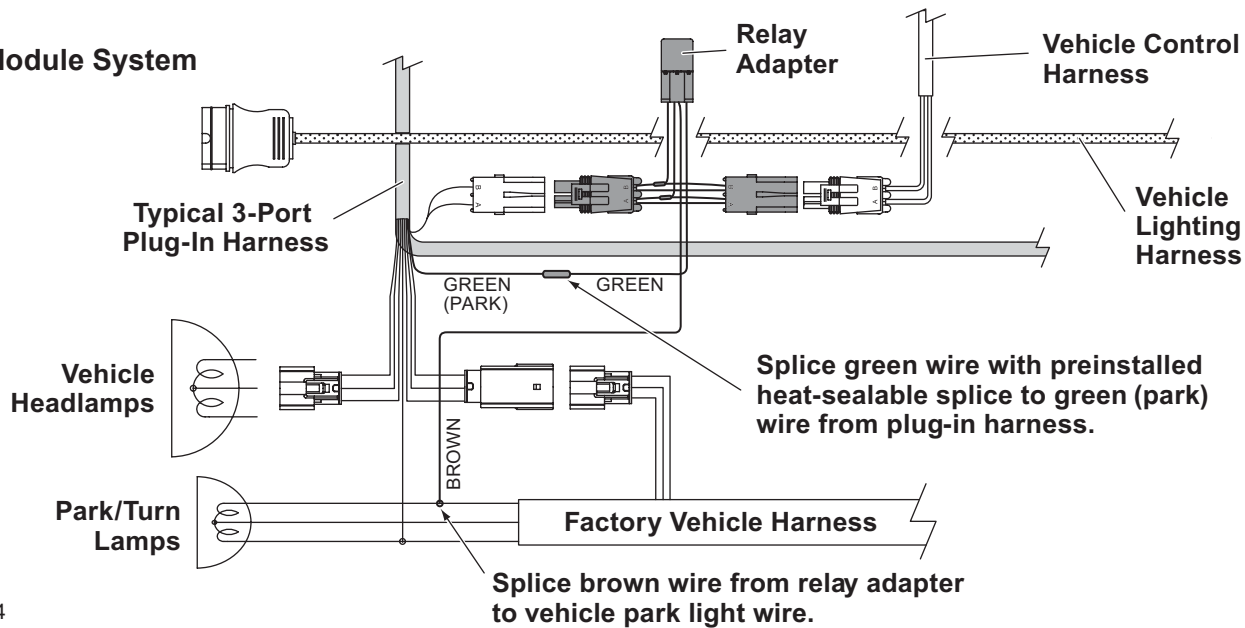
69826 RELAY ADAPTER KIT

Typical 2-Plug, 3-Port Module System



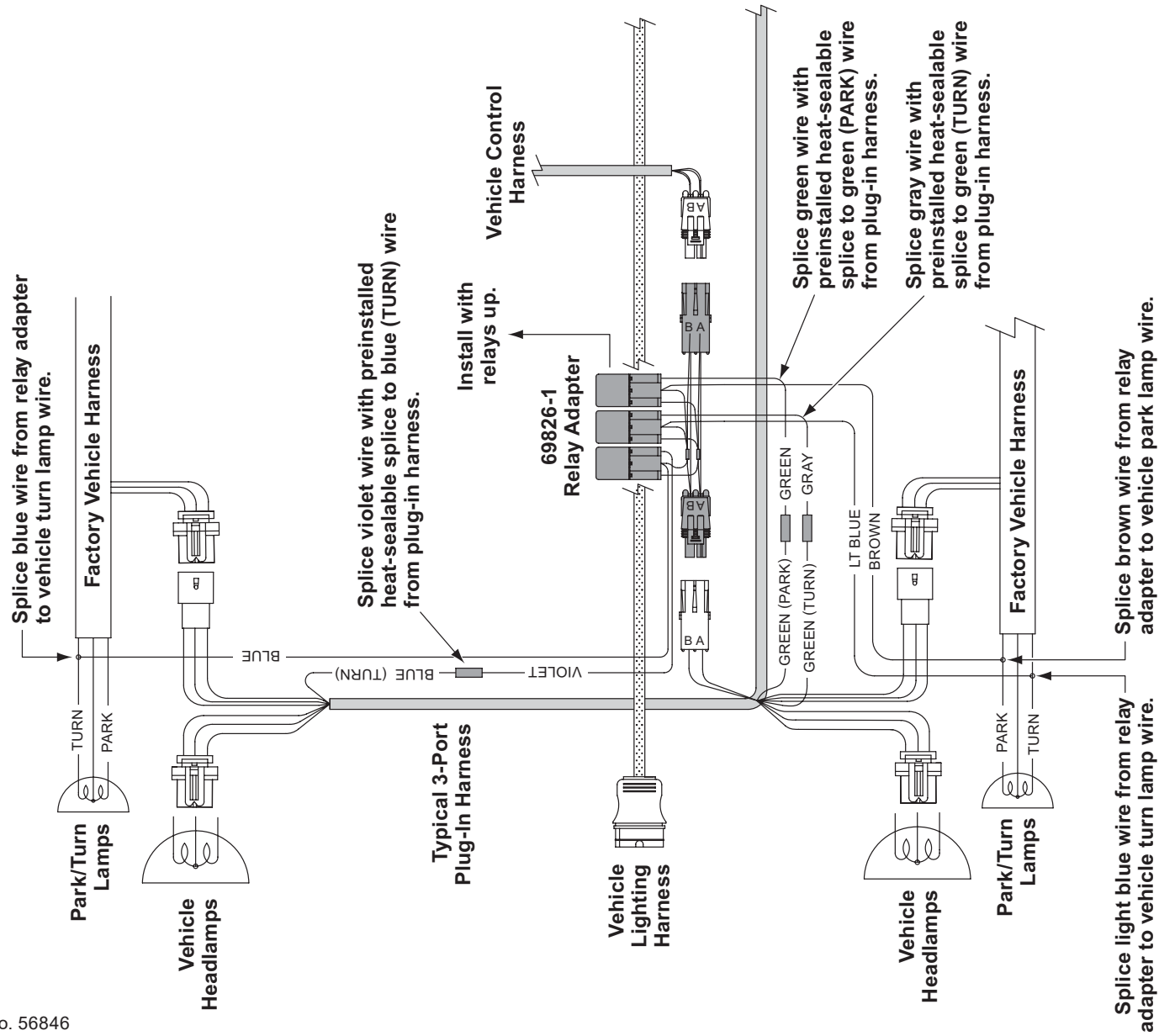
38

Typical 3-Plug, 3-Port Module System



Excerpts taken from Lit. No. 69824

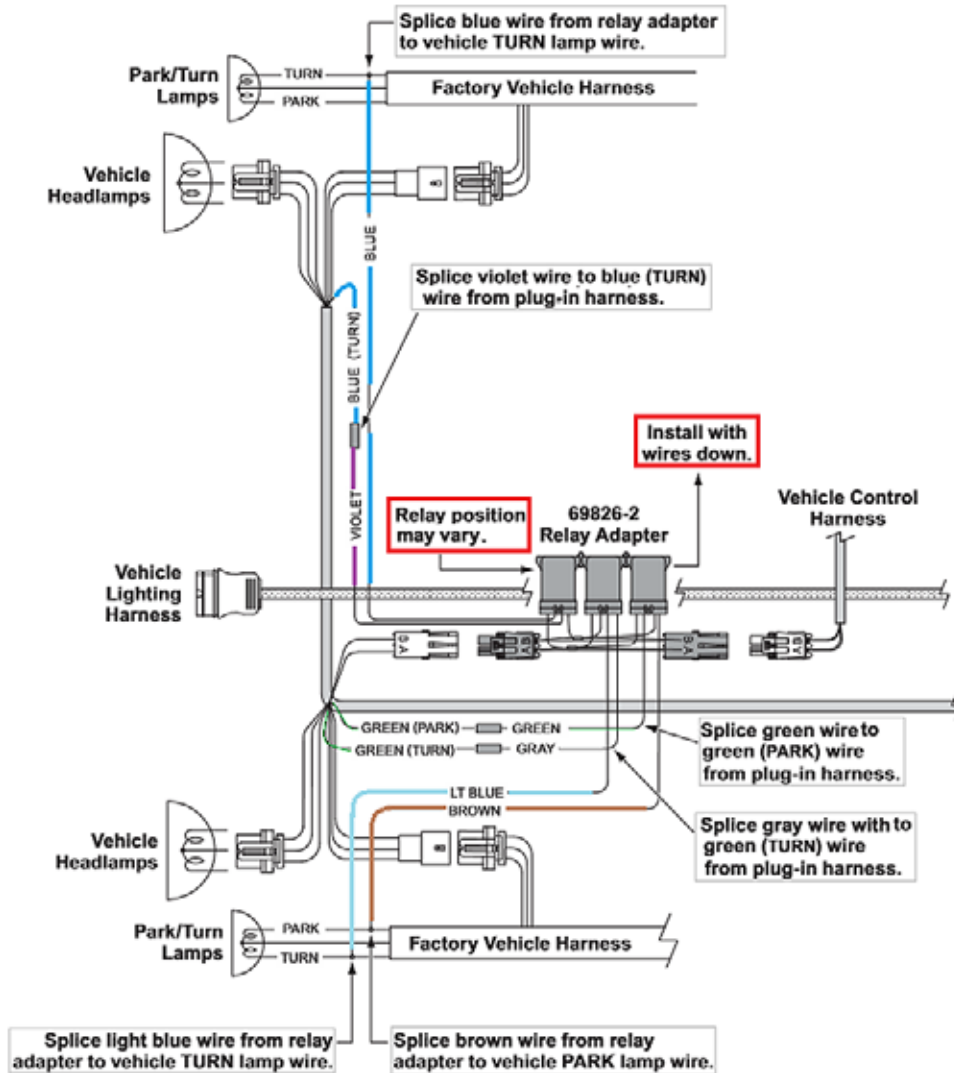
69826-1 RELAY ADAPTER KIT



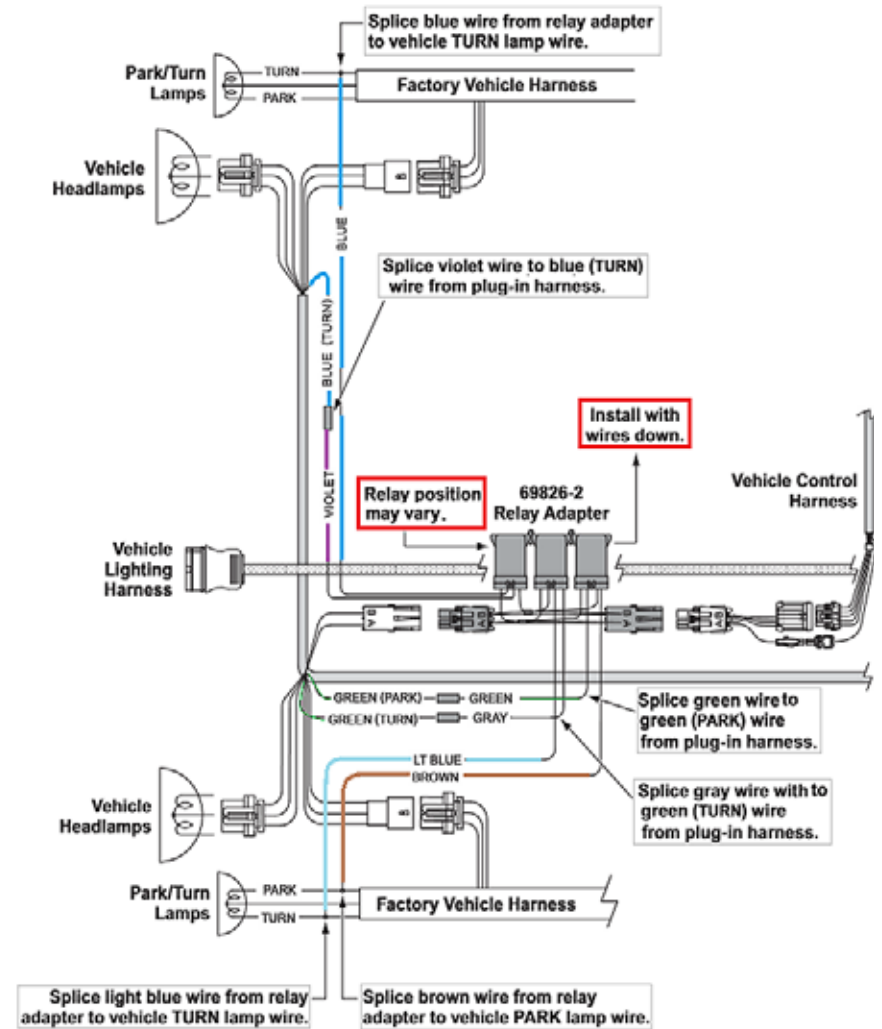
Excerpts taken from Lit. No. 56846

69826-2 RELAY ADAPTER KIT

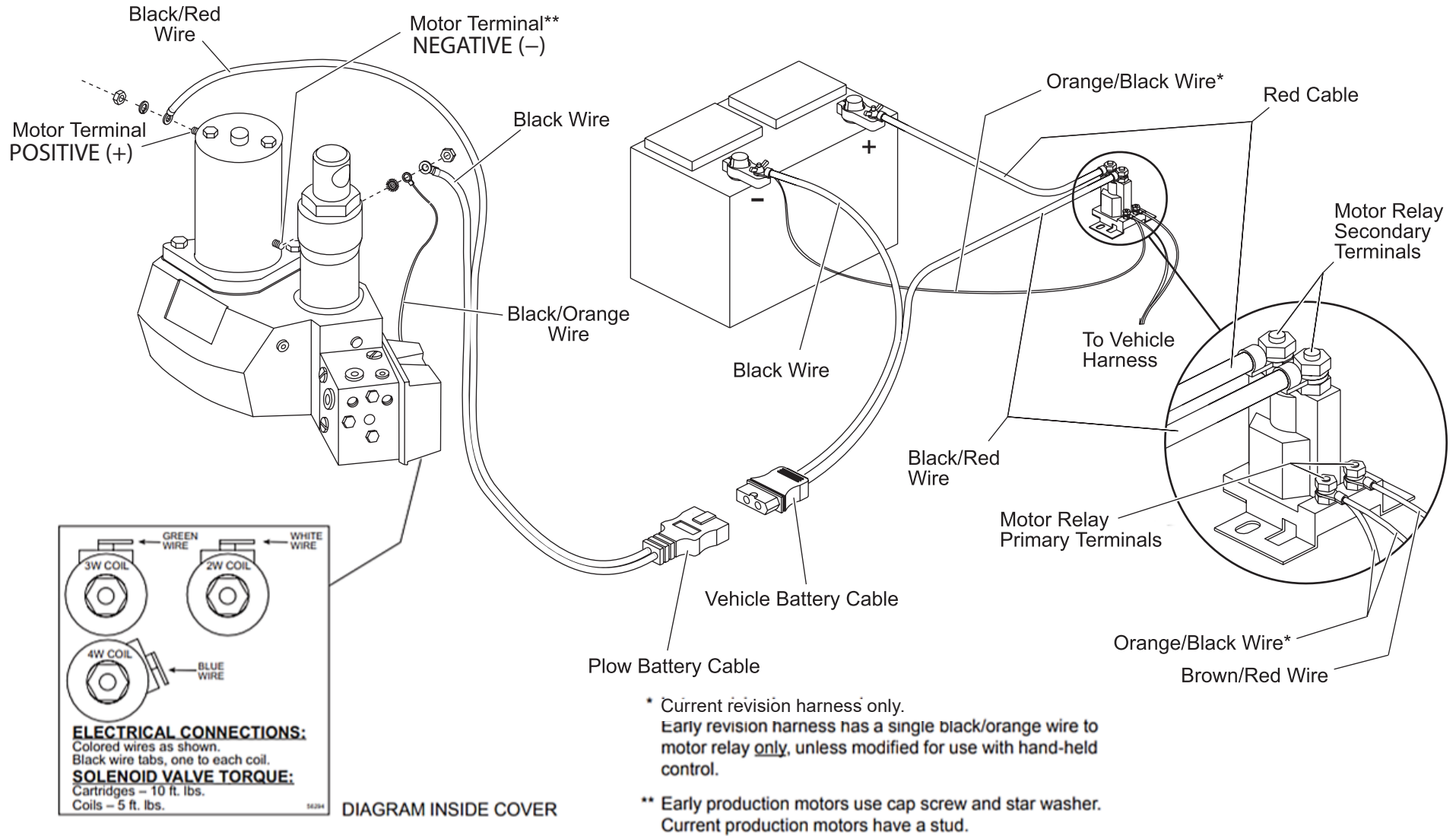
Typical 2-Plug, 3-Port Module System



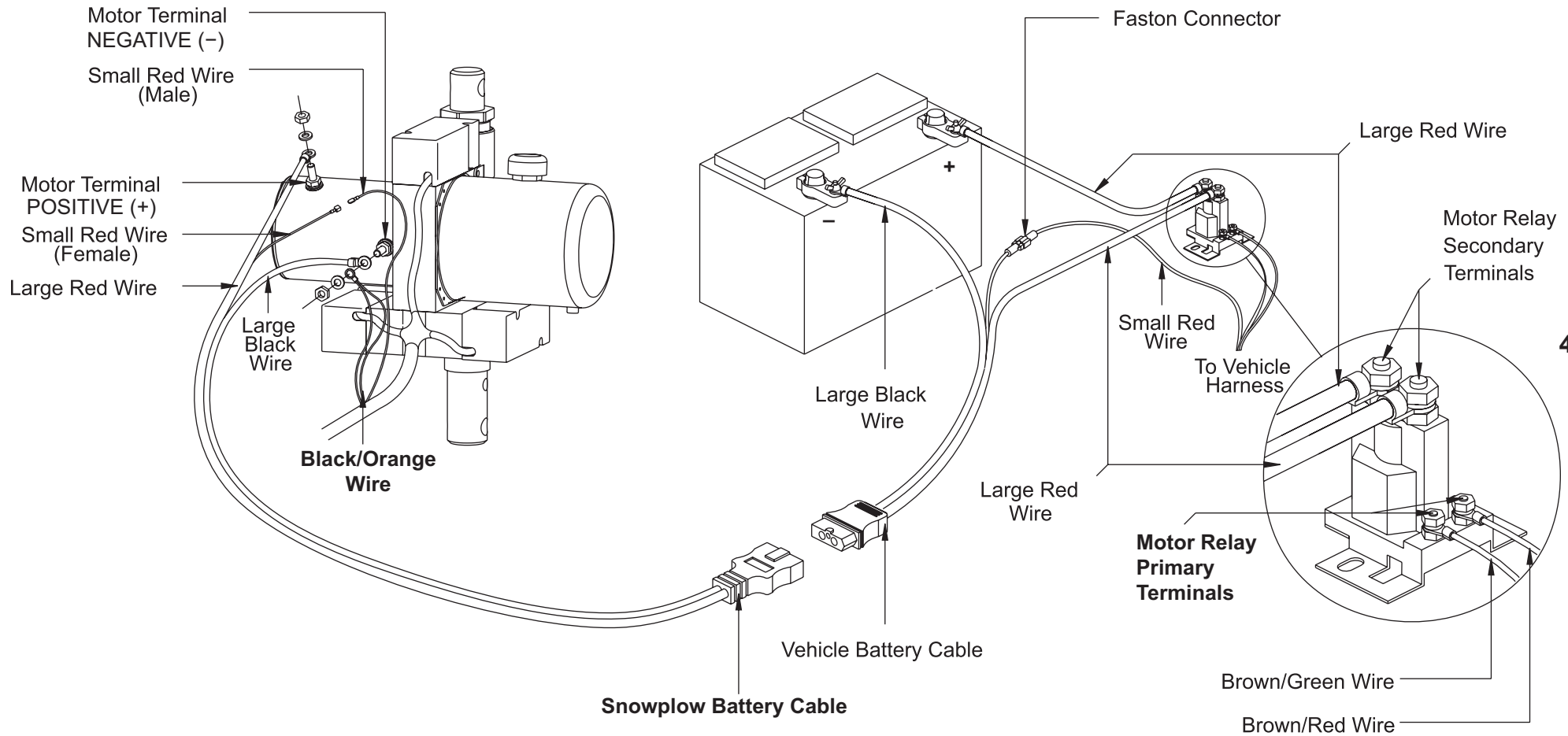
Typical 3-Plug, 3-Port Module System



UniMount® ISARMATIC® SYSTEM – MOTOR AND MOTOR RELAY TEST DIAGRAM



UniMount® FloStat® SYSTEM – MVP® SNOWPLOWS – MOTOR AND MOTOR RELAY TEST DIAGRAM



Excerpts taken from Lit. No. 21936

Lit. No. 74230, Rev. 01

January 1, 2021

UniMount® FloStat® SYSTEM – MVP® SNOWPLOWS – CONTROL TEST

⚠ CAUTION

Printed circuit board (PCB) is subject to damage from static electricity. Follow instructions below to safely handle PCB.

To safely handle PCB:

1. Place control on its side and remove top half of handle, leaving the PCB in lower half.
2. Remove PCB from housing by only touching the edges of the PCB.
3. Touch a clean finger to metal part of fuse "F2".
4. PCB is now safe to handle as long as contact with it is maintained.

Test Procedure

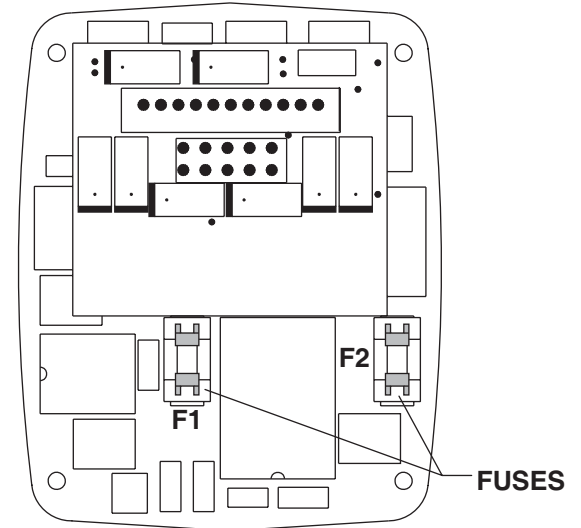
1. Disconnect the control in the cab and remove to bench.
2. Remove control handle half to access internal components.
3. Refer to diagram for fuse location.

NOTE: Fuse F1 is for motor relay, S1, S2, and S3 solenoid coils. Fuse F2 is for S4, S5, and S6 solenoid coils.

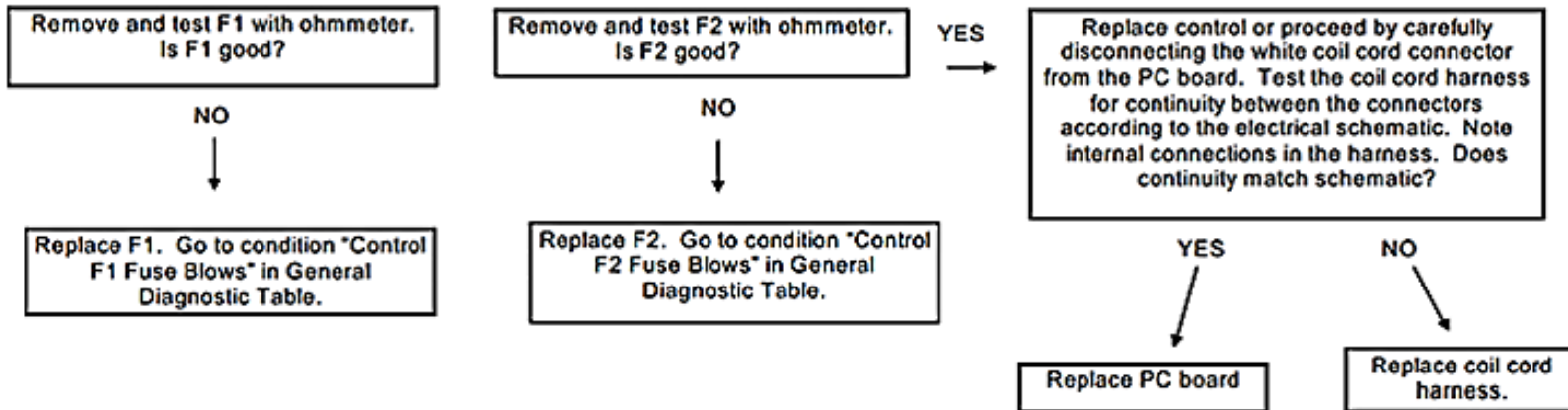
Fuse Kit: 69190

Repair Pin Kit: 22123

V-Plow Connector: 56496

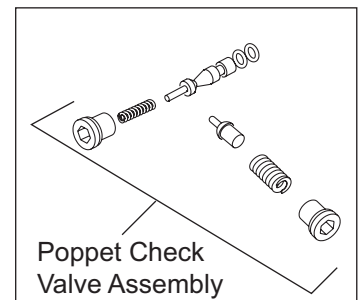
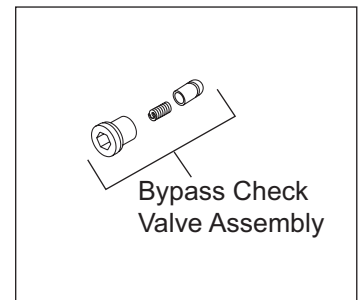
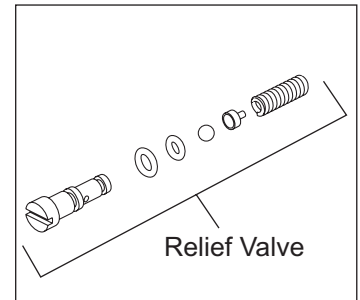
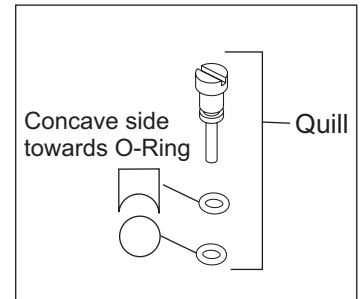
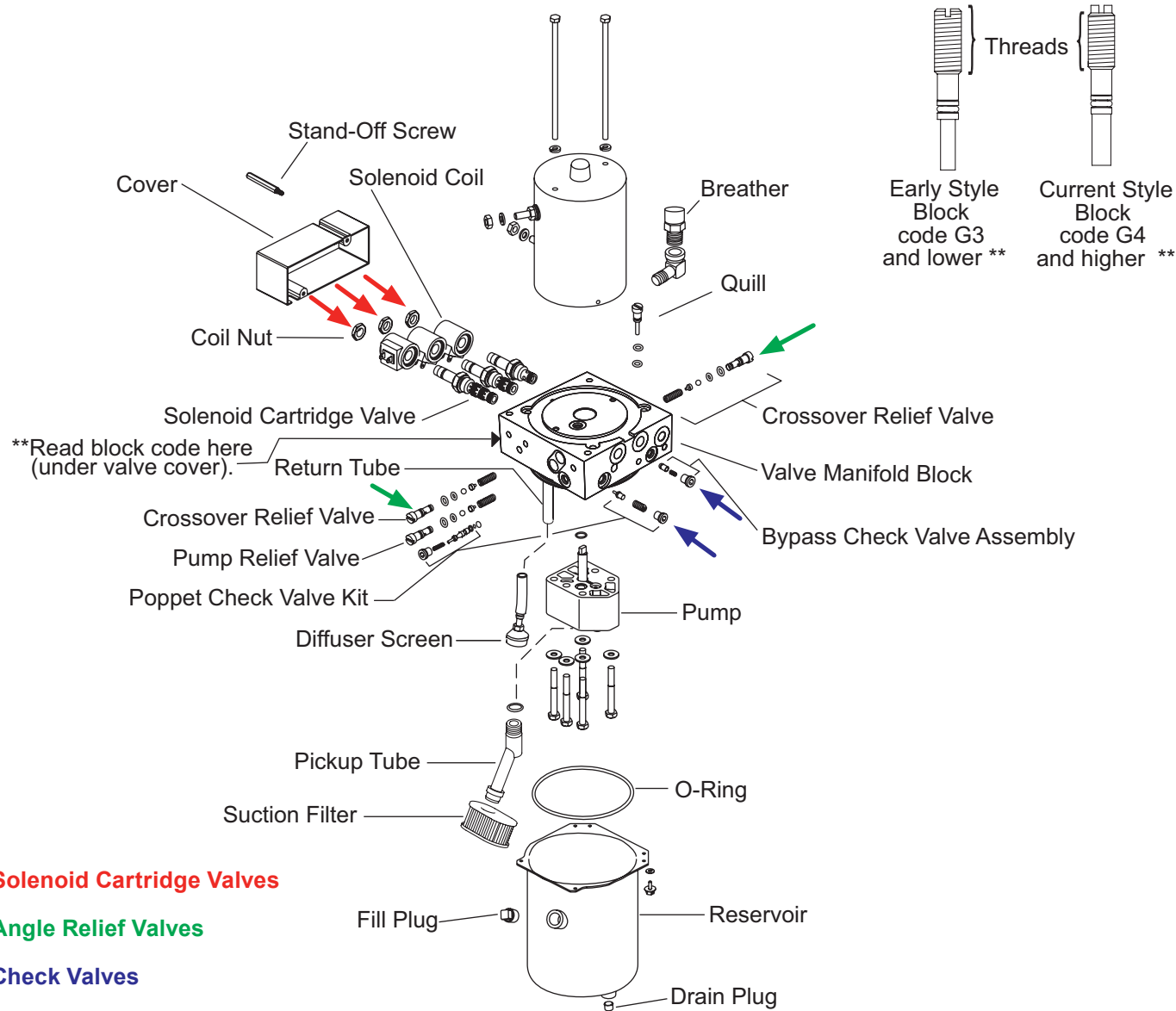


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Hydraulic

FloStat® HYDRAULIC UNIT BREAKDOWN



3 – Solenoid Cartridge Valves

2 – Angle Relief Valves

2 – Check Valves

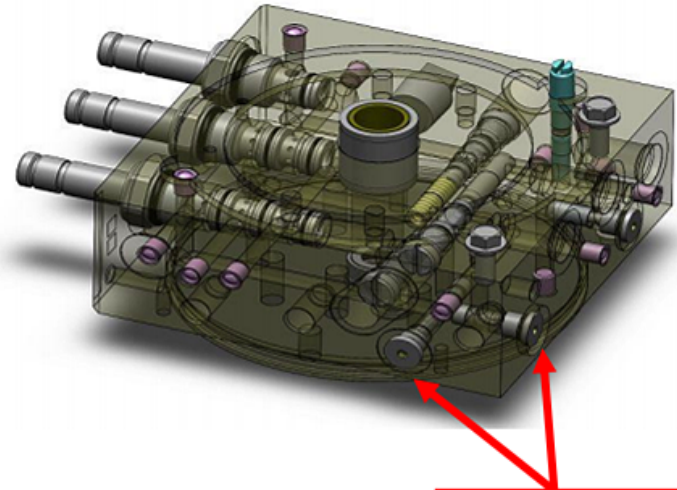
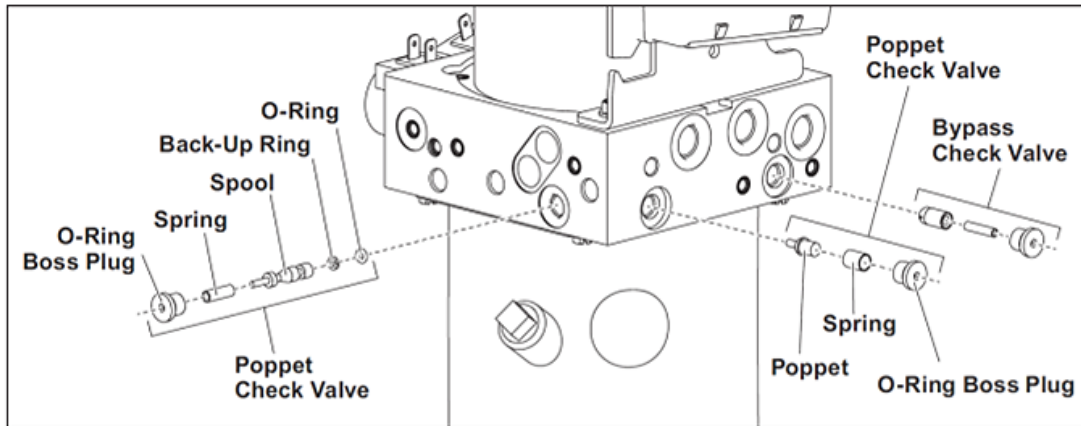
Excerpts taken from Lit. No. 27097

Lit. No. 74230, Rev. 01

January 1, 2021

FloStat® PILOT-OPERATED (POPPET-STYLE) VALVE

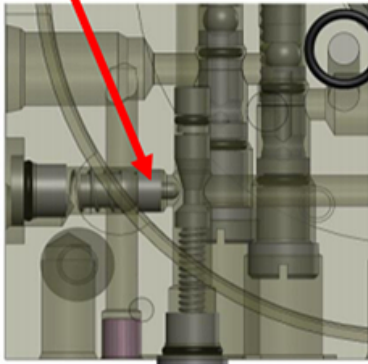
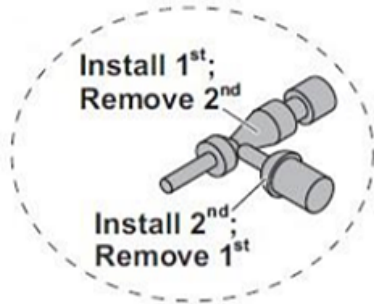
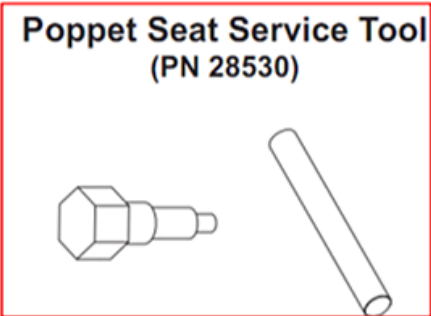
PILOT-OPERATED (POPPET-STYLE) CHECK VALVES



Poppet Check Valve Assembly

Poppet Check Valve Seat

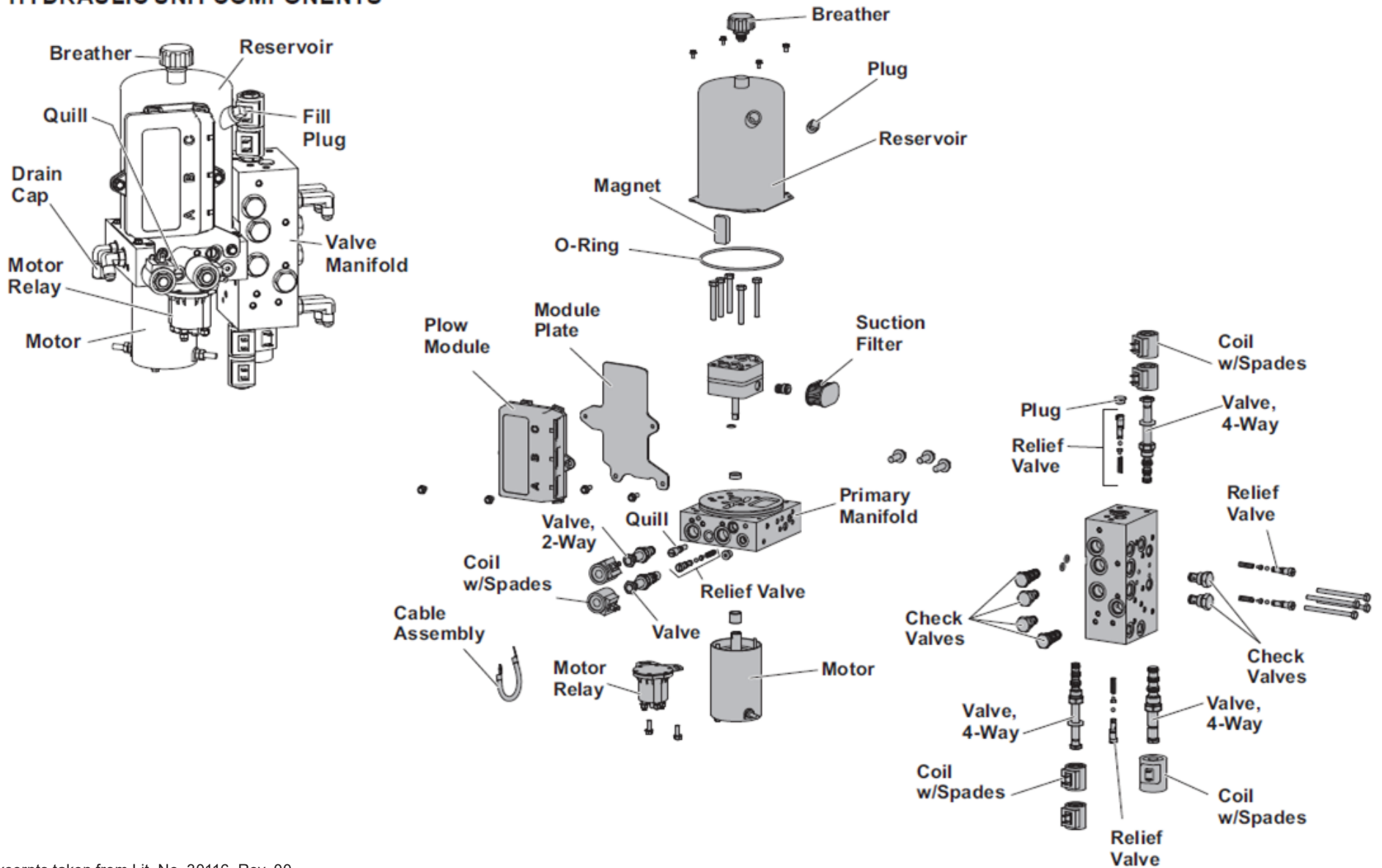
What is the symptom(s) if the poppet check valve is not functioning properly?
If not fully seated, symptom will be slow/no angle LEFT, no angle RIGHT.



Excerpts Taken From LIT NO. 27097

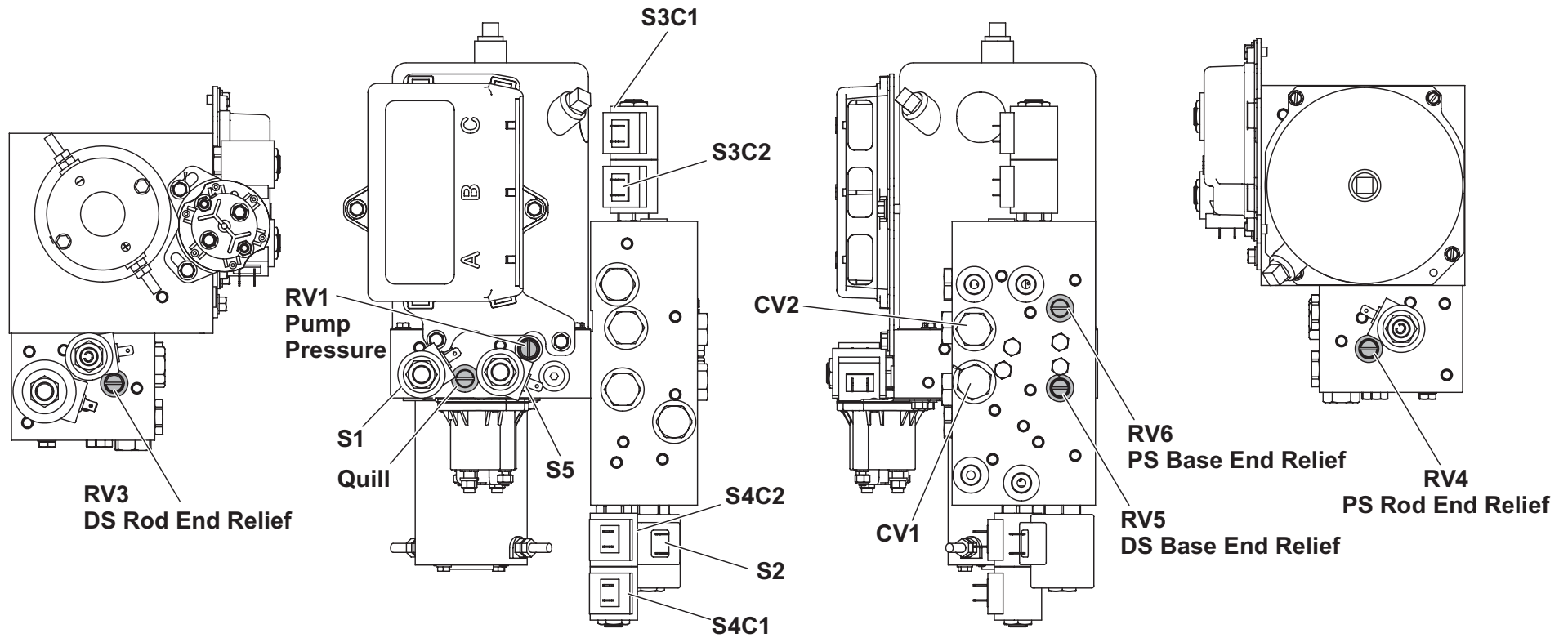
UltraMount® 2 ENFORCER™ V-PLOW – HYDRAULIC SYSTEM

HYDRAULIC UNIT COMPONENTS



UltraMount® 2 ENFORCER™ V-PLOW – HYDRAULIC SYSTEM

VALVE LOCATION



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Solenoid Cartridge Valves		
Coil	Valve Type	Wire Color
S1	SV08-2004	Blue
S2	SV10-43	Dark Green
S3C1	SV08-47C	Brown
S3C2	SV08-47C	White
S4C1	SV08-47C	Purple
S4C2	SV08-47C	Orange
S5	SVCV08-20	Yellow

UltraMount® / UltraMount® 2 – MVP PLUS™ & MVP 3™ SNOWPLOWS

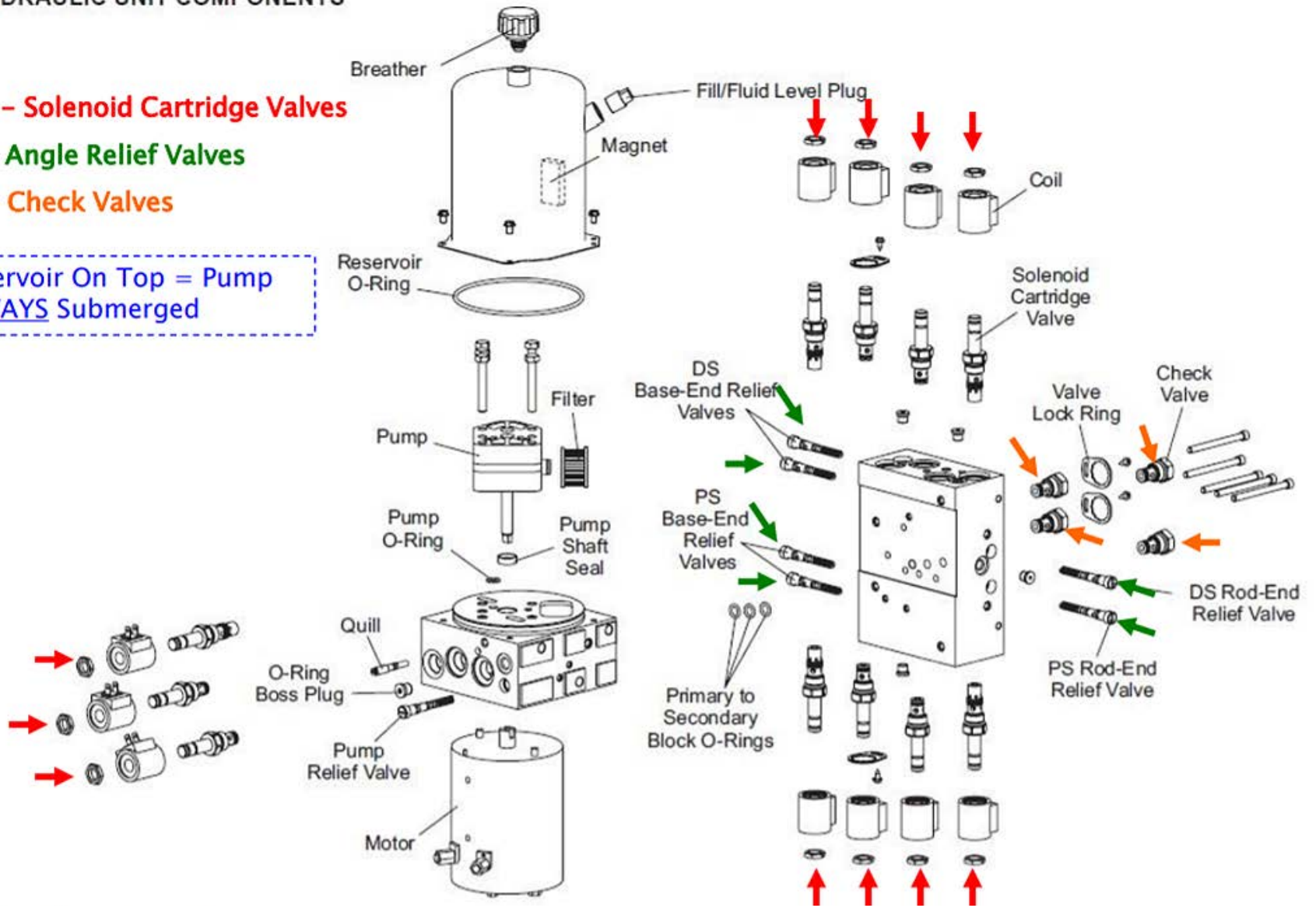
HYDRAULIC UNIT COMPONENTS

11 – Solenoid Cartridge Valves

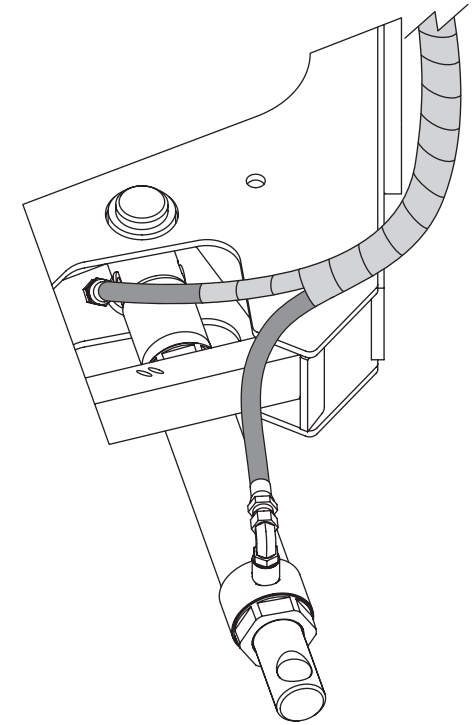
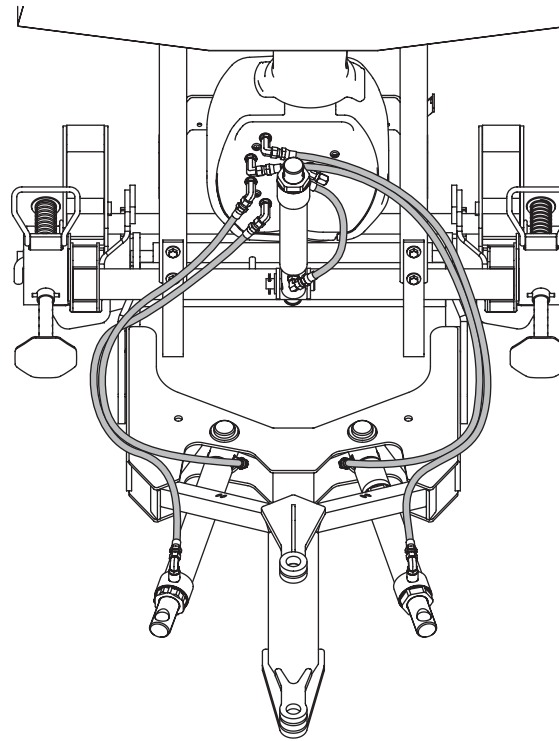
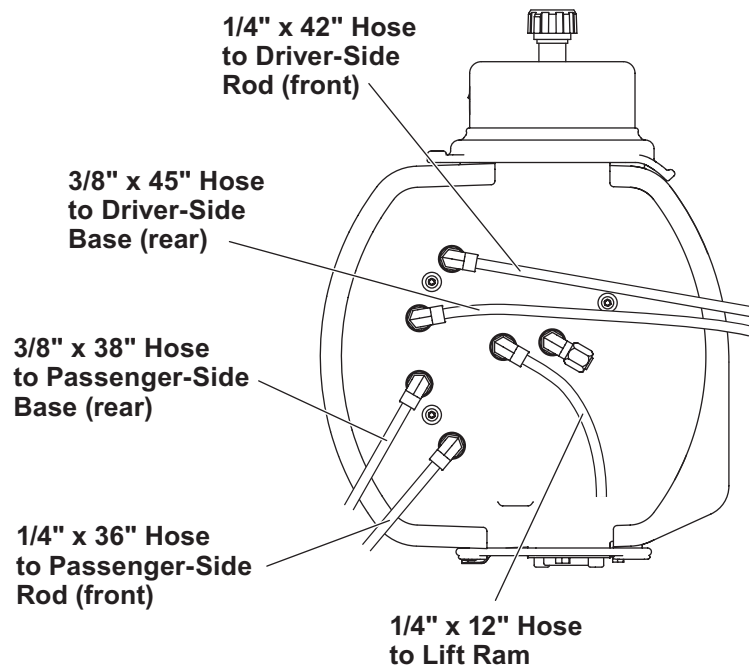
6 – Angle Relief Valves

4 – Check Valves

Reservoir On Top = Pump
ALWAYS Submerged



MVP PLUS™ & MVP 3™ SNOWPLOW – HOSE ROUTING



UltraMount® / UltraMount® 2 – WIDE-OUT™ & WIDE-OUT™ XL SNOWPLOWS

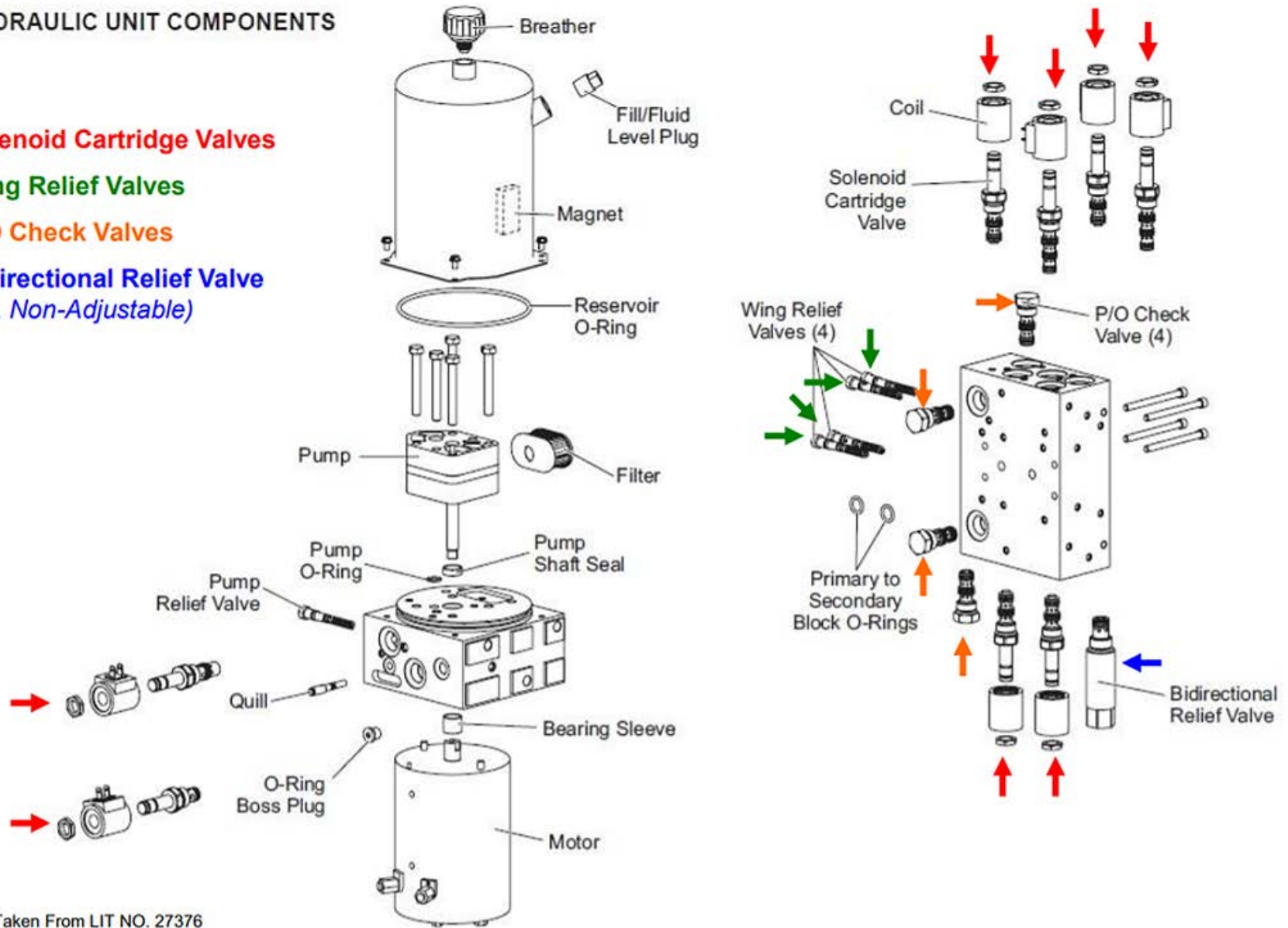
HYDRAULIC UNIT COMPONENTS

8 - Solenoid Cartridge Valves

4 - Wing Relief Valves

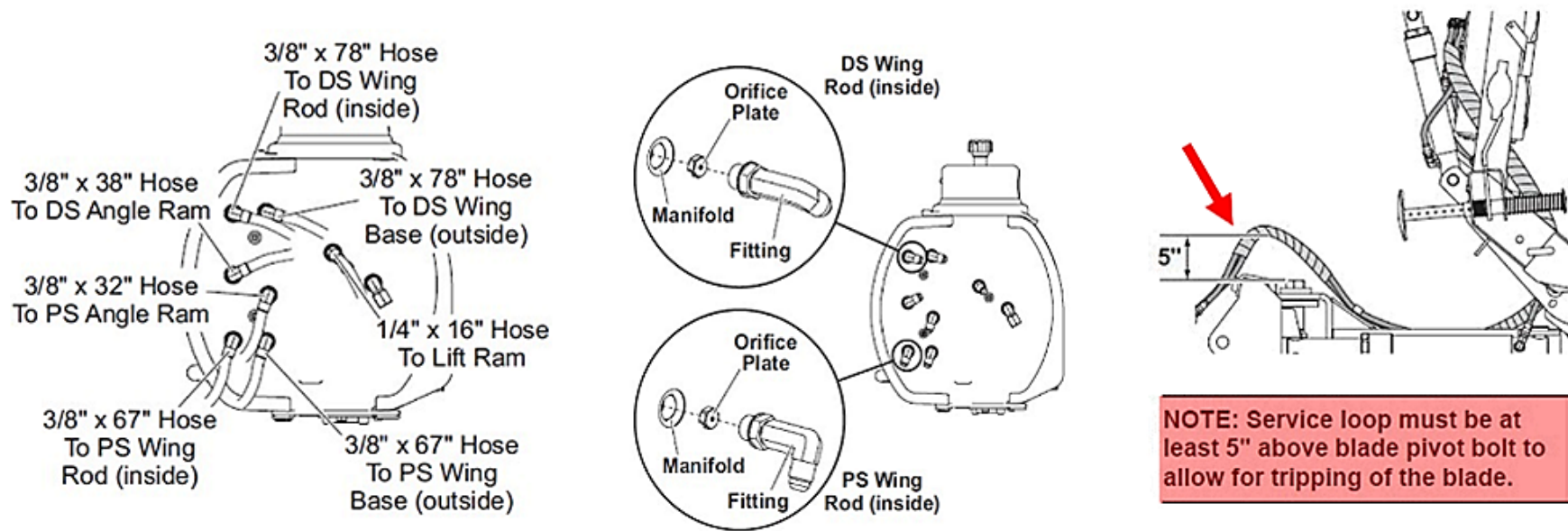
4 - P/O Check Valves

1 - Bidirectional Relief Valve
(Angle, Non-Adjustable)



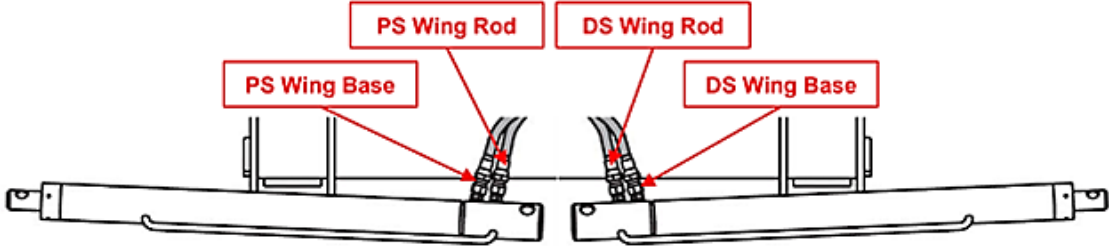
Excerpts Taken From LIT NO. 27376

WIDE-OUT™ SNOWPLOW – HOSE ROUTING



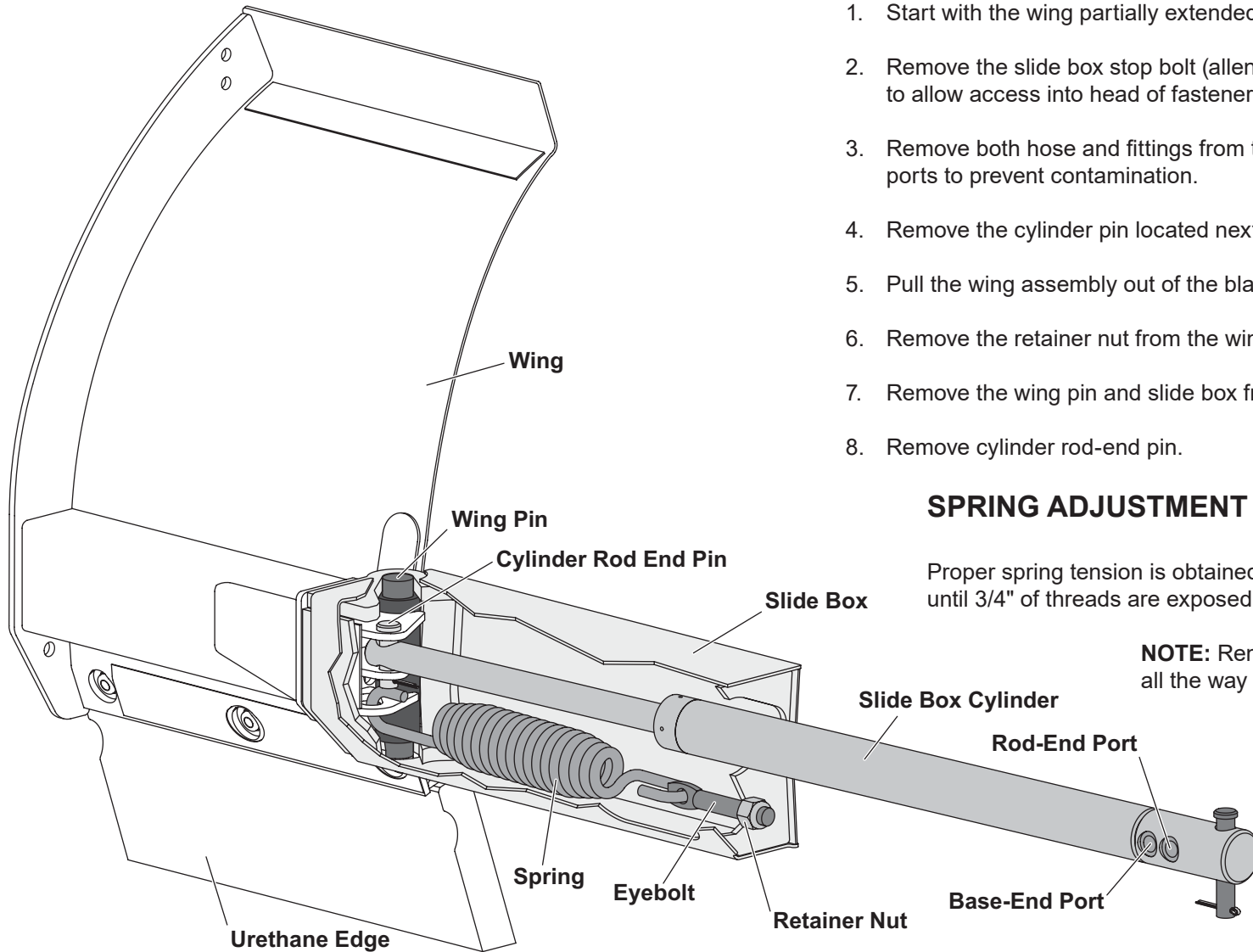
★ WESTERN® Snowplow Pre-Delivery Inspection ★

Orifice Plates allow free flow in one direction and restrict flow in the opposite direction
(Eliminates Wing Chatter During Retract Function)



Excerpts Taken From LIT NO. 27376

SLIDE BOX & WING REMOVAL



SLIDE BOX AND WING REMOVAL

1. Start with the wing partially extended (mid-stroke).
2. Remove the slide box stop bolt (allen wrench size may require modification to allow access into head of fastener).
3. Remove both hose and fittings from the slide box cylinder and cap off ports to prevent contamination.
4. Remove the cylinder pin located next to the fittings.
5. Pull the wing assembly out of the blade frame and place on work bench.
6. Remove the retainer nut from the wing spring eyebolt and remove.
7. Remove the wing pin and slide box from the wing assembly.
8. Remove cylinder rod-end pin.

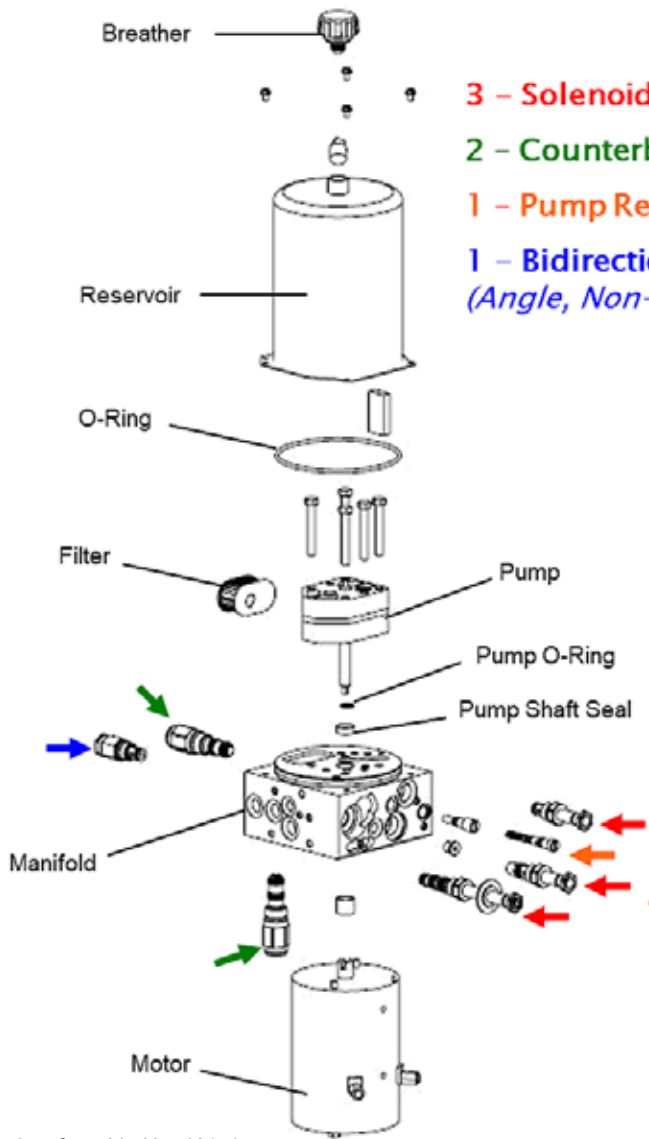
53

SPRING ADJUSTMENT

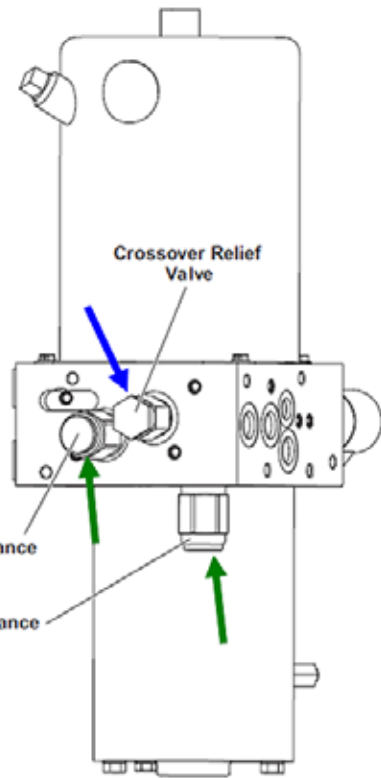
Proper spring tension is obtained by tightening the eyebolt retainer nut until 3/4" of threads are exposed beyond the top of the locknut.

NOTE: Remove wing stop bolt and extend wing all the way to remove blade/wing cutting edge(s).

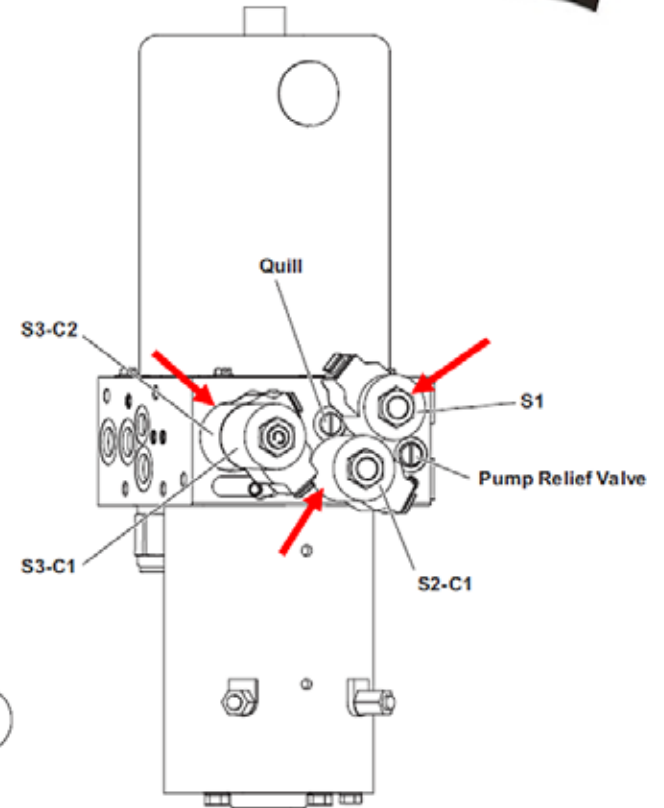
UltraMount® 2 – PRODIGY™ SNOWPLOWS



- 3 – Solenoid Cartridge Valves**
- 2 – Counterbalance Valves**
- 1 – Pump Relief**
- 1 – Bidirectional Relief Valve**
(Angle, Non-Adjustable)

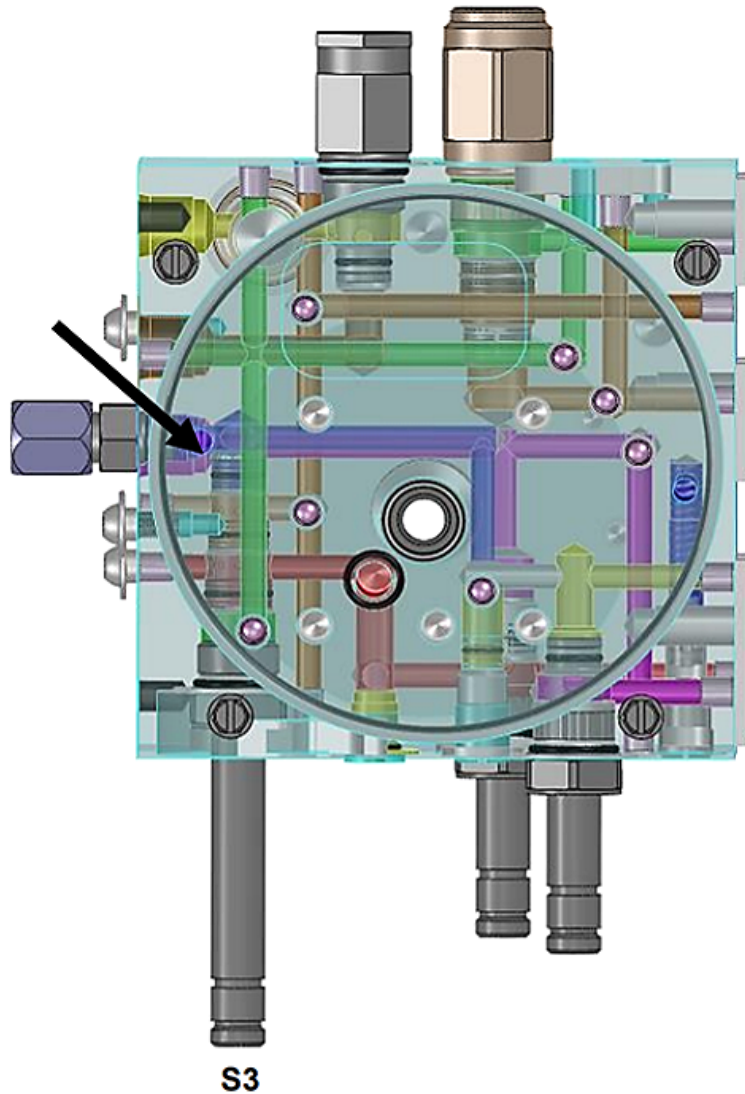


VALVE LOCATIONS



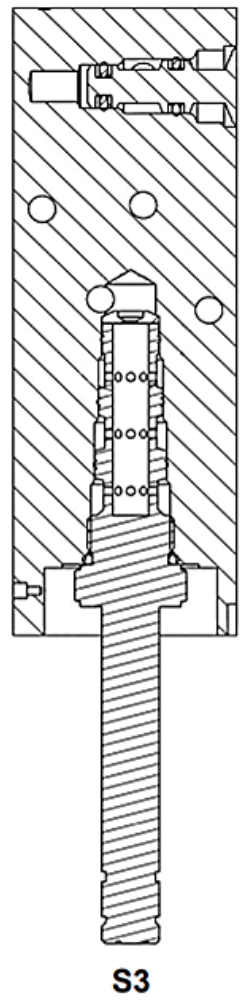
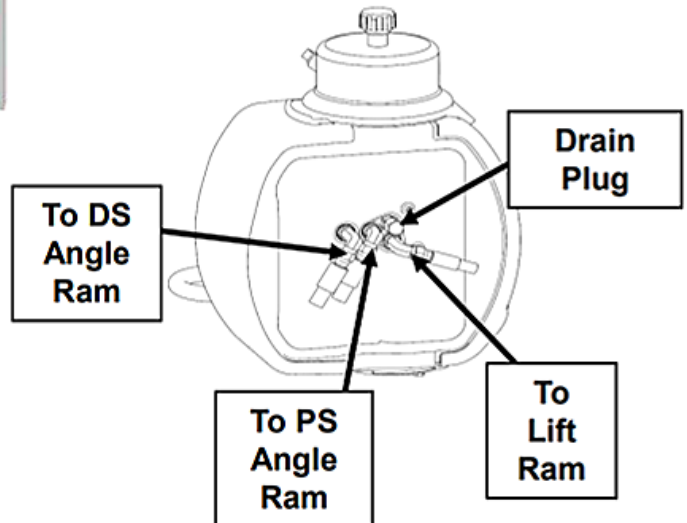
Valve	Type
S1	SV08-2004
S2	SVCV08-20
S3	SV08-47C
RV3	Pump Relief Valve (2250 psi)
CBV1 CBV2	Counterbalance Valve CB10-30
CRL	Crossover Relief Valve (4000 psi)

UltraMount® 2 PRODIGY™ ORIFICE PLATE & HOSE ROUTING

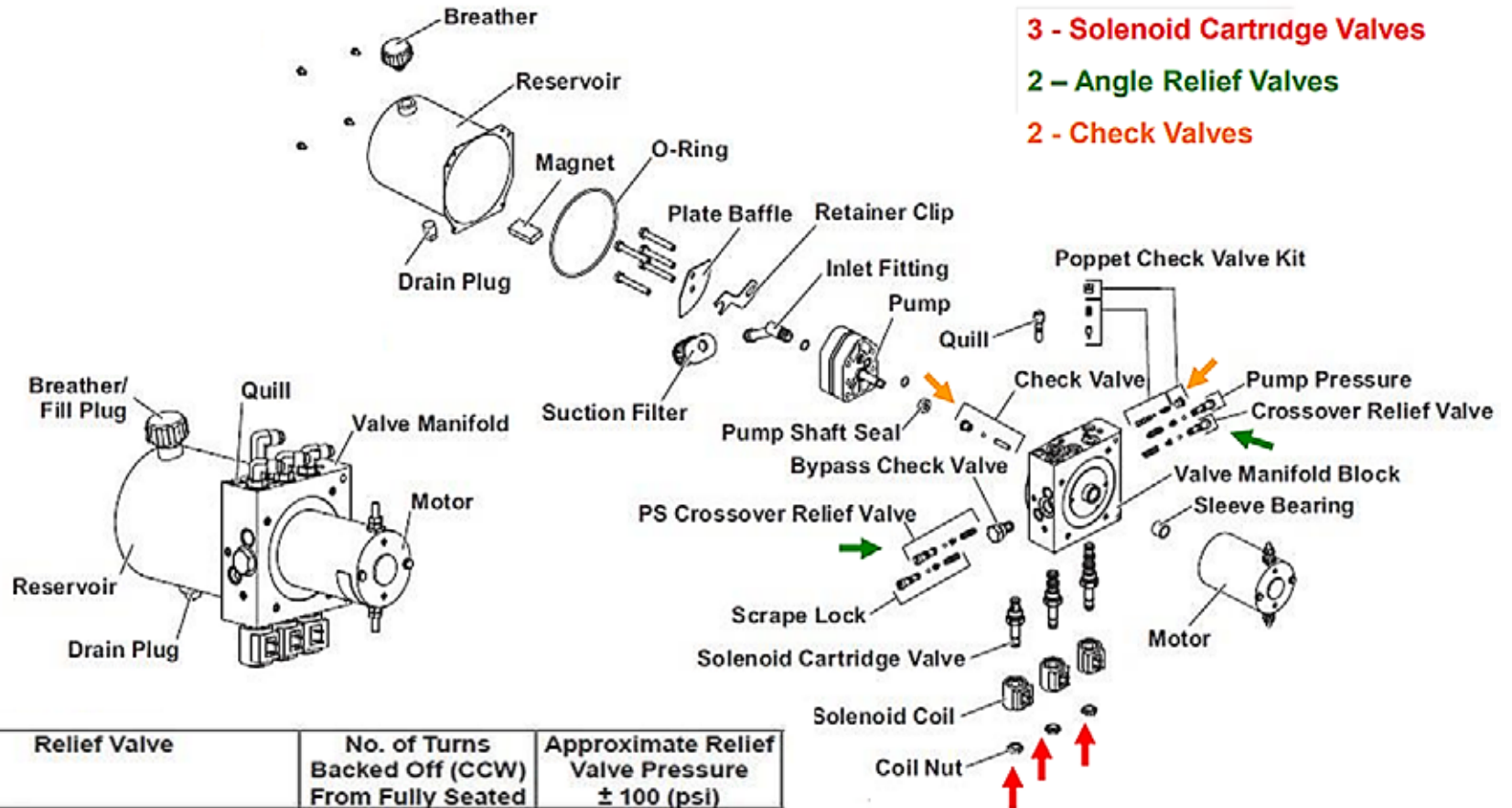


Excerpts Taken From LIT NO. 48174

Orifice is positioned in the bottom of the manifold valve port S3 face down.



UltraMount® 2 STRAIGHT BLADE – HTS™, DEFENDER™, Suburbanite™, IMPACT™ SNOWPLOWS



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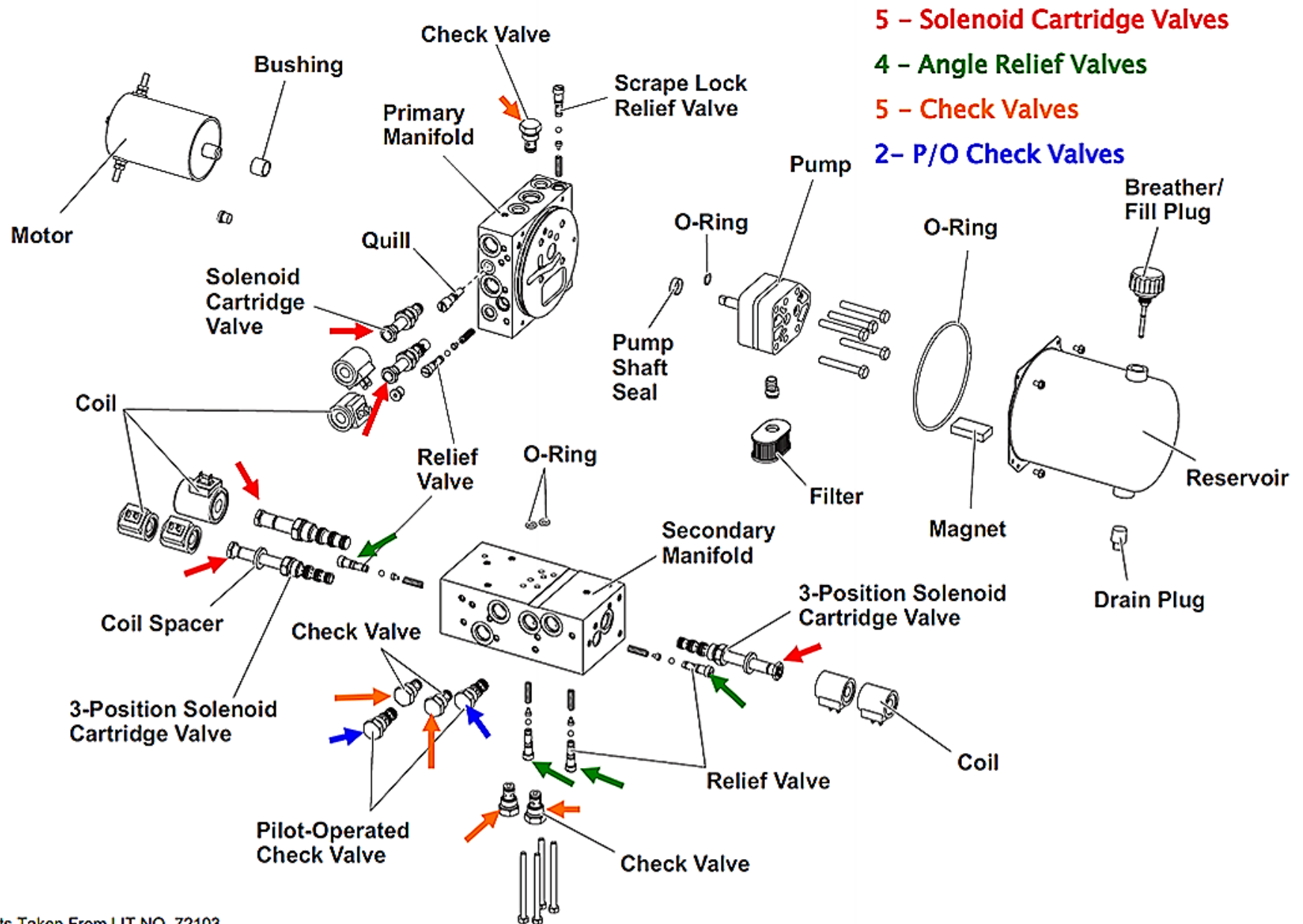
Relief Valve	No. of Turns Backed Off (CCW) From Fully Seated	Approximate Relief Valve Pressure ± 100 (psi)
C – Pump Relief*	2-1/2 – 2-3/4	1650
A & B – Angle Cylinder Crossover Relief	1 – 1-1/4	4000
D – Scrape Lock	1/2 – 3/4	350

* See Pump Pressure Test to measure actual pump relief pressure.

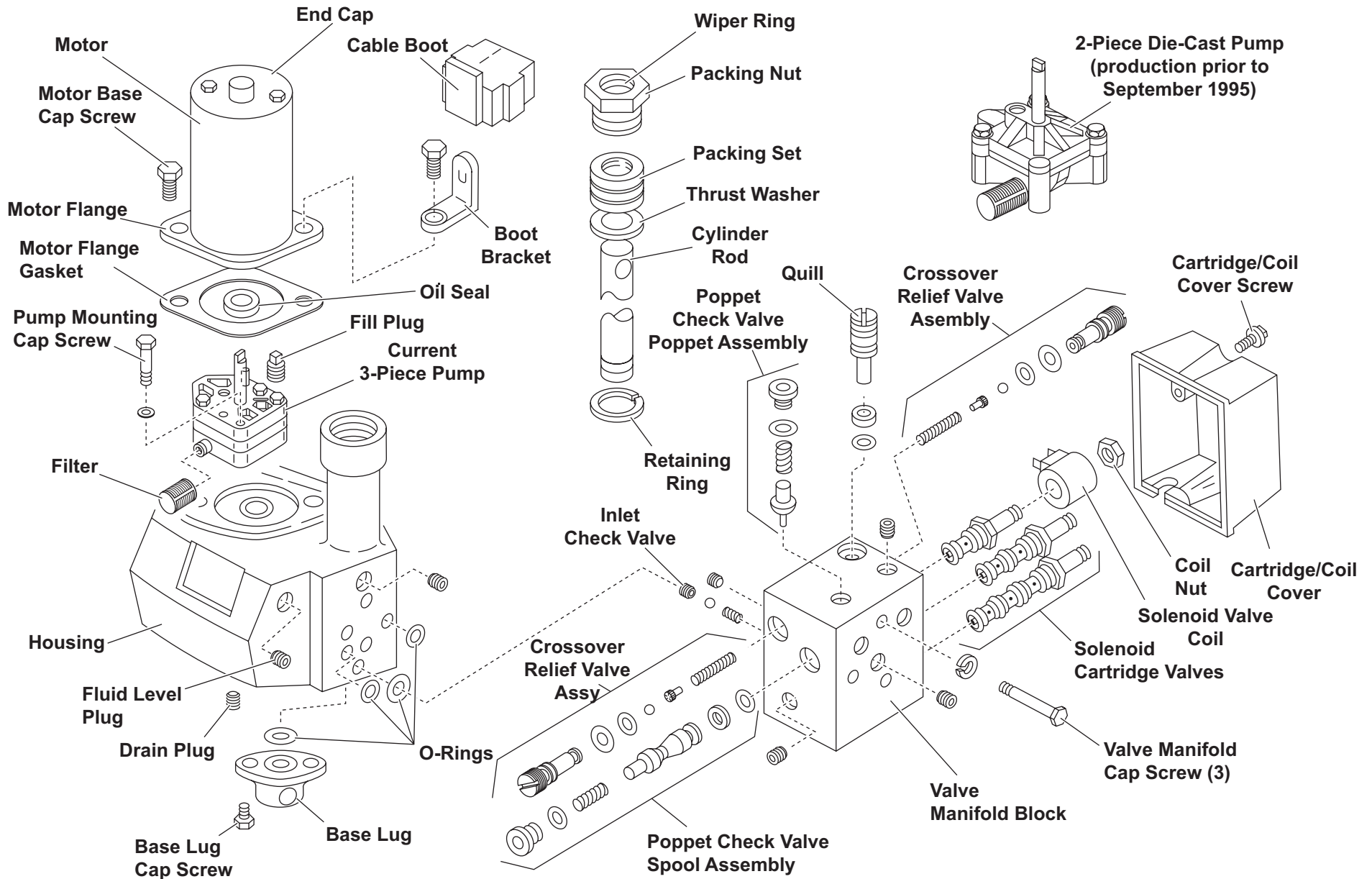
NOTE: Relief Valve Service: Apply one drop of low-strength threadlocker to all relief valve stems. The spring for relief valve D is different from the other springs and should not be interchanged. Spring is made of a lighter wire and is gold in color.

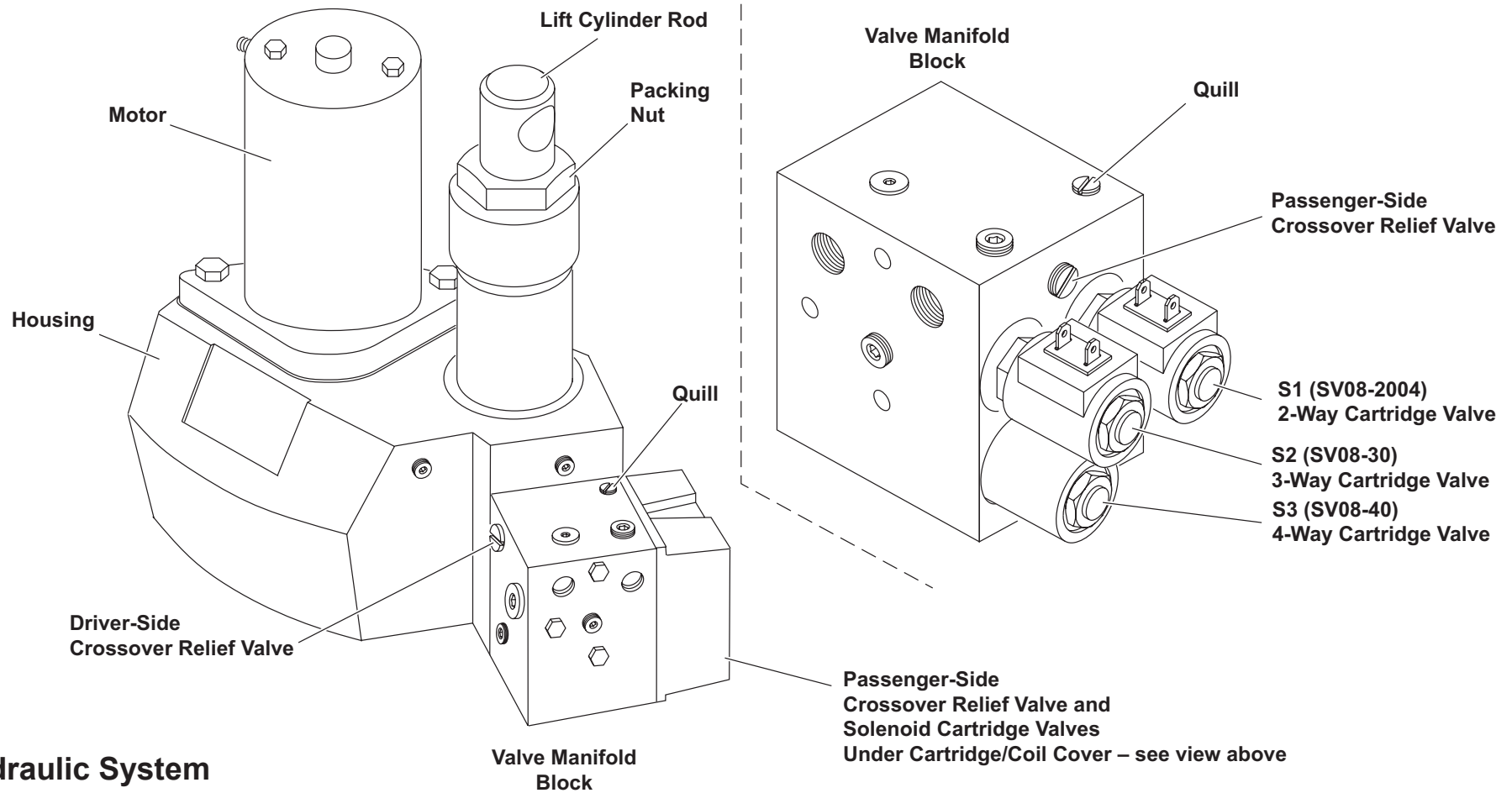
Excerpts Taken From LIT NO. 41467

IMPACT™ V-PLOW



ISARMATIC® HYDRAULIC UNIT PARTS DIAGRAM





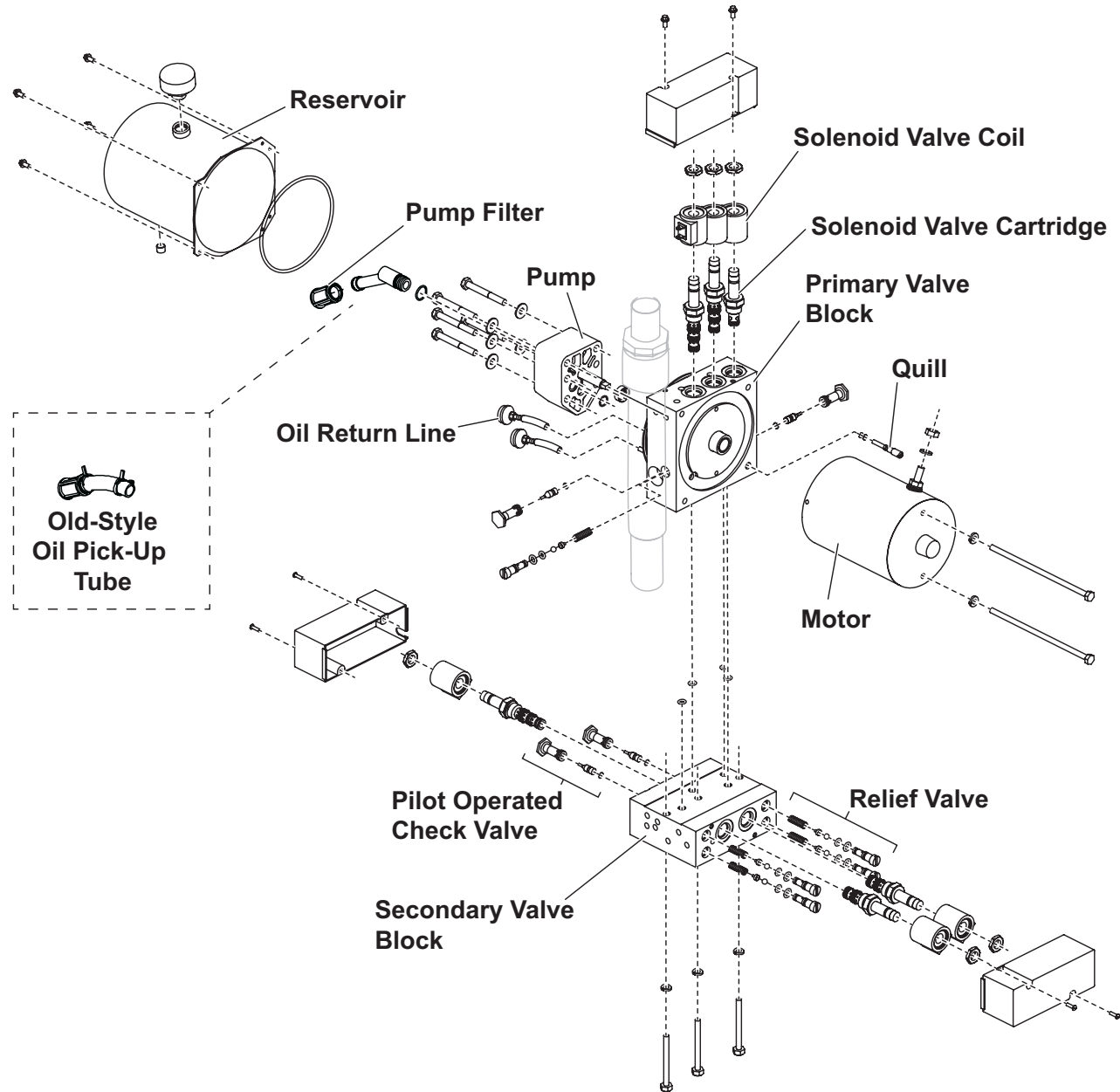
Hydraulic System

Snowplow Type	Crossover Relief Valve Pressure (± 100 psi)	No. of Turns Crossover Relief Valve is Backed Off (CCW) from Fully Seated*	Pump Relief Valve Pressure (± 100 psi)	Max. Motor Amperage Draw at Relief Pressure**
Standard, PRO-PLOW®, L3X	3500	1-1/2 – 2	1750	200
HEAVYWEIGHT	3500	1-1/2 – 2	1900	210
Sport Utility	2500	2-1/4 – 2-3/4	1550	180

* Settings are approximate.

** Actual readings may vary due to vehicle battery voltage and oil temperature.

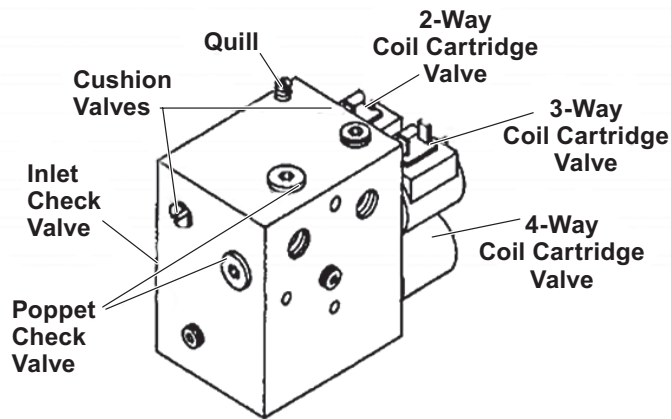
UniMount® FloStat® SYSTEM – MVP® SNOWPLOWS



SOLENOID ISARMATIC® MARK IIIa ASSEMBLY DIAGRAM

CUSHION VALVES

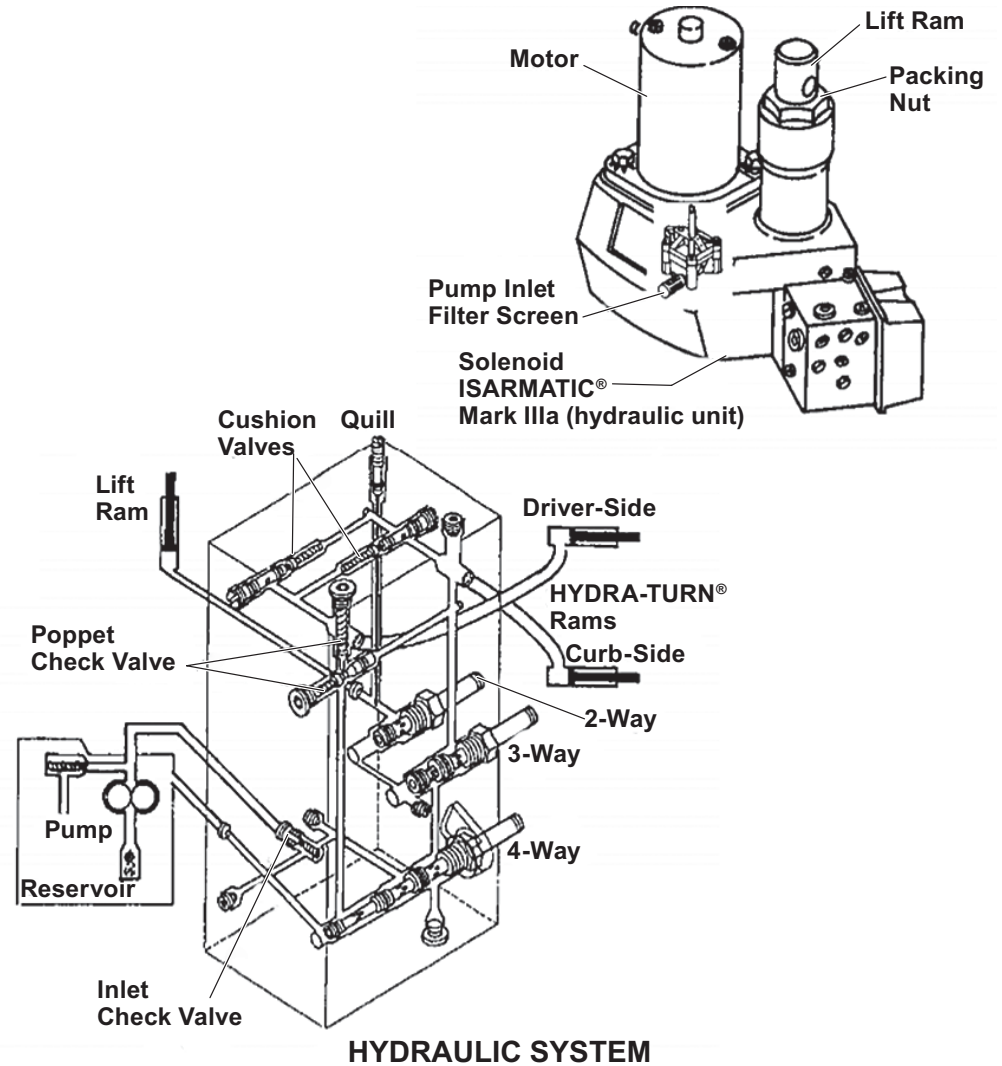
While plowing, oil is trapped in the extended HYDRA-TURN® ram. When the blade meets an object, pressure rises in the extended HYDRA-TURN ram. As pressure in the ram exceeds the spring force holding the checkball against the seat, the checkball unseats. This allows oil to flow to the collapsed ram, and angles the blade in the opposite direction, preventing damage to the hydraulic system, blade, or vehicle. Oil is trapped in the curb-side ram by the 3-way cartridge valve and in the driver-side ram by the poppet check valve.



VALVE MANIFOLD COMPONENTS

POPPET CHECK VALVE

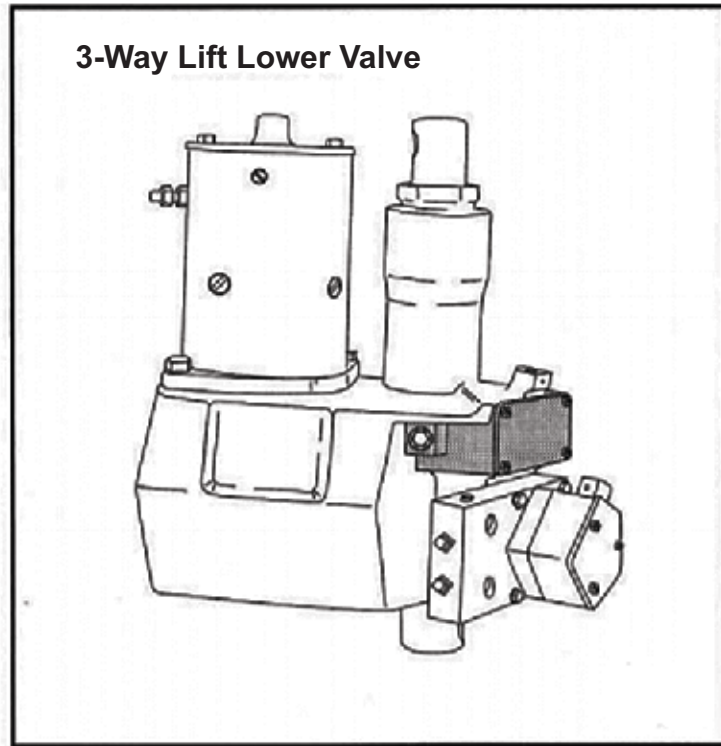
This check valve prevents oil from flowing out of the driver-side HYDRA-TURN ram while the blade is being raised. Without this check valve, whenever the blade is raised to stack snow, oil could flow from the driver-side ram, through the 4-way cartridge valve, and back to the reservoir.



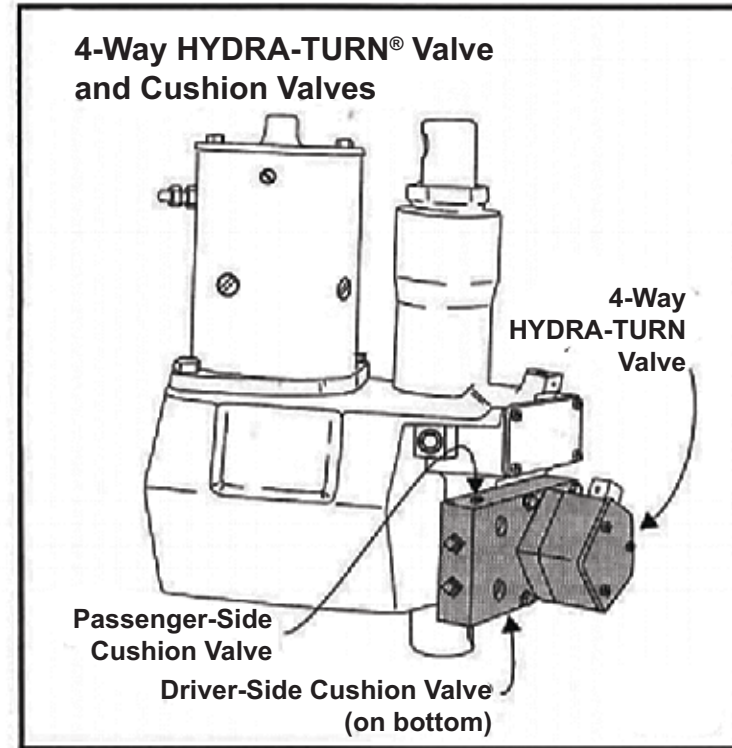
HYDRAULIC SYSTEM

INLET CHECK VALVE

The pump supply passage in the valve manifold has an inlet check valve (one-way check valve) which allows oil to flow from the pump into the valve manifold. This check valve prevents oil from flowing back to reservoir whenever the pump is not in operation.



The **3-way lift/lower valve** is located in the hydraulic housing, to the right of the nameplate. It controls the raise/lower movement of the snowplow blade and is mechanically operated by the cab control cable assembly.



The **4-way HYDRA-TURN valve** is attached to the hydraulic housing, directly below the 3-way valve. It controls plow angling and is mechanically operated by a cable linked to the cab control.

The **cushion valves** (cross-over relief valves) are located in the HYDRA-TURN valve manifold. They act as an impact absorbing device, protecting both the vehicle and plow when an immovable object is struck by the blade.

HOSE REFERENCE GUIDE

Hose Part #	Model	Lift or Angle Hose	Base or Rod, DS or PS	Hose Length	Hose Size	Thread Type
4424K	MVP® UniMount®	Angle	Base	36"	1/4"	NPTF
40569	PRODIGY™	Lift	Base	16"		SAE
41094	MIDWEIGHT™, PRO-PLOW® Series 2		Base	18"		
	PRO-PLUS®, PRO-PLUS HD, MVP 3™		Base			
44347	Suburbanite™ (New)		Base	12"		
44350	MVP PLUS™ , MVP 3™	Angle	Base, DS	45"	3/8"	SAE
44351			Base, PS	38"		
	WIDE-OUT™, WIDE-OUT Gen-2, WIDE-OUT™ XL		Base, DS			
48519	IMPACT™ V-Plow & Straight Blade, HTS™, DEFENDER™	Base	32"	1/4"		
49467	WIDE-OUT™, WIDE-OUT Gen-2, WIDE-OUT XL	Wing	Base & Rod, PS	67"	3/8"	
49468			Base & Rod, DS	78"		
49469		Base, PS	32"			
49496		PRODIGY™	Base, DS	42"		
49532	MIDWEIGHT™ , PRO-PLOW Series 2	Angle	Base	36"		
	PRO-PLUS, PRO-PLUS HD					
	PRODIGY					
55020K	UniMount® Straight Blades		Base	38"	NPFT	
	MVP UniMount	Rod	38"			
56224K	MVP UniMount	Lift	Base	18"	1/4"	SAE
56599	MVP PLUS, MVP 3	Angle	Rod, PS	36"		
	Suburbanite		Base			
56616-1	Standard , PRO-PLOW, PRO-PLUS		Base	42"		
	MVP UltraMount®		Base & Rod			
	MVP PLUS, MVP 3	Rod, DS				
56617	All UltraMount Straight Blade	Lift	Base	16"		
	MVP UltraMount, WIDE-OUT		Base			
56765	Suburbanite (Scrape Lock Cylinder)		Base	8"		
56830	HTS, MVP PLUS		Base & Rod	22"		
	Suburbanite, DEFENDER	Rod				
64625	MIDWEIGHT, PRO-PLOW Series 2, IMPACT V-Plow	Angle	Base	36"		
		Rod				
84446	DEFENDER, IMPACT V-Plow & Straight Blade	Lift	Base	14"		
84453	IMPACT V-Plow & Straight Blade		Rod	20"		

Cylinder Reference Guide

Cylinder Part #	Updated Part #	Model	Lift or Angle Ram	Single or Double-Acting	Ram Size	Retract Length Hole to Hole	Extend Length Hole to Hole	Gland Nut Assembly #	Split Bearing Kit #	Spacer #	Fitting Type	Pinholes Size
25210		(Central hyd.) HEAVYWEIGHT	Lift	Single	2' x 6"	14.06"	20.16"	Packing Nut # 25948	Wiper Ring # 25215	N/A	NPTF	3/4"
25878K		HEAVYWEIGHT	Angle		2" x 16"	23.12"	39.22"					1"
72620		PRO-PLUS® HD	Angle	Double	2 X 12-1/2"	18.82"	31.23"	57125	Wear Ring # 29570	N/A	SAE	1-1/4"
27204K	77489	Suburbanite™ (scape lock ram)	Lift		1-1/2" x 6"	12.99"	19.18"	27788-1 (ram seal kit)				1/2"
48600	77487	Suburbanite™	Slide Box	Double	1-1/2"x13-15/16" DA	26.56"	40.50"	43794 (ram seal kit)			SAE	5/8"
43803	77475	WIDE-OUT™, WIDE-OUT Gen 2 (810)			1-1/2"X16-15/16" DA	26.56"	43.50"					
94491		WIDE-OUT XL™ (8611)			1-3/4" x 11"	18.29"	29.28"	48985	44342 (ram seal kit)			1"
44341		MVP 3™, MVP PLUS™	Angle	1-1/2" x 10"	17.06"	27.27"	64650		56537	SAE	3/4"	
49460		PRODIGY™, WIDE-OUT™, WIDE-OUT Gen 2, WIDE-OUT XL(8611)	Lift	1-1/2" x 8"	15.18"	23.33"						
56538K		LSX MIDWEIGHT™ PRO-PLOW® (all), PRO-PLUS® MVP® (UltraMount®), MVP Plus™ PRODIGY™, WIDE-OUT™	Lift	Single	1-3/4" x 8"	15.20"	23.20"	43135	43134	N/A	SAE	3/4"
43149		MVP 3™, WIDE-OUT Gen 2, WIDE-OUT XL, PRO-PLUS® HD			1-1/2" x 10"	17.06"	27.27"	48985	64650	56537		
56614		Standard, PRO-PLOW® (UltraMount®)	Double	Double	2" x 10"	17.29"	27.29"		49498 (seal kit)		1"	
56709W T		MVP® (UniMount®)			2" x 11"	18.29"	29.29"	62290 (2)	56537			
56750		MVP® (UltraMount®)			Angle	Single	1" x 7"	13.50"	20.50"	66699K	56771 (2)	56803
56772K	77478	Suburbanite™, DEFENDER™ IMPACT™ Straight Blade	1-1/2" x 6"	17.06"			23.06"	25944K	62290 (2)	N/A	NPTF	3/4"
62540		Sport/Utility	1-1/2" x 10"	17.08"	27.08"							
62550K		Standard, PRO-PLOW® (UniMount®)	Single	Single	1-1/2" x 12"	19.56"	31.39"	48985	64650	56537	SAE	1"
64148		PRO-PLUS®			1-1/2" x 10"	17.06"	27.27"					
64706		MIDWEIGHT™, PRO-PLOW® Series 2	Lift	Double	1-1/2" x 6"	13.25"	19.25"	25944K	62290 (2)	N/A	NPTF	3/4"
66342		Old style standard (Conventional)			1-1/2" x 8"	15.18"	23.33"					
66650		All UniMount® Central Hydraulic	Angle	Double	2" x 6-3/4"	12.96"	19.71"	49499	48520 (seal kit)		SAE	1"
66722		MVP® (UniMount®)	Lift		1-1/2" x 8-3/4"	13.75"	22.5	52558	52557 (seal kit)			
69495		HTS™	Angle	Double	1-1/2" x 6"	12.99"	19.18	52277	27788-1 (seal kit)		SAE	1/2"
69513			Lift		1-1/2" x 6"	12.99"	19.18					
84435	77481	IMPACT™ UTV V-Plow	Angle	Double	1-1/2" x 6"	12.99"	19.18	52277	27788-1 (seal kit)		SAE	1/2"
84496	77484	IMPACT™ V-Plow & Straight Blade DEFENDER™	Lift		1-1/2" x 6"	12.99"	19.18					

T If it has (old cylinder #66375) will need 56539k 90° fitting from SAE to NPTF

CARTRIDGE VALVE REFERENCE

WESTERN® Cartridge Valve Identification

Service Part #	Hydraforce	Deltrol	UltraMount®					IMPACT™		UniMount®		
			MVP PLUS™ & MVP 3™	MVP®	WIDE-OUT™ & WIDE-OUT™ XL	Straight Blades	Prodigy™	V-Plow	Straight Blade	MVP	Straight Blades	
44332	SVCV08-20	–	S2, S4, S7, S8, S11		S1			S2				
44336	SF06-2015	–	S6, S10									
49227K-2	SV08-2004	DSV-080-2NCP-N-C66	S1, S3, S5, S9	S1	S2	S1	S1		S1	S1	S1	S1
66608-1	SV08-31	DSV2-080-3-N-C7				S2			S2			
49229K-1	SV08-40	DSV2-080-4CO-N-C25		S2, S5		S3			S3	S2, S5	S3	S3
49452	SV08-45	–			S5							
49456	SV08-41	–			S6							
49228K-1	SV08-30	–		S4, S6	S7, S8, S9, S10						S4, S6	S2
66783W	SV08-43	–		S3							S3	
48291	SV08-47C	–					S3C1, S3C2					
48288	SV08-22	–						S1 F				
84900	SV10-43	–						S2				
84936	SV08-2211	–						S1 F				
52285	SV08-47C	–						S3C1, S3C2, S4				

65

† SV08-22 (before approx. 6/30/16); SV08-2211 (after approx. 6/30/16).

O-Ring Service Kits			
56657-4	Back-Up/O-Ring Kit	49259-2	Seal Kit – Valves SV08-30, -31, -33, -40, -43, and SVCV08-20
49258-2	Seal Kit – Valves SV08-2004, CV08-20, SF08-2015		

NOTICE
Hex thickness difference between Hydraforce vs. Deltrol

Hydraforce

Deltrol



WESTERN® CONVENTIONAL SNOWPLOW PUMP REFERENCE



Pump - 25557
Overall Height - 3.56"
Status: Available



Filter - 25639
Status: Available



Pump - 56055
Overall Height - 4.15"
Status: Replaced by 49211 (Two Piece)



Filter - 25639
Status: Available



Pump - 49211 (Two Piece)
Overall Height - 4.15"
Status: Replaced by 49211 (Three Piece)



Filter - 56185
Status: Available



Pump - 49211 (Three Piece)
Overall Height - 4.15"
Status: Available



Filter - 56185
Status: Available

10887
Fitting, Hydraulic Pump Inlet
WIDE-OUT™, PRODIGY™,
MVP 3™, MVP PLUS™



If you have original motor #25556 and need to replace it you need to replace pump as well. New part # 49211, 21500-1 & 50869

Spreaders

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PRO-FLO™ 525 & PRO-FLO 900 Spreaders

Version	Model(s)	Remarks
Pre-1.8	PRO-FLO™ 525 & 900	No version is displayed upon power up. Beeps when key on and spreader disconnected. Discontinued. Upgrade to 1.9
1.8	Control Service Parts:	NOTE: Before use, Auto Reverse (AR) must be set to 7. No longer beeps when key on and spreader is disconnected.
1.9	52450/52452	Designated with orange dot/1.9 sticker. Recommended version to use with current product. Auto Reverse (AR) preset. Motor range shifted lower.


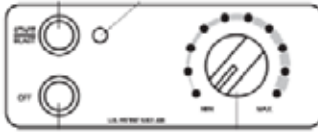
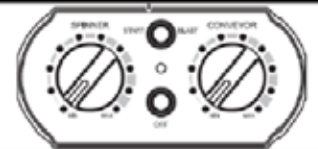
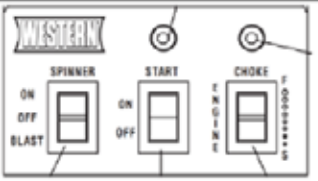
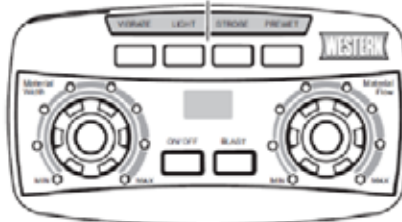
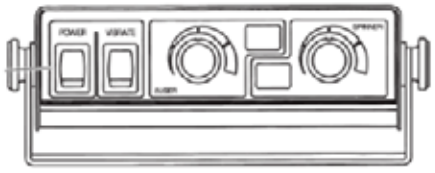
68

Striker™ & Tornado™ Spreaders

Version	Model(s)	Remarks
Pre-1.8	Electric Striker™ & Tornado™	No version is displayed upon power up. Beeps when key on and spreader disconnected.
1.8	Control Service Parts:	No longer beeps when key on and spreader disconnected.
1.9	99534/99774	Compatible with product. Motor range shifted lower.



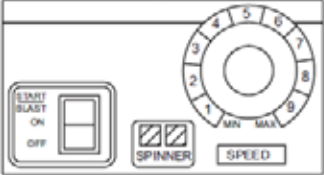

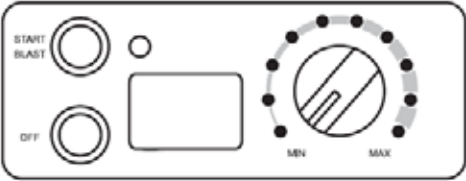

WESTERN® Hopper Spreader Control Reference

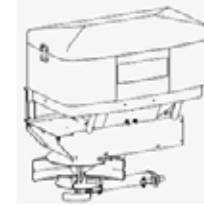
Part #	Model	Style	Description	Illustration
67530-1	ICE BREAKER™	Premium Cab Control	3 Rocker Switches	
29247 *	Tornado™ (0607 - 090224)	Cab Command	Single Dial, 2 Button	
78102	Tornado (090527 - 160129)	Cab Command	Variable Speed, Dual Dial, 2 Button	
98985	Striker™ (Gas)	2 Light Premium Cab Control	3 Rocker Switches	
99534 (Cab Control Kit) 99774 (Control Only)	Tornado™ (160201- Higher) & Striker (Electric)	2-Knob Cab Control	Variable Speed, Dual Dial, 4 Accessory Buttons	
51037	Tornado™ LT & Tornado™ UTV	Cab Command	Variable Speed, Dual Dial	

* 29247 replaced by 78102



Low Profile Tailgate Spreaders Control Reference

Part #	Model	Style	Description	Illustration
67437	Model 110	On/Off Control	On/Off w/Blast 4 Individual 1/4" Terminals	OBSOLETE
	Model 500 (030101 - Higher)			
	Model 1000 (10001 - 10002)			
	Model 2000 (20237 - 20363)			
67436 & 66600 are obsolete alt. to 28866	Model 110 (7192 - Higher)	Cab Command	Variable Speed, Single Dial, 2 Button	
	Model 500 (030101 - Higher)			
	Model 1000 (10001 - 10002)			
	Model 2000 (20237 - 20363)			
67070	Model 1000 (10003 - Higher)	On/Off Control	On/Off w/Blast 2 Plug	
	Model 2000 (20364 - Higher)			
	Model 2500 (080612 - Higher)			
28866	Model 1000 (10003 - Higher)	Cab Command	Variable Speed, Single Dial, 2 Button	
	Model 2000 (20364 - Higher)			
	Model 2500 (080612 - Higher)			
75910 Uses CR2032 battery or equivalent	Model 300 W	Wireless Key Fob Control	On / Off 50% or 100%	



PRO-FLO™ Tailgate Spreader Control Reference

Part #	Model	Style	Description	Illustration
66600 is obsolete Alt. to 28866	PRO-FLO & PRO-FLO™ 2	PWM Control	Variable Speed, Single Dial, Single Rocker Switch	
67070	PRO-FLO & PRO-FLO2	On/Off Control	On/Off w/Blast 2 Plug	
28866	PRO-FLO & PRO-FLO2	Cab Command	Variable Speed, Single Dial, 2 Button	
52450	PRO-FLO™ 525 & PRO-FLO™ 900	2-Knob Cab Control	Variable Speed, Dual Dial, 4 Accessory Buttons	

SPREADER DIAGNOSTIC CODES



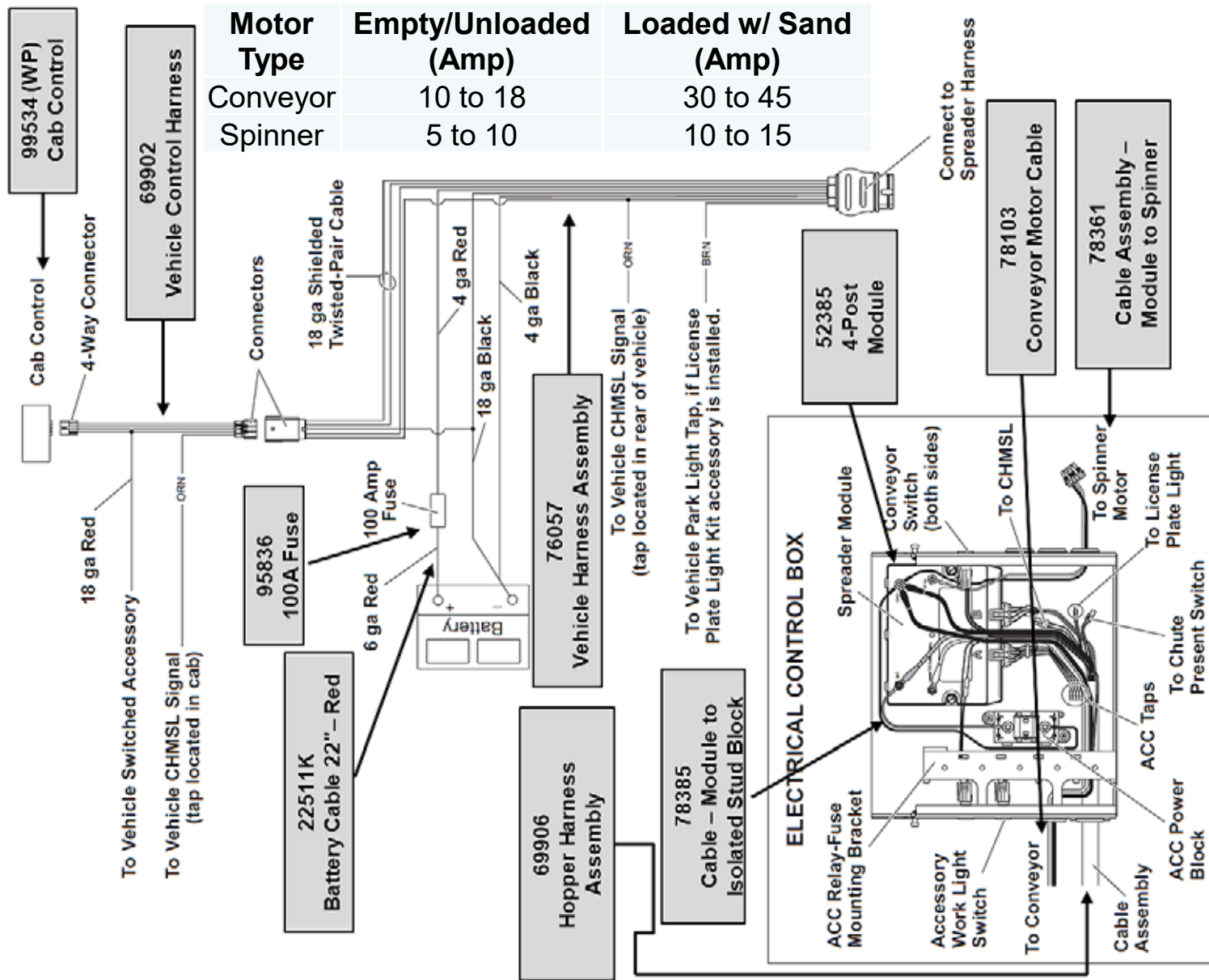
NOTE:
When spreader is un-plugged, CE will be displayed on the control.

CODE	CONTROL MODE
<i>Ar</i>	Auto-reverse mode (auger units only).
<i>Cb</i>	Calibration mode.
<i>Cc</i>	Clear calibration. Clears all stored calibration data.
<i>dU</i>	Dump mode.
<i>LS</i>	Entering brightness adjustment mode.
<i>SL</i>	Exiting brightness adjustment mode.
CODE	FAULT CONDITION
<i>bb</i>	Bad button. Button is stuck.
<i>bH</i>	Bad hopper. Control and module are incompatible.
<i>CE</i>	Communication error. No communication with spreader module.
<i>CP</i>	Chute present fault. Chute is open.
<i>Ct</i>	Control temperature is too hot.
<i>EF</i>	Excessive faults. 60-second time-out.
<i>EH</i>	Empty Hopper (informational code). Calibration data input required.
<i>HO/HO.</i>	Hopper/feed motor overload.
<i>HP</i>	Hopper power fault. Hopper drive motor not connected.
<i>Lb</i>	Low battery. Module is sensing <10V (warning code) or <6V (fault code).
<i>nC</i>	No connection. Spreader not connected to vehicle harness.
<i>nr</i>	No reverse detected (auger units only).
<i>OH/OH.</i>	Overheating spreader module.
<i>rS</i>	Module reset.
<i>SO/SO.</i>	Spinner overload. Spinner motor overload.
<i>SP</i>	Spinner power fault. Spinner drive motor not connected.

Lit. No. 92952, Rev. 01

March 15, 2016

HOPPER WIRING DIAGRAM (FLEET FLEX SYSTEM)

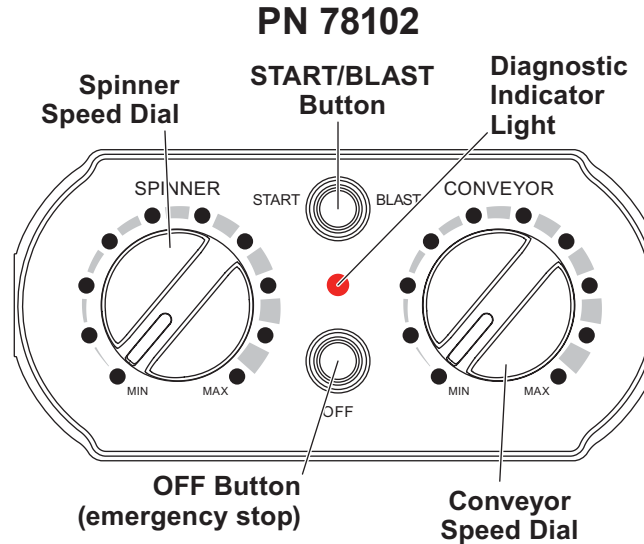


Tornado™ POLY HOPPER CONTROL (Pre FLEET FLEX System)

Diagnostic Indicator Light and Audio Beep

The diagnostic indicator light located beneath the START/BLAST button remains dark unless a problem with the motor or wiring is detected. The light will flash in coordination with an audio beep a number of flashes/beeps in a row, pause, then repeat. Count the flashes/beeps and refer to diagnostic chart below to determine the nature of the malfunction.

NOTE: Always close the lids on hopper to prevent moisture buildup. Do not let spreader sit idle with material in hopper for an extended period of time. This can cause material to compact, reduce or stop the flow of material and cause permanent hopper body deformation.

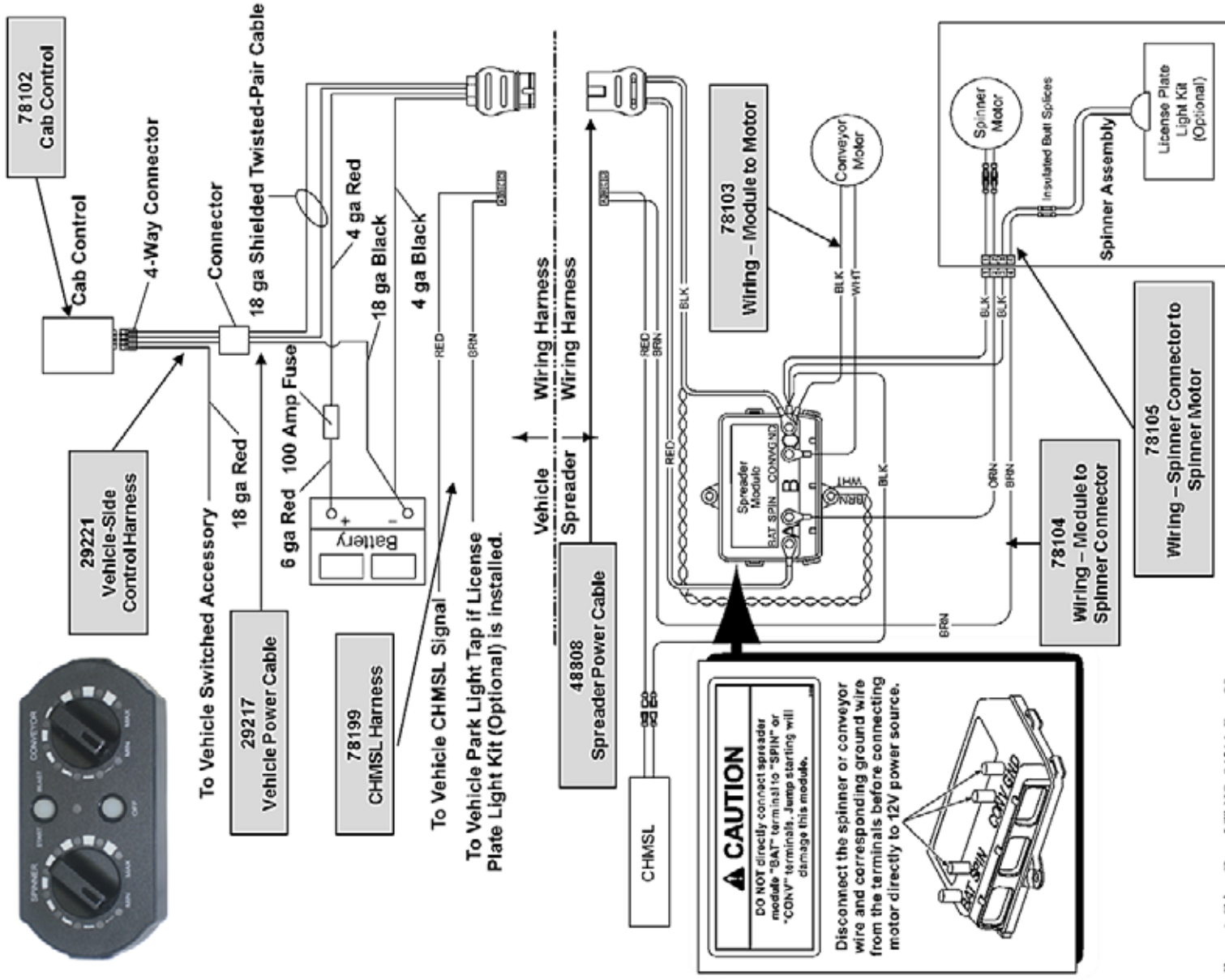


Tornado Spreader Amperage Draw Reference		
Motor Type	Empty	Loaded w/ Material
Conveyor	15A–20A	25A–55A
Spinner	4A–10A	10A–15A
Conveyor & Spinner	20A–25A	35A–70A

# of Flashes/Beeps	Problem	Possible Cause
0	No Error	–
1	No Communication	Loss of communication between spreader module and cab control. Vehicle cable assembly is disconnected or faulty.
2	Empty Hopper	Spreader is empty or material has bridge in the hopper.
3	Conveyor Over Current	Over 70A for up to 3 seconds. Conveyor chain is stalled.
4	No Power	Battery fuse is blown or vehicle cable assembly is disconnected or faulty.
5,8	Over Temp	Motor is OFF due to spreader module overheating from high-current draw over a long period of time.
6	Battery Saver	Reduced spreader performance due to vehicle voltage drop. Spreader will function at reduced output until vehicle voltage increases.
7	Spinner Over Current	Over 32A for up to 3 seconds. Spinner is stalled.
9	Sander Reset	Module came out of reset. Momentary loss of power. Restart unit, check power wiring.
10	Cool Down	If the unit gets more than 5 faults with each fault starting within 60 seconds from the last, it will not start for 60 seconds from the last fault to allow the unit to cool.
11	Low Battery	Low battery voltage or poor electrical connection of vehicle cable assembly.

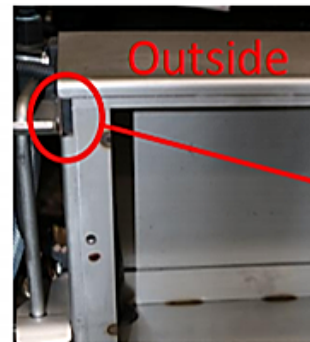
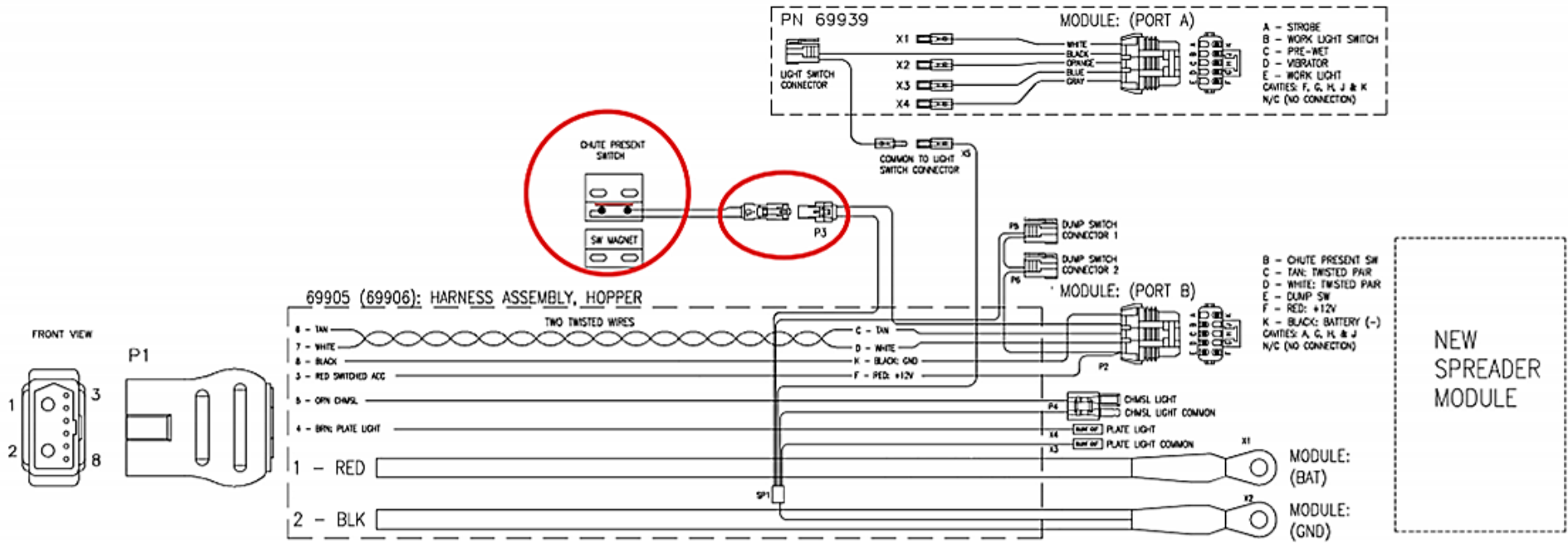
Tornado™ POLY HOPPER WIRING DIAGRAM (Pre FLEET FLEX System)

HARNES WIRING DIAGRAM



Excerpts Taken From LIT NO. 94211, Rev. 00

ELECTRIC Striker™ HOPPER-SIDE ELECTRICAL DIAGRAM

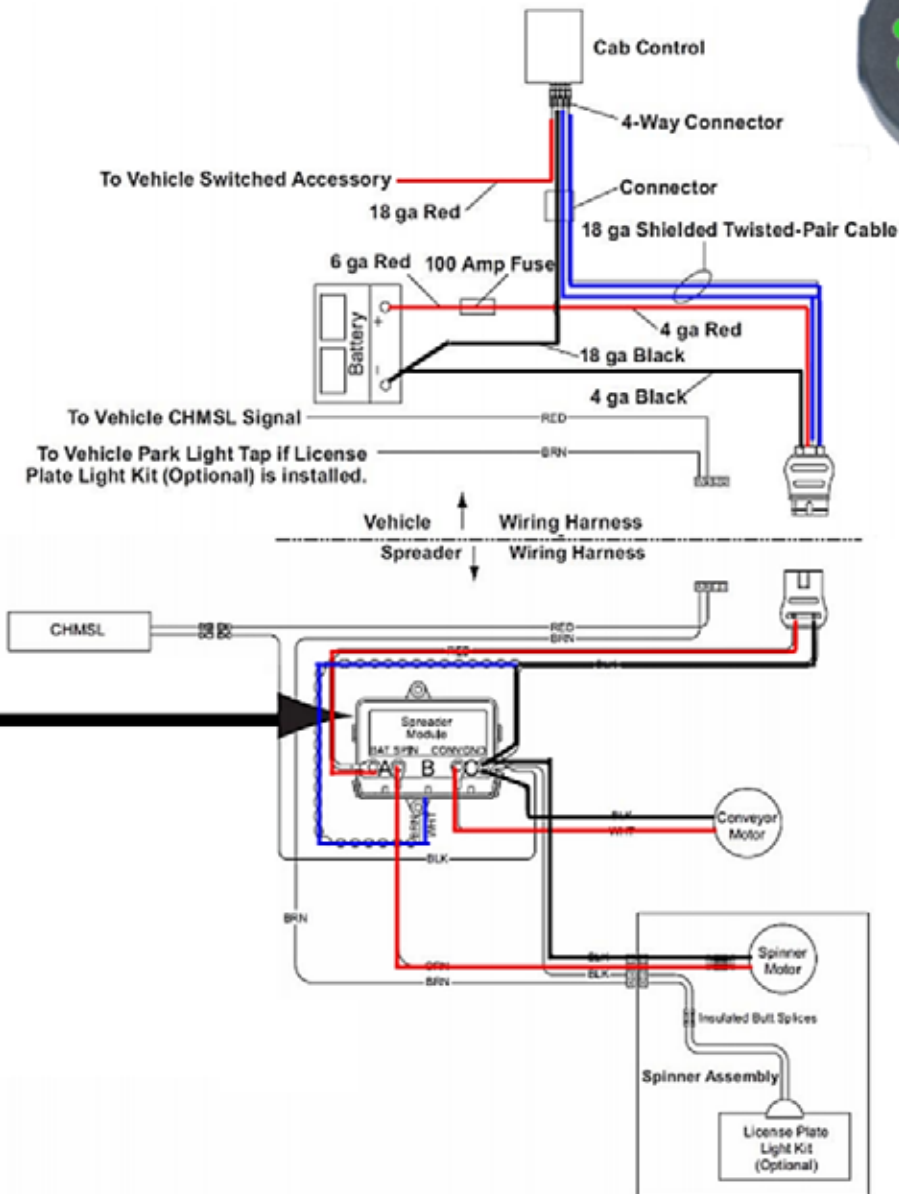


Striker™ HOPPER (OLD) ELECTRICAL DIAGRAM

- 1 Vehicle battery provides power to cab control and spreader module.
- 2 Vehicle battery provides ground to cab control and spreader module.
- 3 Switched accessory is activated, cab control is ON.
- 4 Conveyor and spinner speed is selected, signal sent through communication wires to spreader module.
- 5 Spreader module decodes signal from the cab control, sends power and ground to conveyor and spinner motor.

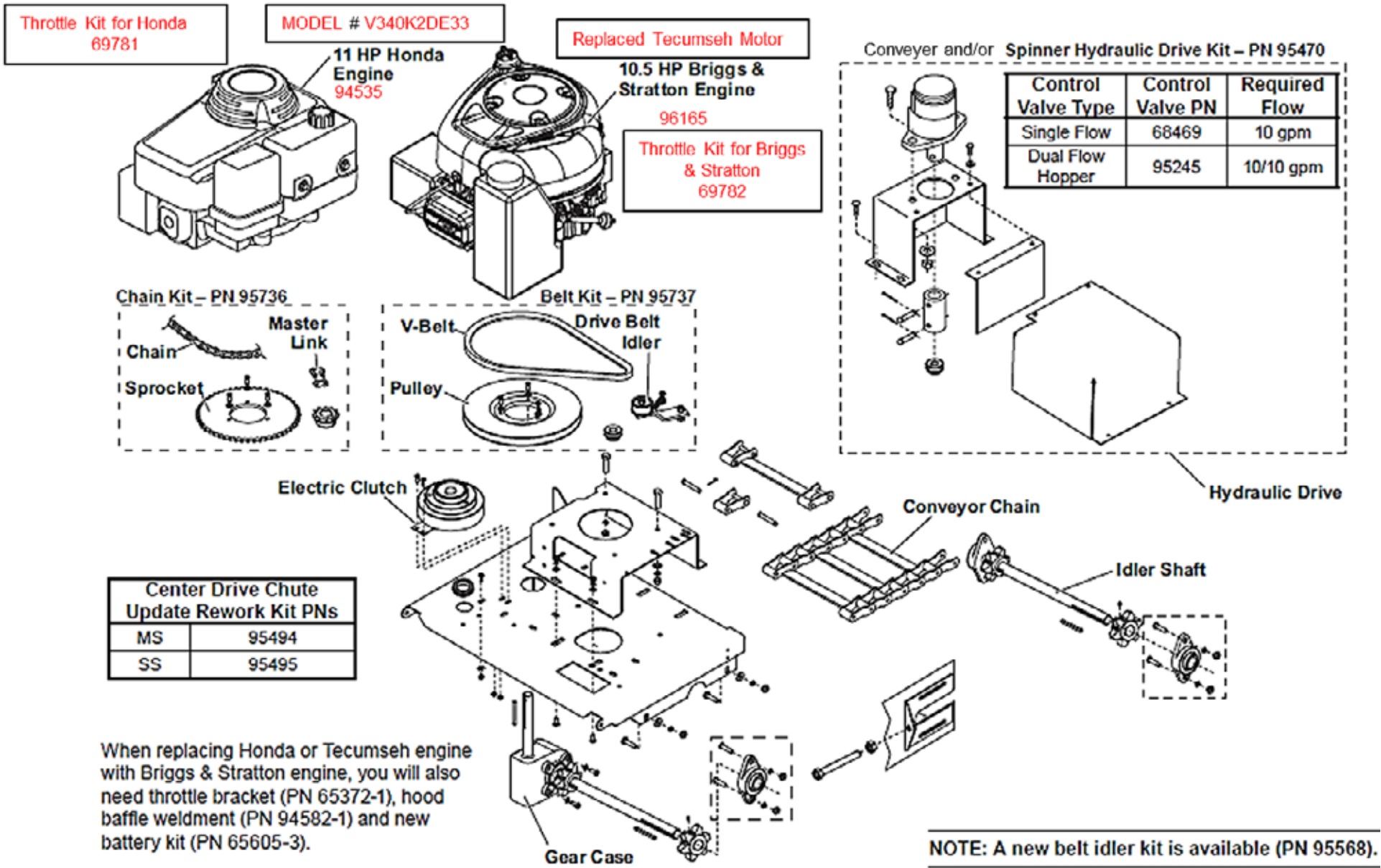


Cab Control



Excerpts Taken From LIT NO. 94211, Rev. 00

ICE BREAKER™ HOPPER SPREADER – DRIVE COMPONENTS



CONVEYOR CHAIN REFERENCE

ICE BREAKER™

Serial Number	Part Number	Length	RC or HC	Overall Width (pin to pin)	Sprocket to Sprocket (centerline)	# of Links
0126–Higher	94898	7'		15.679"	14.025"	108
	68474	8'		15.679"	14.025"	123
	95361	9'		15.679"	14.025"	138
	68435	10'		15.679"	14.025"	150

Old-Style Hopper (‡ = Obsolete Part)

4583–6998	94462	7'	RC	11.651"	10.025"	108
	68349 ‡	8'	RC	11.879"	10.025"	123
	68474	8'	HC	15.679"	14.025"	123
	68435	10'	HC	15.679"	14.025"	150
3883–4582	68349	8'	RC	11.879"	10.025"	123
	68474	8'	HC	15.679"	14.025"	123
	68435	10'	HC	15.679"	14.025"	150
1200–3882	65183 ‡	8'	RC	11.863"	10.209"	123
	65648 ‡	8'	HC	16.002"	14.376"	123
	65650 ‡	10'	HC	16.002"	14.376"	123

Striker™

150515–	94898	7'–8'		14.025"	15.65"	123
	68474	9'–10'		14.025"	15.65"	108

Tornado™

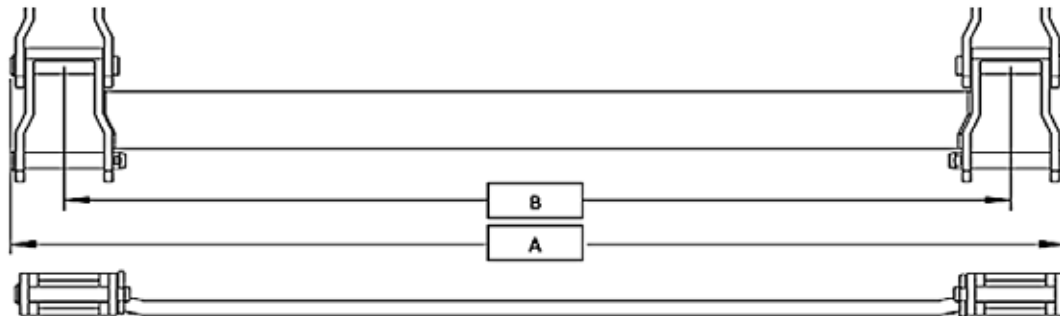
090528–	78078	7'		14.025"	15.65"	99
	94898	8'		14.025"	15.65"	108

0.35 yd³ Striker

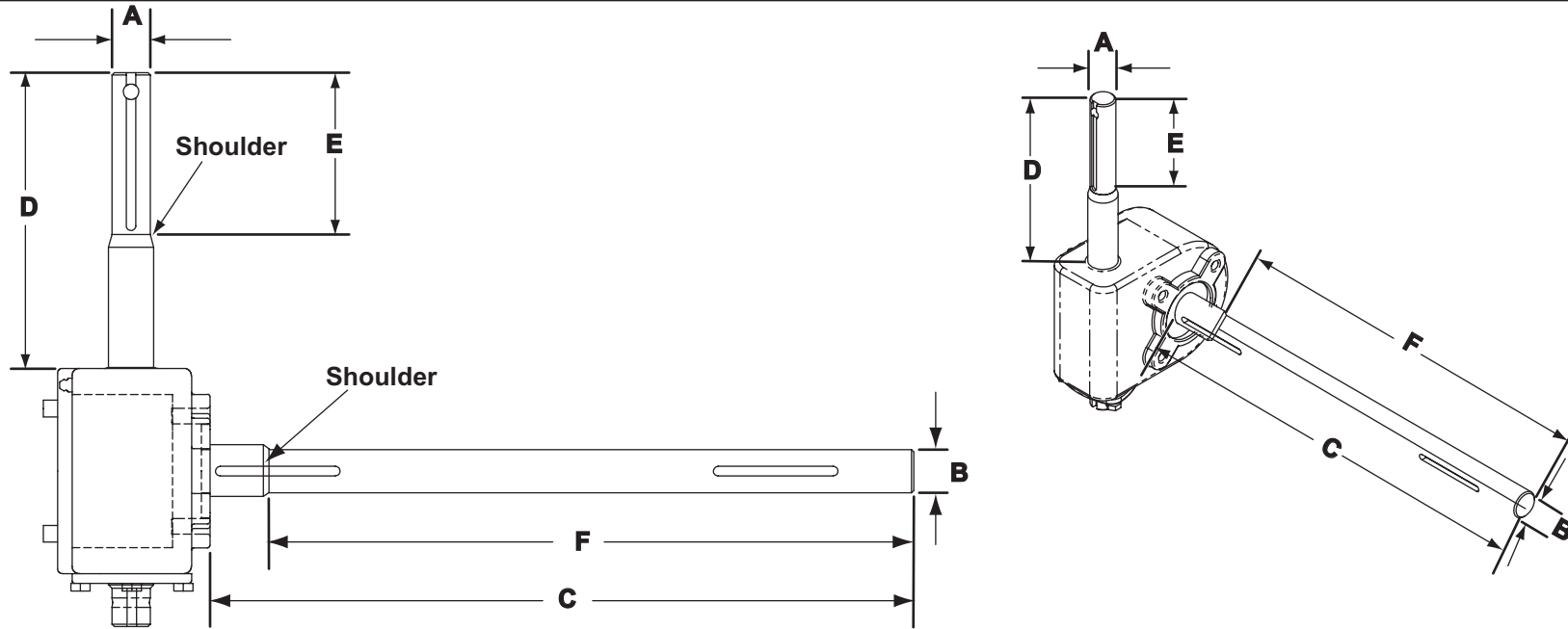
74758	94898	3'		11.651"	10.025"	48
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0.7 yd³ Striker

74758	94898	4.5'		15.65"	14.025"	78
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SPREADER GEAR CASE REFERENCE TABLE



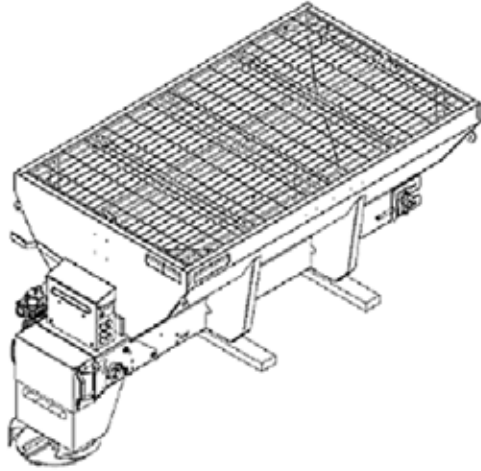
80

Model	Serial Number	Part Number	A	B	C	D	E	F	Comments
			Input Shaft OD	Output Shaft OD	Output Shaft Length	Input Shaft Length	Input Shaft Length to Shoulder	Output Shaft Length to Shoulder	
Tornado™	090527 – 120430	95567	1	1-1/4	18-21/32		4		
Old Tornado	0607 – 090224	95756 T	5/8	3/4			5	2-5/8	
PRO-FLO™ 2	202650 – Higher	68803 T	5/8	3/4		2-3/16		2-5/8	
	202389 – 202649	65762 T	5/8	3/4		2-3/16		2-5/8	
65762 can be replaced with 68803 by adding two 95692 mounting brackets and drilling attaching holes in spreader frame stub shaft directly below input shaft.									
ICE BREAKER™	0126 – 0401	94349 T	1	1-1/8	18-3/8		4-7/32		Direct Drive
	0402 – Higher	95567	1	1-1/8	18-3/8		4-7/32		Center Drive
Hopper Spreader	4583 6998	78367 T (68374 T)	1	1-1/8	14-3/8	7-7/8			Regular Capacity
		78367 T (68412 T)	1	1-1/8	14-3/8	7-7/8			Regular Capacity Hydraulic
		78368 T (68384 T)	1	1-1/8	18-3/8	7-7/8			High Capacity/Gas
		78368 T (68463 T)	1	1-1/8	18-3/8	7-7/8			High Capacity Hydraulic
	1200 – 3882	65178 T	1	1-1/8	2	7-7/8			Regular Capacity

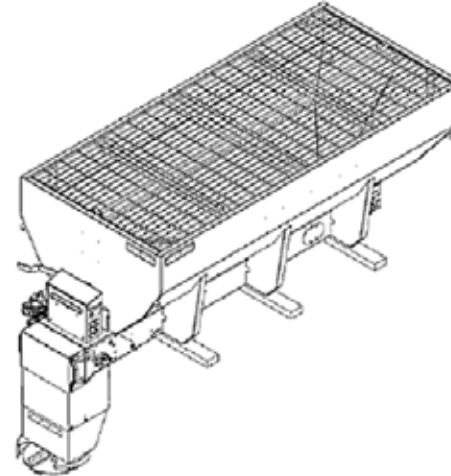
T Obsolete Part

Striker™ CHUTE REFERENCE

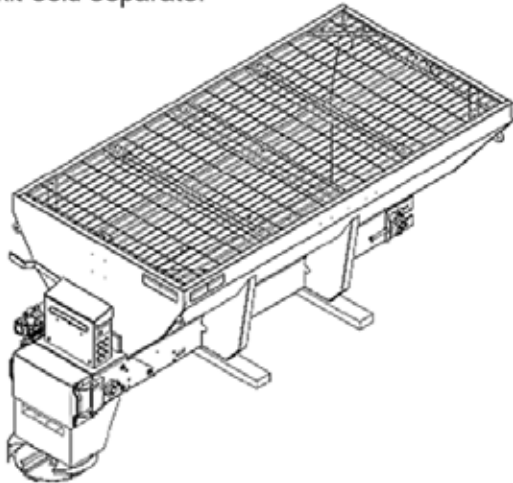
7' Steel Hoppers – Standard with short chute configuration. PN 99139 electric chute extension kit sold separate.



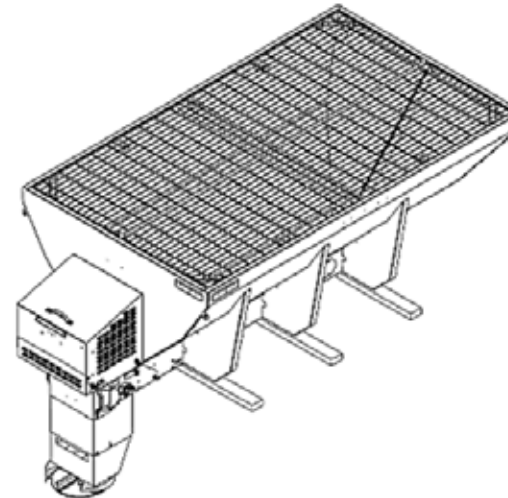
9' Steel Hoppers – Standard with long chute configuration. Additional short spinner shaft is also provided with each hopper.



8' Steel Hoppers – Standard with short chute configuration. PN 99139 (electric), 99619 (gas) or 99698 (hydraulic) chute extension kit sold separate.

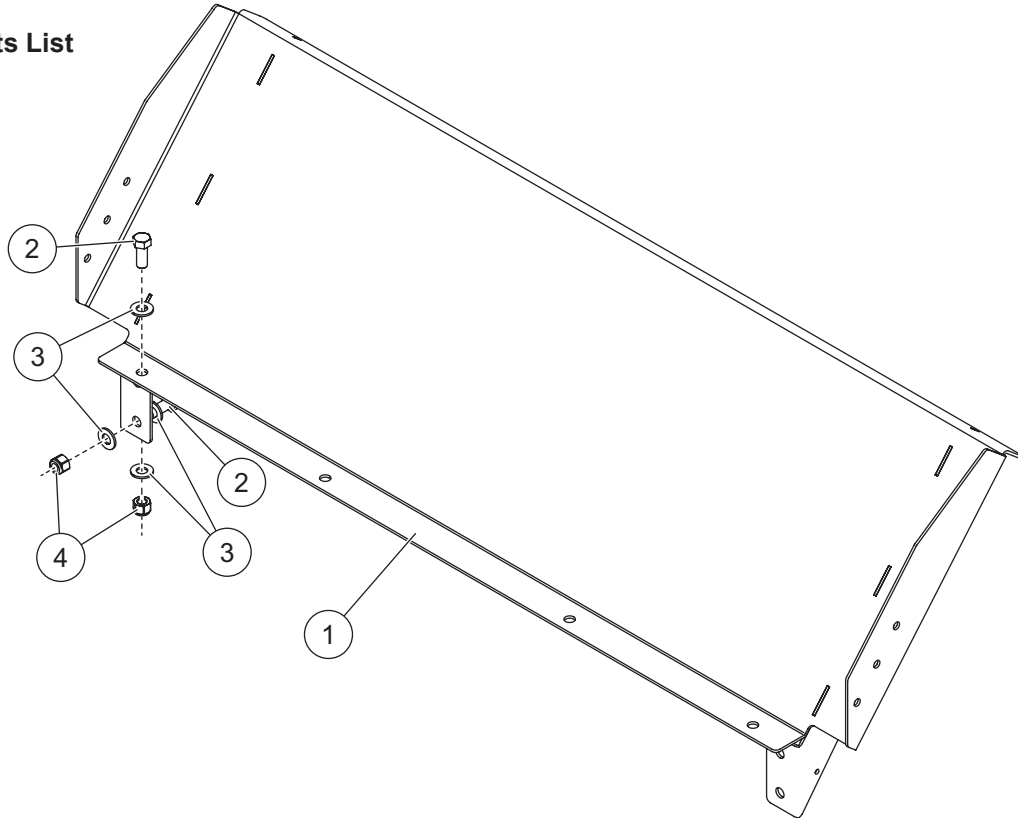


10' Steel Hoppers – Standard with long chute configuration. Additional short spinner shaft is also provided with each hopper.



STAINLESS STEEL HOPPERS – SPILL GUARD KITS

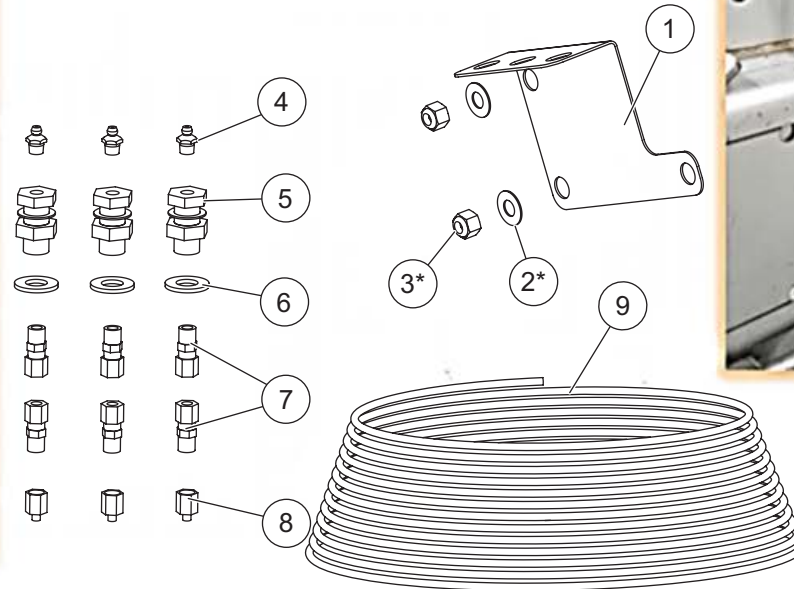
Parts List



82

81119 Spill Guard Kit – 70"							
Item	Part	Qty	Description	Item	Part	Qty	Description
1	79112	2	Spill Guard, 70"	ns	79114	1	Bolt Bag
79114 Bolt Bag							
2		20	1/2-13 x 1-1/4 Hex Cap Screw SS	4		20	1/2-13 Locknut SS
3		40	1/2 Flat Washer SS	ns	68595	1	Label – Information
81120 Spill Guard Kit – 50" (Shown)							
Item	Part	Qty	Description	Item	Part	Qty	Description
1	79113	2	Spill Guard, 50"	ns	79115	1	Bolt Bag
79115 Bolt Bag							
2		16	1/2-13 x 1-1/4 Hex Cap Screw SS	4		16	1/2-13 Locknut SS
3		32	1/2 Flat Washer SS	ns	68595	1	Label – Information
ns = not shown				SS = Stainless Steel			

POLY & STAINLESS STEEL HOPPER SPREADERS – CENTRAL GREASE POINT KIT



83

11763 Central Grease Point Kit							
Item	Part	Qty	Description	Item	Part	Qty	Description
1	11845	1	Bracket	6		3	1/2 Flat Washer SS
2*		2	3/8 Flat Washer Wide SS	7	D6984	6	1/4 Compression Fitting
3*		2	3/8-16 Hex Locknut GB	8	D6985	3	1/4-28 x 1/8 Female Adapter
4	B61400	3	1/8 NPT Straight Grease Zerk	9	D6987	1	1/4 Nylon Tubing – 300"
5	D6982	3	1/8 Bulkhead Coupling Brass				
G = Grade				SS = Stainless Steel			

* Used for poly hopper installations only.

Lit. No. 11846, Rev. 01

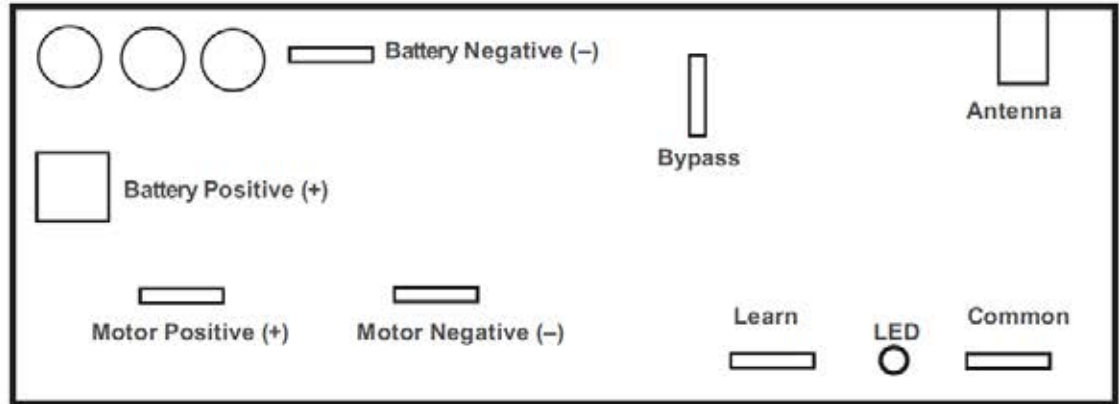
LOW-PRO 300W TAILGATE SPREADERS

LOW-PRO 300W Spreader

- 3.00 ft³
- Wireless

Available Mounts Include:

- 2" receiver hitch
- 3-point hitch mount
- Drop utility
- Trailer and utility mount



Wireless Receiver Module Connections



Amperage Draw

- 3.5A: No Load
- 10A: Underload



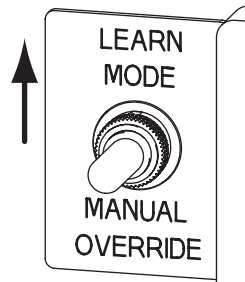
WIRELESS CONTROL PROGRAMMING AND PAIRING

PROGRAMMING AND PAIRING THE WIRELESS KEY FOB CONTROL

Resetting the Wireless Control Module

Push and hold the toggle switch UP into the "LEARN MODE" position for 15 seconds and then release. This erases all previously paired wireless key fob controls from memory.

A wireless key fob control must be paired before the spreader will operate.



Programming the Wireless Key Fob Control

1. Gently press the end of a pointed object (e.g., ballpoint pen) into the small hole on the underside of the wireless key fob control. A blue light on the underside of the key fob will flash for 10–15 seconds, indicating that the wireless key fob control will accept programming.



2. While the blue light is flashing, press the wireless key fob control buttons in the following sequence:

50%, OFF, 100%, 50%, OFF, 100%.

The sequence must be completed before the blue light stops flashing.

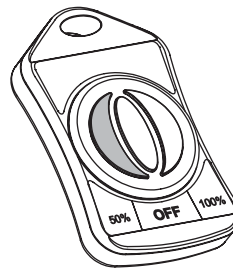
Pairing the Wireless Key Fob Control to the Wireless Control Module

1. Check that the wireless control module is receiving a signal by confirming that a red light is visible through the bottommost hole in the toggle-switch side of the transmission mount.

⚠ WARNING

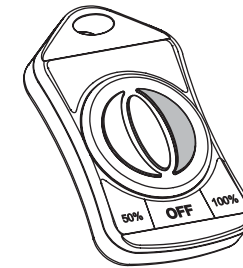
The spinner will start immediately upon successful pairing. Keep hands and tools clear of spinner assembly.

2. Press and hold the "50%" button on the wireless key fob control. While holding the button, push the toggle switch UP into the "LEARN MODE" position twice and release the toggle switch. Continue holding the button for 30 seconds and the spreader will start at 50% speed.



If the spreader does not start, release the "50%" button, wait 20 seconds, and then repeat Step 2.

3. Press the "100%" button to make sure the spreader runs at 100% speed.



If any of the buttons are not working, return to "Resetting the Wireless Control Module," and repeat the entire programming and pairing process.

Striker™ SPREADER SPILL GUARD REFERENCE

Dual Electric							
Capacity	0.35 yd ³	0.7 yd ³	1.5 yd ³	2 yd ³	3 yd ³	4.5 yd ³	6 yd ³
Spill Guard Size	N/A	N/A	50"	50"	50"	70"	70"
Part #	85696	85697	81120	81120	81120	81119	81119

Dual Gas							
Capacity	0.35 yd ³	0.7 yd ³	1.5 yd ³	2 yd ³	3 yd ³	4.5 yd ³	6 yd ³
Spill Guard Size	N/A	N/A	50"	50"	50"	70"	70"
Part #	N/A	N/A	81120	81120	81120	81119	81119

Dual Hydraulic							
Capacity	0.35 yd ³	0.7 yd ³	1.5 yd ³	2 yd ³	3 yd ³	4.5 yd ³	6 yd ³
Spill Guard Size	N/A	N/A	50"	50"	50"	70"	70"
Part #	N/A	N/A	81120	81120	81120	81119	81119

SPREADER GEAR BOX REFERENCE

† Obsolete Part											
*** To Be Obsolete											
Type	Serial Number	Part Number	Input Shaft OD	Output Shaft OD	Output Shaft Length	Input Shaft Length	Input Shaft Length to Shoulder	Output Shaft Length to Shoulder	Ratio	Auger / Spinner	Comments
Striker™											
Dual Electric	170711 – Higher	99087							2 : 1	Auger	
	160902 – 170628										
	150515 – 160902										
Gas Engine	170711 – Higher	99117							20 : 1	Auger	
	150515 – 170628										
Dual Hydraulic	170711 – Higher 150515 – 170628	99117							20 : 1	Auger	
Tornado™											
1.5, 1.8, 2.5 yd Hoppers	160905 – Higher	99087							2 : 1	Auger	
	160201 – 160902										
	120522 – 160129	95567	1.0"	1.125"	18.65"	4.0"		20 : 1			
	090528 – 120430										
1.25 yd Hoppers	0712 – 090224 0609 – 0711 0606 – 0608	95756 ***	5/8"	3/4"			5.0"	2-5/8"	20 : 1	Auger	
LT (78901)	0000 – Higher	51090							30 : 1	Auger	
		51028							8 : 1	Spinner	
UTV (78600)	160901 – Higher	51090							30 : 1	Auger	
		51028							8 : 1	Spinner	
ICE BREAKER™											
ICE BREAKER	0402 – Higher	955667	1.0"	1.125"	18.65"		4.0"		20 : 1	Auger	
	0126 – 0401	94349 ***									

SPREADER GEAR BOX REFERENCE (continued)

Type	Serial Number	Part Number	Input Shaft OD	Output Shaft OD	Output Shaft Length	Input Shaft Length	Input Shaft Length to Shoulder	Output Shaft Length to Shoulder	Ratio	Auger / Spinner	Comments
Hopper Spreader											
Hopper	4583 – 6998	(T 68374) (T 68412)	1.0"	1-1/8"	14-3/8"	7-7/8"					Regular Capacity
		(T 68384) (T 68463)			18-3/8"						Regular Capacity Hydraulic
	1200 – 3882	65178			2.0"						High Capacity
											High Capacity Hydraulic
											Regular Capacity
Tailgate Spreaders											
PRO-FLO™ 91810-1 91850-1	170504 – Higher	75670 (525)A							30 : 1	Auger (525)	
918102 91850	160801 – 170502	75640 (525)S 75692 (900)A							8 : 1 20 : 1	Spinner (525) Auger (900)	
		75686 (900)S						8 : 1	Spinner (900)		
80152 (525) 80190 (900)	150601 – 160729	SAME							SAME	SAME	
LOW-PRO 300W	150401 – Higher	75625		5/8"	5.87"				14.5 : 1	Both	
Hopper											
PRO-FLO™ 2 (67120)	202650 – Higher	68803 ***								Conveyor	
	202389 – 202649	65762 ***									
PRO-FLO (67280)	115297 – Higher	N/A									No gear box; Belt driven from motor

BEARING REFERENCE CHART

Bearing Part #	Bore Dimension	Hole Type	# of Holes	Bolt Size	Distance Between Holes	Grease Fitting	Used In:	Notes
9157	1"	Flange	2				ICE BREAKER™	
9162	1 1/8"	Flange	2					
9176	1"	Flange	2					
9193	3/4"	Pillow	2				ICE BREAKER	With Locking Collar
20322	1"	Pillow	2			bottom	Tornado™	Obsolete
65171	1 1/8"	Flange	2	3/8"	3.563"			
65197	3/4"	Pillow	2	7/16"	3.750"	bottom	ICE BREAKER	With Locking Collar
65409	3/4"	Flange	2	5/16"	2.750"		PRO-FLO™	
65758	3/4"	Hanger	3				PRO-FLO 2	
65759	3/4"	Take Up					PRO-FLO 2	
68619	3/4"	Flange	2	3/8"	3.543"		PRO-FLO 2, 1.25 Tornado	
68662	5/8"	Flange	4	3/8"	2.125"		LOW-PRO 500, LOW-PRO 1000/2000, PRO-FLO™ 525, PRO-FLO™ 900, 1.25 Tornado	
65182	1"	Flange	2	5/16"	2.984"		ICE BREAKER	94897 KIT
94536	1 1/8"	Flange	2	3/8"	4.594"		Striker™ & Tornado	94953 KIT
65636	1"	Pillow	2	7/16"	4.125"	on bottom	Tornado	95488 KIT
96167	3/4"	Flange	2	3/8"	3.531"	on side	Tornado, Striker, & WESTERN® 2500	
96501	.75 ID	Flange	2	3/8-16 X 1-1/4 Carriage Bolt	3.53	on side	Tornado, Striker, & Western 2500	Kit with bolts
D6512	5/8"	Flange	4				TGS05	Obsolete
D6845	1 1/4"	Flange	2					n/s

General Info

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WESTERN® SNOWPLOW PRE-DELIVERY INSPECTION

Please review the following prior to snowplow delivery:

- _____ Verify that the snowplow properly attaches and detaches from the vehicle.
- _____ Verify that the A-frame/T-frame of MVP PLUS™ and MVP 3™ snowplows is properly configured to the vehicle as described in the Installation Instructions and Owner's Manual.
- _____ Verify that all wiring harnesses and battery cables are properly secured away from hot or moving parts, as described in the Installation Instructions.
- _____ Verify that dielectric grease has been applied to all electrical connections, as described in the Installation Instructions.
- _____ Verify that all vehicle and snowplow lights are adjusted and working correctly as described in the Owner's Manual.
- _____ Verify that all hydraulic hoses are properly routed, free of twists and kinks, and away from any pinch points. Verify that the hose wrap on MVP PLUS, MVP 3, WIDE-OUT™, and WIDE-OUT™ XL snowplows is located correctly to prevent hoses from getting caught between the stacking stops and the frame, and to prevent chafing on the back of the blade.
- _____ Verify that all hydraulic hoses are tight and that there are no leaks.
- _____ Verify that the hydraulic fluid has been properly topped off as described in the Owner's Manual.
- _____ Verify that the stand shoe is properly adjusted.
- _____ Verify that the stacking stops are adjusted correctly on MVP PLUS and MVP 3 snowplows as described in the Installation Instructions.
- _____ Verify that all pivot points are properly lubricated as described in the Owner's Manual.
- _____ Verify that the lift chains are properly adjusted for optimum transport height and to allow for float. Verify that the blade does not block the snowplow lights.
- _____ Adjust the blade drop speed as needed. See the Owner's Manual and Installation Instructions for more information.
- _____ Verify that all snowplow functions are working correctly.
- _____ Verify that the customer has received the Owner's Manual and Owner's Registration Card.

PRE-CALL CHECKLIST

PRE-CALL CHECKLIST			
HAVE THIS INFORMATION WHEN YOU CALL			
NEW OR EXISTING INSTALL:		DATE OF INSTALL:	
TRUCK INFO:			
YEAR:			
MAKE:			
MODEL:			
HEADLAMP STYLE:			
ISOLATION MODULE PART NUMBER:			
SOFT START ADAPTER REQUIRED?:			
HEADLAMP HARNESS PART NUMBER(S):			
HAND-HELD CONTROL TYPE:			
SNOWPLOW INFO:			
MODEL (INCLUDING WIDTH):			
SERIAL NUMBER SNOWPLOW & HYDRAULIC UNIT:			
ELECTRICAL INFO:	2-PLUG FLEET FLEX	OR	3-PLUG
			OR 2-PLUG RELAY (OLD)
COMPLAINT OR ISSUE (VERIFIED BY TECHNICIAN):			
SNOWPLOW FUNCTION OR LIGHTING ISSUE:			
TRUCK-SIDE OR PLOW-SIDE:			
IF LIGHTING ISSUE:	WHAT'S MISSING (POWER OR GROUND) & WHERE:		
SOLENOID COIL ACTIVATION TEST (SCAT) RESULTS:		ELECTRICAL	OR
	WHAT'S MISSING (POWER OR GROUND) & WHERE:		HYDRAULIC
	MOTOR AMPERAGE DRAW:		PUMP PRESSURE:
SPREADER INFO:			
MODEL (INCLUDING LENGTH):			
SERIAL NUMBER (REQUIRED):			
TRUCK-SIDE OR SPREADER-SIDE:			
CONTROL ERROR CODE:			
COMPLAINT OR ISSUE (VERIFIED BY TECHNICIAN):			

WESTERN® SNOWPLOW CHECKLIST



Western Products
PO Box 245038
Milwaukee, WI 53224-9538
www.westernplows.com

A DIVISION OF DOUGLAS DYNAMICS, L.L.C.

Snowplow Checklist

Customer Name: _____ Date: _____

Serial No.: _____

Please review the following with the customer and check accordingly. The distributor keeps the original and should give a signed copy to the customer.

- _____ Discussed the Owner's Manual and reviewed safety information.
- _____ Demonstrated correct operation of the snowplow.
- _____ Demonstrated correct mounting and dismounting of the snowplow.
- _____ Discussed proper ballast and location (if applicable). See Quick Match.
- _____ Discussed the recommended plowing and transport speeds.
- _____ Told the owner to check and tighten all mount assembly fasteners after 5–10 hours of usage.
- _____ Gave the dielectric grease tube to the owner and instructed the owner on proper greasing.
- _____ Instructed the owner to change the hydraulic fluid annually.
- _____ Reviewed maintenance and storage instructions.
- _____ Filled out and returned the Owner's Registration Card, or completed registration online at www.westernplows.com.
- _____ Gave the Owner's Manual packet to the owner.
- _____ Discussed any questions the owner may have.

I have covered the above checklist with the customer. _____
Distributor Signature

Distributor Name

I understand the above statements on this checklist. _____
Customer Signature

The following are registered (®) or unregistered (™) trademarks of Douglas Dynamics, L.L.C.: UltraMount®, WESTERN®.

Lit. No. 63002, Rev. 03

Printed in U.S.A.

May 1, 2009

Bulletins



Technical Service Bulletin

WTB-1909
Nov. 14, 2019

Western Products • 7777 N 73rd Street • Milwaukee, WI 53223 • (414) 354-2310 • FAX (800) 236-6692

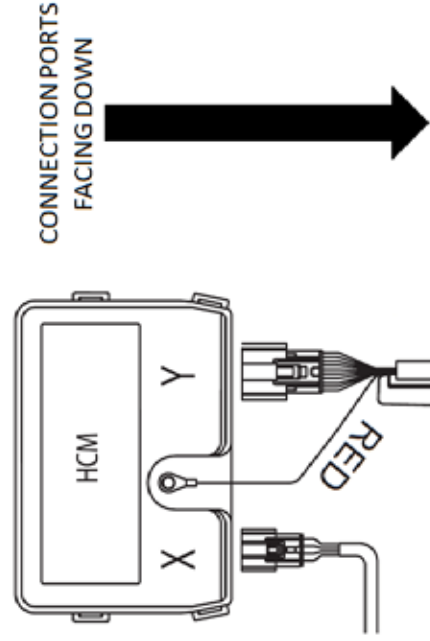
IMPORTANT – PLEASE READ IMMEDIATELY

PRODUCT: NIGHTHAWK™ Headlamp Control Module (HCM)

SUBJECT: Installation Instruction Update

During our ongoing audit process, Western Products has identified variations in installation that could affect the durability of our NIGHTHAWK HCM. We have modified the Installation Instructions to reflect a bestpractice that will ensure product integrity.

Mount the HCM so that the connection ports are facing down towards the ground. If possible, mount the HCM in an area that is protected from road splash.



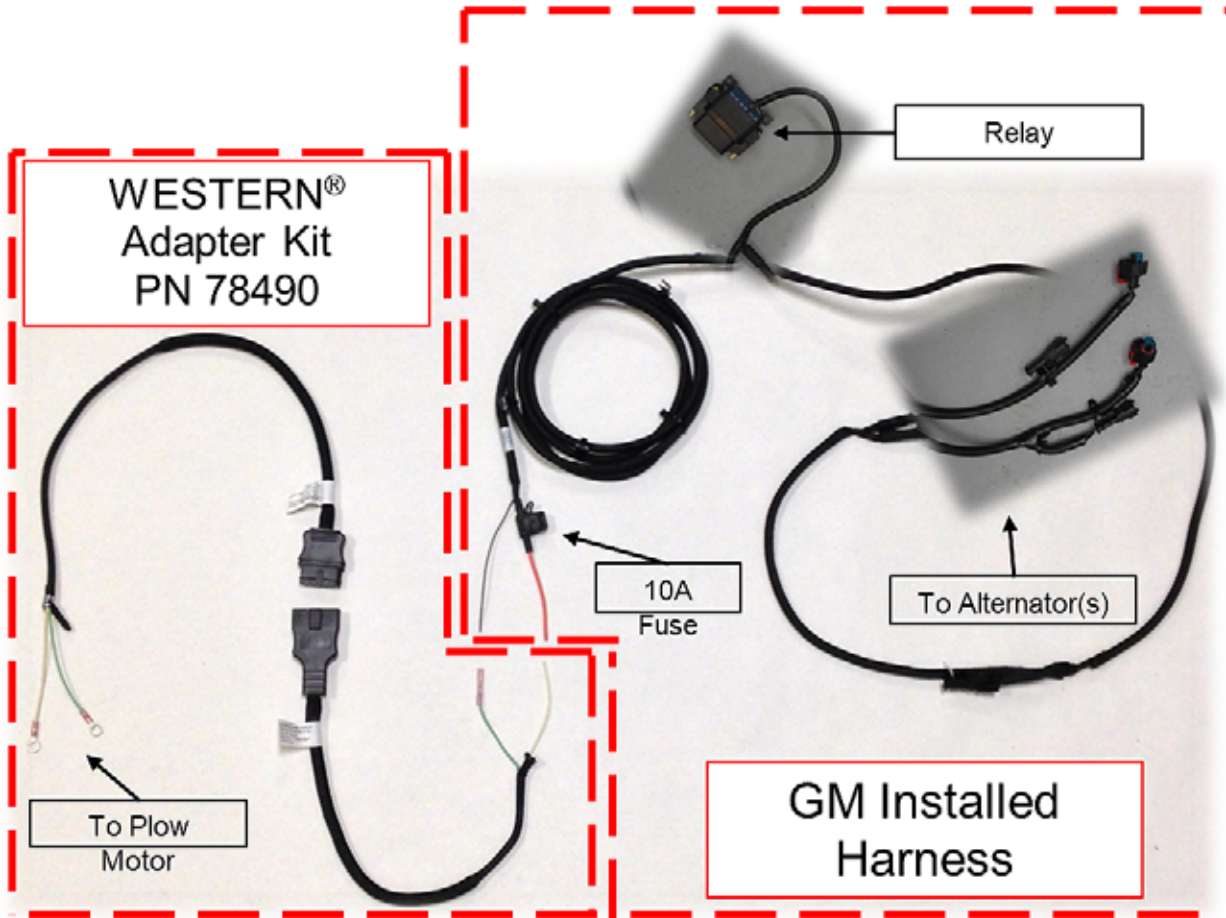
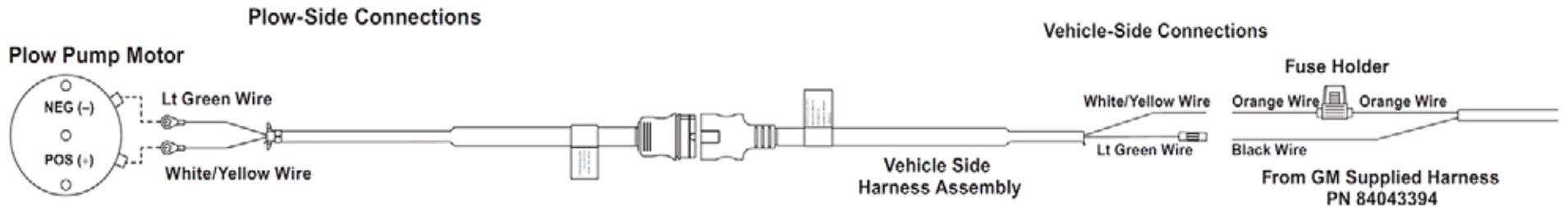
Please contact Technical Service toll-free at (866) 334-3800 should you have any technical questions on this matter.

Please contact the Western Products Technical Service Department if you have any questions concerning this matter.

Route To	Sales Manager	Service Manager	Parts Manager	Chief Mechanic	Mechanic No. 1	Mechanic No. 2
Initial Here						

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GM FIELD ADAPTER KIT



NOTE

*
78490 **NOT** needed in
a 3-plug system
application.
*
The red wire off the GM adapter
will go to the switched side of
motor relay under the hood and
the black will go to ground.
*



Service Bulletin

SP 840
February 25, 2016

Western Products • 7777 N 73rd Street • Milwaukee, WI 53223 • (414) 354-2310 • FAX (414) 354-6664

IMPORTANT – PLEASE READ IMMEDIATELY

SUBJECT: Chevy/GMC Overvolt Fix

ISSUE: Supplemental harness kit to adapt FLEET FLEX snowplows to fit new GM Snow Plow Jumper Harness

Chevy/GMC recently released a harness to combat the overvolt issue involving trucks with snow plow prep packages entering an over-voltage situation during plow operation. The overvolt situation occurs when the alternator has been operating at the high electrical draw of plow operation, the plow shuts off and the momentary spike in voltage will trip errors in the truck, temporarily shutting off various subsystems. Trucks affected are 2014 Sierra/Silverado K1500, and all 2015 and 2016 Sierra/Silverados with the snowplow prep package.

As a result, Western[®] is pleased to announce the approval of a harness kit to allow connection to the Snow Plow Jumper Harness released by Chevy/GMC under the recent Upfitter Integration Bulletin 124b (attached).

Because the relay for Western's plows resides on the plow, this fix necessitates an additional connection for Western's FLEET FLEX snowplows. In these situations please use PN 78490 GM Field Adapter Kit to adapt the system to the Chevy/GMC Snow Plow Jumper Harness.

If you have any questions, please contact Western Customer or Technical Support toll-free at (866)-334-3800.



Sales Bulletin

WP-767
September 19, 2016

Western Products • 7777 N 73rd Street • Milwaukee, WI 53223 • (414) 354-2310 • FAX (414) 354-6664

SUBJECT: Pre-Wet System

ISSUE: Launch of Pre-Wet System for Hopper Spreaders

Pre-Wet System/Hopper Spreader Compatibility Chart:

	Tomado (Pre-2016)	Tomado (2016 and later)	Striker 7' 1.5 cu.yd	Striker 8' 2.0 cu.yd	Striker 9' 3.0 cu.yd	Striker 9' 4.5 cu.yd	Striker 10' 4.5 cu.yd	Striker 10' 6.0 cu.yd
One of	X	X	X	X	X	X	X	X
Full Feature Pump	X	X	X	X	X	X	X	X
25 Gallon Tank Kit	X	X	X	X	X	X	X	X
50 Gallon Tank Kit	X	X	X	X	X	X	X	X
Legacy Adapter (as needed)	X	Not Compatible With These Hoppers						
		Not Compatible With These Hoppers						

- In order to configure a complete system you will need to select a pump kit and a tank kit.
- Tank kits are sold in pairs and all hoppers will accommodate up to four tanks (two kits).
- The Vibrator accessory is not compatible when two tank kits are used.
- ON/OFF Pump kit uses a manual valve to control the flow rate; this valve is located in the pump enclosure.
- The Full Feature Kit provides a secondary in cab control which allows convenient control of the flow rate and indicates if the system is empty.
- Gas and Hydraulic STRIKER™ hopper spreaders will require a master accessory kit in order to integrate the Pre-Wet System.
- Tomado™ hopper spreaders that do not have FLEET FLEX will need a 76405 kit.

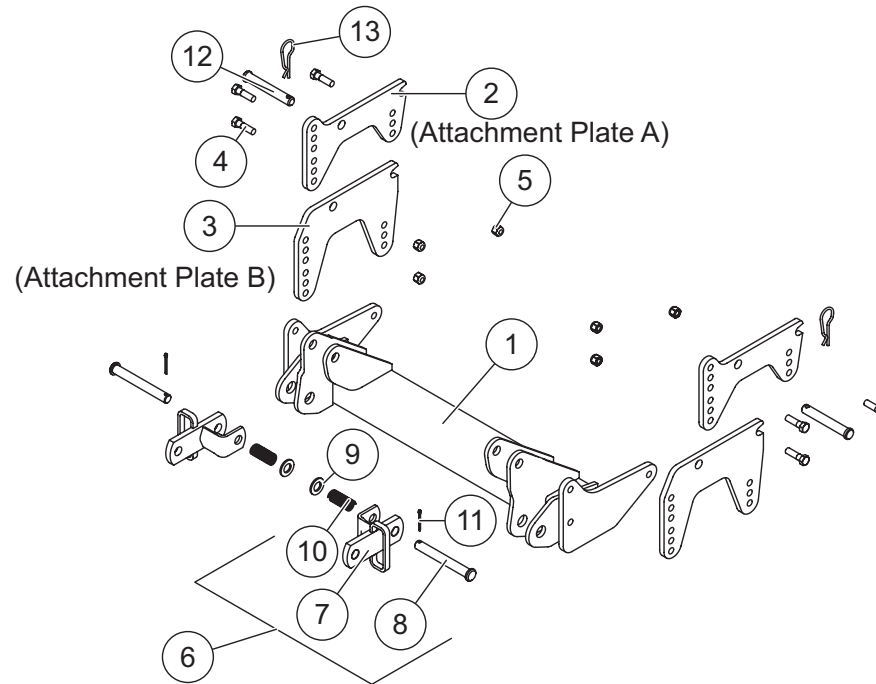
Route To	Sales Manager	Service Manager	Parts Manager	Lead Mechanic
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Blades & Attachments

27170 UltraMount® – UniMount® ADAPTER

PARTS LIST – CONVERSION KIT










100

27170 CONVERSION KIT UltraMount – UniMount							
Item	Part	Qty	Description	Item	Part	Qty	Description
1	40271	1	MOUNT ADAPTER	5	91335	6	1/2-13 HEX LOCKNUT GB
2	40278	2	ATTACHMENT PLATE A	6	63940	2	LINK ARM SERVICE KIT
3	40279	2	ATTACHMENT PLATE B	12	95739	2	3/4 X 5 CLEVIS PIN
4	90101	6	1/2-13 X 1-3/4 HEX CAP SCREW G5	13	91965	2	5/32 HAIRPIN COTTER
63940 LINK ARM SERVICE KIT							
7	63497	1	LINK ARM	10	63356	1	3/4 X 3 SPRING
8	63354	1	3/4 X 6 CLEVIS PIN HEAT-TREATED	11	91911K	1	5/32 X 1-1/2 COTTER PIN KIT
9	91147	1	3/4 FLAT WASHER				
G = GRADE							

RECEIVERS GUIDE

PLOW	MOUNT	DS KIT	PS KIT	DS	PS	PIN	HAIRPIN	OTHER
HTS™	UT	69611	69610			69663		63212 SPACER
MIDWEIGHT™	UT	67858	67859			67665	91965K	
PRO-PLOW®	UT	67858	67859			67665	91965K	
PRO-PLOW SERIES 2	UT	67858	67859			67665	91965K	
PRO-PLUS®	UT	67858	67859			67665	91965K	
MVP®	UT	67858	67859			67665	91965K	
MVP PLUS™	UT	67858	67859			67665	91965K	
WIDE-OUT™	UT	67858	67859			67665	91965K	
STANDARD	UT	67858	67859			67665	91965K	
DEFENDER™		83791	83792			84610 RECEIVER PIN		83886 HITCH PIN
Suburbanite™		27754	27755	27146	27611			
IMPACT™		83637	83638			84610		
MIDWEIGHT™	UT2	76722	76718			42498	91965K	
PRO-PLOW S2								
PRO-PLUS	UT2	76722	76718			42498	91965K	
PRO-PLUS® HD	UT2	96294	96295			95739	42142	84611 PIN KIT
MVP PLUS™	UT2	76722	76718			42498	91965K	
MVP 3™	UT2	76722	76718			42498	91965K	
MVP 3 10'6"	UT2	96294	96295					84611 PIN KIT
PRODIGY™	UT2	76722	76718			42498	91965K	
WIDE-OUT	UT2	76722	76718			42498	91965K	
WIDE-OUT S2	UT2	76722	76718			42498	91965K	
WIDE-OUT™ XL								


SHOES GUIDE

SNOWFLOW	KIT (qty)	SHOE ASSY (qty 1)	HD (accessory)	SHOE (not sellable #)	DIMENSIONS	STYLE
DEFENDER™	83845					
Suburbanite™	27710					
HTS™	69570	49067 (2)		60028	9" H 5.8" OCTAGONAL BASE	
MIDWEIGHT™	64392					
WIDE-OUT™ / WIDE-OUT™ XL / MVP PLUS™	44277-1	53595 (2)		53596	8.5" H 1" SHAFT 4" BASE 5.75" TOP BASE .5" PIN HOLE	
PRODIGY™	49853 (1)	53595		53596		
MVP 3™ / MVP 3 10'6"	43088 (1)			50695	4.6" H 1" SHAFT 8" X 4" BASE .5 PIN HOLE	
MVP 3 / MVP 3 10'6"			86871 KIT	86675 (HD)	6.5" H	
PRO-PLUS®		49071 (STD)		42301	10" H 1" SHAFT 4" BASE 6.25" TOP BASE .5" PIN HOLE	
PRO-PLUS® HD	84506-1 (1)	42301	86871 KIT	60217	10" H 1" SHAFT 4" BASE 6.25" TOP BASE .5" PIN HOLE	
PRO-PLOW®		49071 (STD)		42301		
MVP®		62637 (STD)		21749	5.6" H 1" SHAFT 4" BASE 5.75" TOP BASE .5" PIN HOLE	
STANDARD		49067 (2)	49071 (2)	60028 STD 42301 HD		

BACK DRAG EDGES

Kit Part #	Cutting Edge Part #	Hardware Kit Part #	Bolt Spec	Applicable Plow Model	Thickness	Height	Length	# of Holes	Hole Size	Hole Type	Top to Hole	Edge to Center of 1st. Hole	Edge to Center of 2nd. Hole	Edge to Center of 3rd. Hole
Straight Blades														
N/A	64758	N/A	Reuses cutting edge bolts	7'6" Steel (HTS™, MIDWEIGHT™, PRO-PLOW® Series 2, PRO-PLUS®) & (Poly MIDWEIGHT, Poly PRO-PLOW Series 2)	.25"	5.5"	90"	12	.875" to .890"	Slotted	1.25"	2.5"	5.5"	12.5"
N/A	66892	N/A	Reuses cutting edge bolts	8' Steel (PRO-PLOW Series 2, PRO-PLUS & Poly PRO-PLOW Series 2)	.25"	5.5"	96"	10		Slotted	1.25"	2.5"	5.5"	15.5"
N/A	66999	N/A	Reuses cutting edge bolts	8'6" Steel (PRO-PLOW Series 2, PRO-PLUS)	.25"	5.5"	102"	10		Slotted	1.25"	2.5"	5.5"	18.5"
N/A	66991	N/A	Reuses cutting edge bolts	9' Steel (PRO-PLOW Series 2, PRO-PLUS)	.25"	5.5"	108"	10		Slotted	1.25"	2.5"	5.5"	21.5"
Winged Plows														
52278	64758	29351	(10) 5/8-11 x 2-1/2 CB G5	7'6" WIDE-OUT™, WIDE-OUT™ Gen 2	.25"	5.5"	90"	12	.875" to .890"	Slotted	1.25"	2.5"	5.5"	12.5"
81985	41879	29351	(10) 5/8-11 x 2-1/2 CB G5	8' WIDE-OUT™ XL	.25"	5.5"	96"	10		Slotted	1.25"	2.5"	5.5"	15.5"
N/A	42437	N/A	Reuses cutting edge bolts	PRODIGY™	.25"	6"	80.5"	8		Slotted	1.25"	1"	9.15"	21.59"
V-Plows														
44281-3	N/A	43591	(14) 5/8-11x2-1/2 Carriage Bolt G5	7'6" MVP Plus™, MVP 3™, ENFORCER™: NOTE: Can not be used with shoes.	.25"	4.5"	37.56"	6	.75"	Round/Slotted	.938"	0.625"	3.625"	22.156"
44282-3	N/A	43591	(14) 5/8-11x2-1/2 Carriage Bolt G5	8'6" MVP PLUS, MVP 3: NOTE: Can not be used with shoes.	.25"	5.125"	43.563"	6	.75"	Round	.938"	.625"	3.625"	10.69"
44283-3	N/A	43591	(14) 5/8-11x2-1/2 Carriage Bolt G5	9'6" MVP PLUS, MVP 3 and 10'6" MVP 3: NOTE: Not to be used on 10'6" MVP 3 and can not be used with shoes.	.25"	5.125"	49.56"	7	.75"	Round	.938"	.625"	3.625"	10.69"

HINGED BLADE CUTTING EDGE REFERENCE SHEET

 HINGED BLADE CUTTING EDGE REFERENCE SHEET																		
Kit Part #	Wing C.E. Part #	Hardware Kit Part #	Bolt Spec	Mark Bag w/ (? = Not Spec'd)	Center C.E. Part # w/ Hardware	Applicable Plow/Model	Thick	Height	Length	Std.	Opt.	# of Holes	Hole Size	Hole Type	Distance Top to Hole	Edge to Center of 1st Hole	Edge to Center of 2nd Hole	Edge to Center of 3rd Hole
49799	42383	41774 †	(8) – 5/8-11 x 2-1/2 CB G5	?	49677 †	PRODIGY™	1/2"	6"	83.5"	X		8	0.68 x 1.375"	Slotted	1.25"	2.5"	10.65"	23.09"
64775		29351NN	(10) – 5/8-11 x 2-1/2 CB G5	29351NN	48762 †	WIDE-OUT™ (S/N 180209 – lower) WIDE-OUT Gen-2 (S/N 180210 – higher)	1/2"	6"	90.0"	X		10	0.68 x 1.375"	Slotted	1.25"	2.5"	5.5"	12.5"
81996						WIDE-OUT Gen-2 (S/N 180210 – higher)	5/8"	6"	90.0"		X	10	0.68 x 1.375"	Slotted	1.25"	2.5"	5.5"	12.5"
63980		29351	(10) – 5/8-11 x 2-1/2 CB G5	29351NN	48761 †	WIDE-OUT™ XL	1/2"	6"	96.0"	X		10	0.68 x 1.375"	Slotted	1.25"	2.5"	5.5"	15.5"
81995						WIDE-OUT XL	5/8"	6"	96.0"		X	10	0.68 x 1.375"	Slotted	1.25"	2.5"	5.5"	15.5"
	**50626	50642	1/2-13 x Carriage Bolt G5			WIDE-OUT (S/N 180200-lower) Urethane C.E.					X							
	50645		(Retainer Bar – 50644)			DS or PS												
	57865	11009	1/2-13 x 1-1/2 Carriage Bolt G8			WIDE-OUT Steel Wing C.E. (Accessory)					X							
	57865	11010				WIDE-OUT Gen-2 (S/N 180210 – higher)					X							
	81148					Steel Edge DS												
	81149					Steel Edge PS												
	**81994	94802	(Retainer Bar – 50644)			Urethane Edge Kit					X							
	81141	11010				WIDE-OUT XL					X							
	95060		(Retainer Bar – 50644)			Steel Wing Edge DS												
	95061					Steel Wing Edge PS												
	81993	94802				Urethane Edge Kit					X							

† Not a sellable part.

‡ No center flap kit.

** Does not include retainer bar.

HINGED BLADE CUTTING EDGE REFERENCE SHEET (continued)


WESTERN															HINGED BLADE CUTTING EDGE REFERENCE SHEET														
Kit Part #	Wing C.E. Part #	Hardware Kit Part #	Bolt Spec	Mark Bag w/ (? = Not Spec'd)	Center C.E. Part # w/ Hardware	Applicable Plow/Model	Thick	Height	Length	Std.	Opt.	# of Holes	Hole Size	Hole Type	Distance Top to Hole	Edge to Center of 1st Hole	Edge to Center of 2nd Hole	Edge to Center of 3rd Hole											
44284-2	44996-1	29688	(14) – 5/8-11 x 2 CB G5	?	29675-1	7'6" MVP Plus & MVP 3	1/2"	6"	34.75"		X	5	0.690 x 1.50	Slotted	1.56	3.94	6.94	18.72											
44564-2	44897	29688			29675-1	8'6" MVP Plus UltraMount® & MVP 3	3/8"	6"	40.75"	X		5	0.690 x 1.38	Slotted	1.56	3.81	6.81	20.47											
44285-2	44997	29688			29675-1	8'6" MVP Plus UltraMount & MVP 3	1/2"	6"	40.75"		X	5	0.690 x 1.38	Slotted	1.56	3.81	6.81	20.47											
44567-2	44898	29688			29675-1	9'6" MVP Plus UltraMount & MVP 3	1/2"	6"	47.75"	X		5	0.690 x 1.38	Slotted	1.56	3.81	6.81	23.47											
21608 ‡	21587 †	21610 †	(5) – 1/2-13 x 2 CB G8	?	Not in kit	8'6" MVP® (DS or PS) UniMount® & UltraMount	3/8"	6"	49.88"	X		5	0.590 x 0.590	=	1.39	2	16.13	30.25											
28407 ‡	28406 †	21610 †			Not in kit	8'6" MVP (DS or PS) UniMount & UltraMount	1/2"	6"	49.88"		X	5	0.590 x 0.590	=	1.39	2	16.13	30.25											
28409	28406 †	21610 †			62636	8'6" MVP UniMount & UltraMount	1/2"	6"	49.88"		X	5	0.590 x 0.590	=	1.39	2	16.13	30.25											
62649	63280 †	21610 †			Not in kit	8'6" MVP (DS) w/Carbide UniMount & UltraMount	3/8"	6"	50.25"		X	5	0.590 x 0.590	=	1.38	2	16.13	30.25											
63284	63281 †	21610 †			Not in kit	8'6" MVP (PS) w/Carbide UniMount & UltraMount	3/8"	6"	50.25"		X	5	0.590 x 0.590	=	1.38	2	16.13	30.25											
63540	62649 & 63284	21610 †			62636	8'6" MVP Kit w/Carbide UniMount & UltraMount	3/8"	6"	50.26"		X	5	0.590 x 0.590	=	1.38	2	16.13	30.25											
63678 ‡	26592 †	21610 †			Not in kit	9'6" MVP (DS or PS) UniMount & UltraMount	1/2"	6"	55.88"	X		6	0.588 x 0.588	=	1.37	2	8	22.13											
66420	63678	21610 †			62636	9'6" MVP UniMount & UltraMount	1/2"	6"	55.88"	X		6	0.588 x 0.588	=	1.37	2	8	22.13											
84827	84828	83623	(10) – 1/2-13 x 1-1/2 CB G8	?	–	IMPACT™ UTV V-Plow (Wing C.E. Kit)	1/4"	5"	28.45"	X		5	0.563 x 1.00	Slotted	1.00	2.45	11.45	20.45											
	83622	–	(4) – 1/2-13 x 1-1/2 CB G8	?	84323 & 84325	IMPACT UTV V-Plow (Center C.E. Kit)	1/4"	5"	7.564"	X		2	0.560 x 1.185	Slotted	1.00	N/A	N/A	N/A											

† Not a sellable part.

‡ No center flap kit.

** Does not include retainer bar.

STRAIGHT BLADE STEEL CUTTING EDGE KIT DETAIL

 STRAIGHT BLADE CUTTING EDGE DETAIL																	
Kit Part #	Cutting Edge Part #	Hardware Kit Part #	Bolt Spec	Mark Bag w/ (? = Not Spec'd)	Applicable Plow/Model	Thick	Height	Length	Std.	Opt.	# of Holes	Hole Size	Hole Type	Distance Top to Hole	Edge to Center of 1st Hole	Edge to Center of 2nd Hole	Edge to Center of 3rd Hole
84973	84974	84977	(8) – 1/2-13 x 1-1/2 CB G8	84977NN	IMPACT™ Straight Blade	1/4"	5"	6'	X		8	1.00 x 0.563	Slotted	1.125	1.25	3.668	12
49264	61119 †	41794	(7) – 7/16-14 x 3-1/2 CB G5	?	Sport Utility	1/4"	5"	6'6"	X		7	0.50 X 0.50	□	0.75	4.5	16	27.5
49066	60119 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62504	Standard	3/8"	6"	6'6"	X		8	0.563 x 0.563	□	1.5	2.63	10.88	22.13
93668	93666 †	76512	(8) – 1/2-13 x 1-3/4 CB G8	76512NN	DEFENDER™	1/4"	5"	6'8"	X		6	1.125 x 0.531	Slotted	1.5	2	17.2	32.4
85287	77545 †	76512	(8) – 1/2-13 x 1-3/4 CB G8	76512NN	DEFENDER	3/8"	5"	6'8"		X	6	1.125 x 0.531	Slotted	Slotted	2	17.2	32.4
27713	27123 †	27574NN	(7) – 3/8-16 x 1-1/2 CB G8	?	Suburbanite™	1/4"	5"	6'8"	X		7	0.406 x 0.406	□	1.5	2.25	15.25	2.813
49070	60128 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62504	Standard	3/8"	6"	7'	X		8	0.563 x 0.563	□	1.5	2.63	13.88	25.13
93669	93667 †	76512	(8) – 1/2-13 x 1-3/4 CB G8	76512NN	DEFENDER	1/4"	5"	7'2"	X		6	1.125 x 0.531	Slotted	1.5	3	19	35
85288	77546 †	76512	(8) – 1/2-13 x 1-3/4 CB G8	76512NN	DEFENDER	3/8"	5"	7'2"		X	6	1.125 x 0.531	Slotted	1.5	3	19	35
63541	63471 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62504	LSX	3/8"	6"	7'2"	X		8	0.563 x 0.563	□	1.5	3.63	14.88	26.13
27714	27159 †	27574NN	(7) – 3/8-16 x 1-1/2 CB G8	?	Suburbanite	1/4"	5"	7'4"	X		7	0.406 x 0.406	□	1.5	2.25	16.75	32.13
58814	23939 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62504	Conventional (center punch)	3/8"	6"	7'6"	X		8	0.563 x 0.563	□	3	2.63	16.88	28.13
69499	69505	69425	(10) – 5/8-11 x 2 CB G5	69425	HTS™	5/16"	6"	7'6"	X		10	0.688 X 1.375	Slotted	1.125	2.5	5.5	12.5
28594	48760 †	69425	(10) – 5/8-11 x 2 CB G5	69425	HTS™ & MIDWEIGHT™	3/8"	6"	7'6"		X	10	0.688 X 1.375	Slotted	1.13	2.5	5.5	12.5
49088	60387 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62504	PRO-PLOW® Series 2	3/8"	6"	7'6"	X		8	0.563 x 0.563	◇	1.25	2.63	16.88	28.13
49346	62489 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62504	PRO-PLOW Series 2	1/2"	6"	7'6"		X	8	0.563 x 0.563	◇	1.25	2.63	16.68	28.13

† Not a sellable part.

Continued on following page.



STRAIGHT BLADE CUTTING EDGE DETAIL (continued)

Kit Part #	Cutting Edge Part #	Hardware Kit Part #	Bolt Spec	Mark Bag w/ (? = Not Spec'd)	Applicable Plow/Model	Thick	Height	Length	Std.	Opt.	# of Holes	Hole Size	Hole Type	Distance Top to Hole	Edge to Center of 1st Hole	Edge to Center of 2nd Hole	Edge to Center of 3rd Hole
49312	62119 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62504	Standard Poly & Poly PRO-PLOW® Series 2	3/8"	6"	7'6"	X		8	0.563 x 0.563	◇	2.06	2.63	16.88	28.13
49350	62497 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62504	Standard Poly & Poly PRO-PLOW Series 2	1/2"	6"	7'6"		X	8	0.563 x 0.563	◇	2.06	2.63	16.88	28.13
64775	48762 †	29351	(10) – 5/8-11 x 2-1/2 CB G5	29351NN	PRO PLUS® & WIDE-OUT®	1/2"	6"	7'6"	X		10	0.688 X 1.375	Slotted	1.25	2.5	5.5	12.5
49080	60396 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62504	Conventional	3/8"	6"	8'	X		8	0.563 x 0.563	□	1.13	2.5	15.5	28.5
49089	62494 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62504	PRO-PLOW Series 2	3/8"	6"	8'	X		8	0.563 x 0.563	◇	1.25	2.5	15.5	28.5
49347	62494 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62504	PRO-PLOW Series 2	1/2"	6"	8'		X	8	0.563 x 0.563	◇	1.25	2.5	15.5	28.5
49328	62413 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62504	Poly PRO-PLOW Series 2	3/8"	6"	8'	X		8	0.563 x 0.563	◇	2.06	2.5	15.5	28.5
49351	62498 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62504	Poly PRO-PLOW Series 2	1/2"	6"	8'		X	8	0.563 x 0.563	◇	2.06	2.5	15.5	28.5
63980	48761 †	29351	(10) – 5/8-11 x 2-1/2 CB G5	29351NN	PRO PLUS	1/2"	6"	8'	X		10	0.688 X 1.375	Slotted	1.25	2.5	5.5	15.5
49086	60313 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62506	PRO-PLOW Series 2	3/8"	6"	8'6"	X		8	0.563 x 0.563	◇	1.25	2.5	18.5	31.5
49348	62495 †	62504	(8) – 1/2-13 x 1-3/4 CB G8	62506	PRO-PLOW Series 2	1/2"	6"	8'6"		X	8	0.563 x 0.563	◇	1.25	2.5	18.5	31.5
63985	48763 †	29351	(10) – 5/8-11 x 2-1/2 CB G5	29351NN	PRO PLUS	1/2"	6"	8'6"	X		10	0.688 X 1.375	Slotted	1.25	2.5	5.5	18.5
49251	60656 †	62506	(10) – 1/2-13 x 1-3/4 CB G8	62506	PRO-PLOW	3/8"	6"	9'	X		10	0.563 x 0.563	◇	1.25	2.5	5.5	24.5
49349	62496 †	62506	(10) – 1/2-13 x 1-3/4 CB G8	62506	PRO-PLOW	1/2"	6"	9'		X	10	0.563 x 0.563	◇	1.25	2.5	5.5	24.5
58817	23854 †	43240	(12) – 5/8-11 x 2-1/2 CB G5	?	UniMount® HEAVYWEIGHT	1/2"	6"	9'	X		11	0.688 x 0.688	□	1.63	3	6	18
63990	48764 †	29351	(10) – 5/8-11 x 2-1/2 CB G5	29351NN	PRO PLUS & PRO PLUS® HD	1/2"	6"	9'	X		10	0.688 X 1.375	Slotted	1.24	2.5	5.5	21.5
58818	58500 †	43240	(12) – 5/8-11 x 2-1/2 CB G5	?	UniMount HEAVYWEIGHT	1/2"	6"	10'	X		12	0.688 x 0.688	□	1.63	3	6	18
*80295		80298		80298	* PRO PLUS HD Curb Guard Kit * Curb Guard Kit needed along with the 63990 to make up a 10'6" on each curb guard and 9' on the main cutting edge = 10'.												

† Not a sellable part.

CUTTING EDGE KIT DETAIL

Kit Part #	C.E. Part #	Hardware Kit Part #	Bolt Spec	Mark Bag w/(? = Not Spec'd)	Clamp Bar	Applicable Plow/Model	Thick	Height	Length	# of Holes	Hole Size	Hole Type	Distance Top to Hole	Edge to Center of 1st Hole	Edge to Center of 2nd Hole	Edge to Center of 3rd Hole
STRAIGHT BLADE RUBBER CUTTING EDGE KIT DETAIL																
60825	60826	41795 T	(8) – 1/2-13 x 2-3/4 CB G5	?	60827	6'6" – 7'6" Std. &	1"	6"	90"	12	0.69 x 2.00	Slotted	3.00	2.63	5.63	8.63
62556	62344	41789 T	(10) – 1/2-13 x 2-3/4 CB G5	?	62346	8' – 9' PRO-PLOW® Series 2	1"	6"	108"	12	0.69 x 2.00	Slotted	3.00	2.50	5.50	8.50
60831	60032	41784 T	(12) – 5/8-11 x 3-1/2 CB G5	?	60833	9' – 10' HEAVYWEIGHT	1-1/2"	6"	120"	13	0.69 x 2.00	Slotted	3.00	3.00	6.00	18.00
STRAIGHT BLADE POLY CUTTING EDGE KIT DETAIL																
76476	76471 T	86470	(6) – 1/2-13 x 2-1/4 CB G8	86470NN	None	DEFENDER™	1"	5"	6'8"	6	0.588	Circle	1.40	2.00	17.20	32.40
76477	76472 T	86470	(6) – 1/2-13 x 2-1/4 CB G8	86470NN	None	DEFENDER	1"	5"	7'2"	6	0.588	Circle	1.40	3.00	19.00	35.00
STRAIGHT BLADE CARBIDE CUTTING EDGE KIT DETAIL																
74961		70728	5/8-11 x 2-1/2 CB G5	70728	NA	PRO PLUS® HD 3-Piece Kit										
76825	76825					PRO PLUS HD Center	3/4"	6"	53.90"	4	0.68 x 1.37"	Slotted	1.25	7.45	20.45	46.45
76826	76826					PRO PLUS HD Outer	3.4"	6"	27.00"	4	0.68 x 1.37"	Slotted	2.50	5.50	21.50	24.50
WHEELED/BACKHOE/SKID STEER RUBBER CUTTING EDGE KIT DETAIL																
WHEELED LOADERS																
72057		72064		72064	72067	PILE DRIVER™ 12'										
72058		72064		72064	72068	PILE DRIVER 14'								3.00"	15.00"	27.00"
72059		72064		72064	72071	PILE DRIVER 16'										
BACKHOE LOADERS																
72056		72064		72064	72066	PILE DRIVER 10'										
72057		72064		72064	72067	PILE DRIVER 12'								3.50"	15.50"	27.50"
SKID STEER LOADERS																
72061		72074		72074	72072	PILE DRIVER 8'										
72062		72074		72074	72073	PILE DRIVER 10'								3.50"	15.50"	27.50"

T Not a sellable part.

Service Tools

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SERVICE TOOLS AND TEST EQUIPMENT

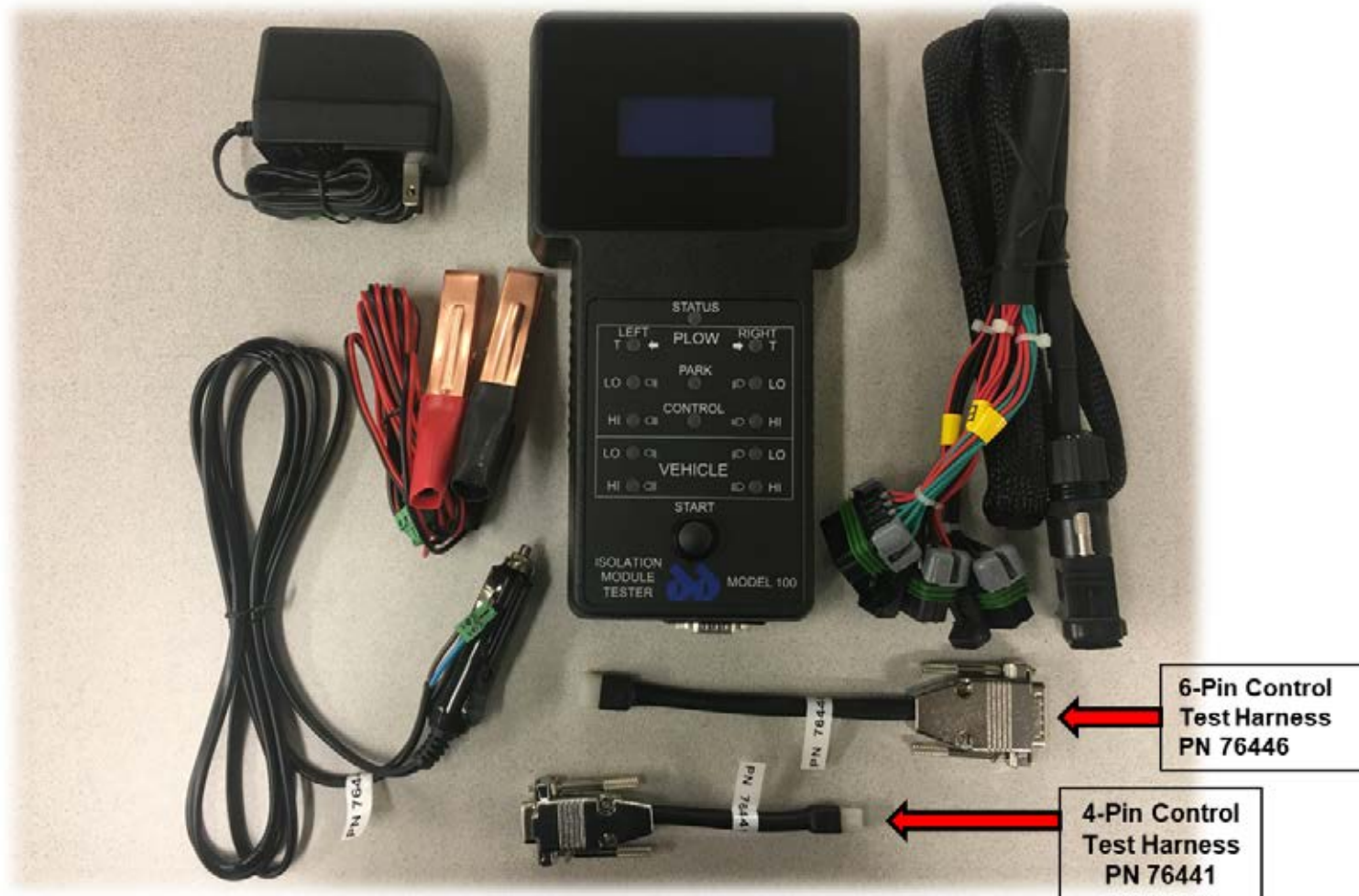
<p>Poppet Seat Service Tool PN 28530</p> 	<p>Pump Shaft Seal Repair Kit PN 28856</p> 	<p>Pressure Test Kit PN 56679</p> 	<p>Motor Bearing Sleeve Repair Kit PN 64589</p> 
<p>Spring Replacement Tool PN 20043-1</p> 	<p>PRODIGY™ Wing Spring Removal Tool PN 69780</p> 	<p>Isolation Module 10-Pin Tester PN 28957</p> 	<p>Harness Kit Diagnostic PN 29290-2</p> 
<p>Adapter Breakdown:</p> <ul style="list-style-type: none"> 4-pin adapter PN 76441 6-pin adapter PN 76446 DC outlet adapter PN 76448 	<p>Vehicle Isolation Module/ Control Tester (PN 41000-1)</p> 	<p>Master Control 78800</p> 	

VEHICLE ISOLATION MODULE/CONTROL TESTER

PN 41000-1, Lit. No. 76491

What can be tested?

- 3-Port Isolation Modules 29070-1, 29760-1, 29760-2
- 4-Pin & 6-Pin Hand-Held Controls
- 4-Pin & 6-Pin Joystick Controls



SOLENOID COIL ACTIVATION TEST (SCAT)

Solenoid Coil Activation Test (SCAT)



What is the Purpose of a SCAT Test?

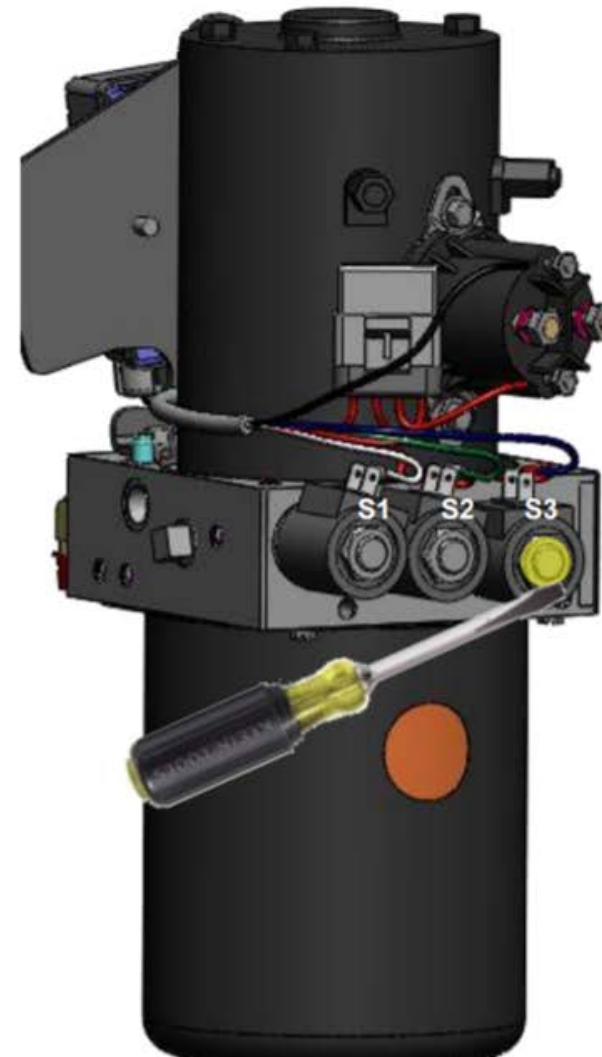
- *Eliminate an Electrical Problem*

Tools Needed:

- Screwdriver
- Continuity Tester (Multi-Meter)
- Blade Movement Chart

Mechanics Guide

BLADE MOVEMENT		RAISE	LOWER	ANGLE RIGHT 	ANGLE LEFT 
MOTOR	M	ON		ON	ON
SV08-2004	S1		ON		
SV08-31	S2			ON	ON
SV08-40	S3	ON			ON

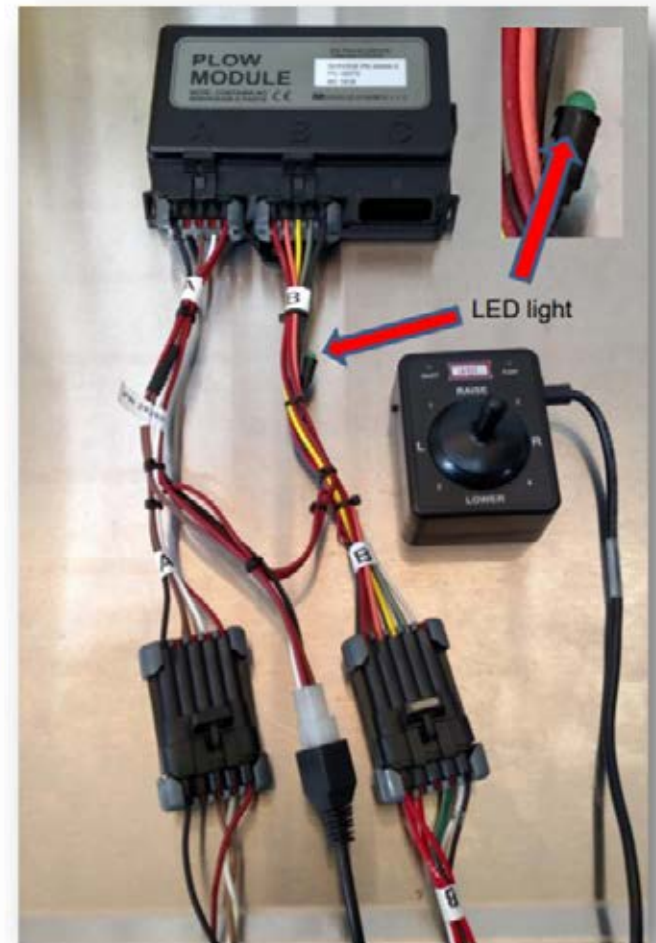


Diagnostic Harness Kit

PN 29290-2

This diagnostic harness kit can be used with or without the snowplow connected to a vehicle

1. Unplug the snowplow connectors from Ports A and B of the Plow Module.
2. Connect the diagnostic harness connectors A and B to the matching ports on the Plow Module (A to A and B to B).
3. Connect the snowplow control into the 4-position control connector either in the cab of the vehicle or on the diagnostic harness.



Plow module not included

Miscellaneous

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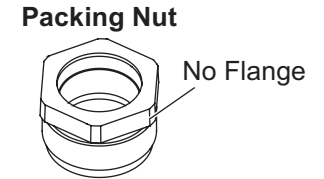
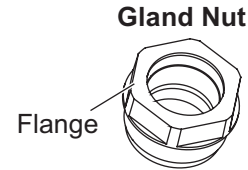
TORQUE CHART FOR HYDRAULIC UNITS (straight blades and V-plows with 6-valve hydraulic unit only)

HYDRAULIC UNIT COMPONENTS

Straight Blades and V-Plows		
Location	Fastener Size	Torque (in-lb)
Pump Cap Screws	5/16"-18 x 2-1/2" with Flat Washer or 5/16"-18 x 2-1/4" without Flat Washer	150–160
Motor Terminals (+ and –)	5/16"-18 or 5/16"-24 Nut	50–60
Motor to Manifold Cap Screws	1/4"-20 x 6-1/4" Long	55–65
Reservoir Screws	#10-24 x 5/16" Long	30–35
Valve Cartridges	7/8" Head Hex	120–144
Coil Nuts	3/4" Head Hex Jam Nut	40–60
Cartridge/Coil Cover Screws	#8-32 x 1/2" Long	15–20
SAE O-Ring Plugs	1/8" or 5/32" Internal Hex	55–65
Lift Frame Cross Member to Manifold Cap Screw (no washer)	3/8"-16 x 1" Long	180–240
Manifold Mount Bolts	1/4"-20 x 2-3/4" Long	105–115

V-Plows Only		
Location	Fastener Size	Torque (in-lb)
Check Valves	11/16" Hex Head	120–144
Secondary to Primary Manifolds	1/4"-20 x 2-1/2" Long	105–115

RAM NUTS



Gland Nut Rams (Hex Flange Head on Nut)

Piston Locknut to Rod (Double-Acting Rams Only)

- **2" Rams:** 100–120 ft-lb
- **1-1/2" Rams:** 35–40 ft-lb

Gland Nut

- **1" Single-Acting & 1-1/2" Double-Acting Rams:** 120–150 ft-lb
- **All Other Rams:** 150–180 ft-lb
- **Alternate Method:** Thread nut into coupling. Insert a feeler gauge (0.015" for 1" single-acting and 1-1/2" double acting rams, 0.012" for all other rams) between the front surface of the cylinder tube face and the hex of the gland nut. Tighten the gland nut until it is snug against the feeler gauge. Remove the feeler gauge, and tighten the gland nut an additional **1/4 turn**. This adjustment procedure will provide the torque listed above. Undertightening may result in nut loosening during snowplow operation.

Packing Nut Rams (Hex Head on Nut)

Lift Ram Packing Nut (Single-Acting Rams Only)

- Tighten packing nut not more than 1/4 turn after you feel packing nut contact packing. Overtightening affects ram operation and packing life.

TORQUE CHART FOR HYDRAULIC UNITS (straight blades and V-plows with 6-valve hydraulic unit only)

HYDRAULIC HOSES AND FITTINGS

NOTE: Overtightening JIC hose fitting ends will result in a fractured fitting.

DO NOT use any type of sealant or tape on the fittings or hoses. This could damage product. Always use two wrenches to ensure proper tightening of fittings and hoses.

SAE O-Ring Style

Fittings

1. Turn jam nut on fitting as far back as possible.
2. Lubricate O-ring with clean hydraulic fluid.
3. Screw fitting into port by hand until the washer contacts port face and shoulder of the jam nut threads.
4. Unscrew fitting to proper position no more than one full turn.
5. Using two wrenches, hold fitting body in position and tighten jam nut until the washer again contacts port face, then tighten an additional 1/8 to 1/4 turn to lock fitting in place. Final torque on the jam nut should be approximately 20 ft-lb.

Hydraulic Hoses

1. Screw flare nut onto fitting flare and hand tighten.
2. Align hose so there are no twists or sharp bends.
3. Using two wrenches, hold the hose in position and tighten flare nut 1/8 to 1/4 turn beyond hand tight. Final torque on the flare nut should be approximately 20 ft-lb.

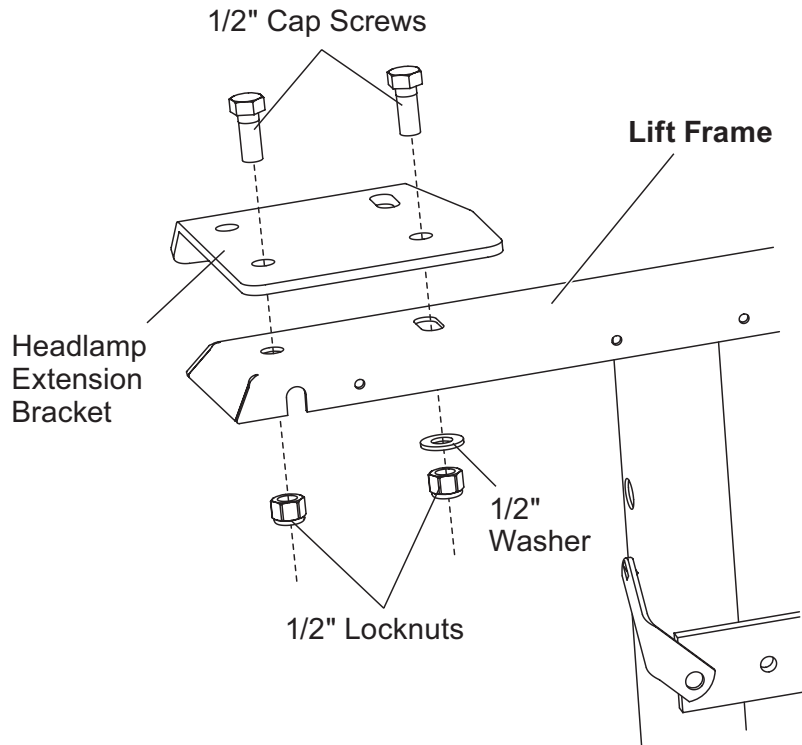
NPTF Pipe Thread Style

1. Screw fitting into female pipe port to the finger tight position.
2. Wrench tighten fitting to the appropriate turns from finger tight (TFFT) shown in chart stopping at the position where the joining tube can be attached. Avoid overtightening and then backing out the fitting to make the connection as this will likely result in a leaking or weeping connection.

Pipe Thread Size (NPTF)	TFFT
1/8-27	2.0–2.5
1/4-18	1.5–2.0
3/8-18	2.0–2.5
1/2-14	2.0–2.5
3/4-14 & Larger	1.5–2.0

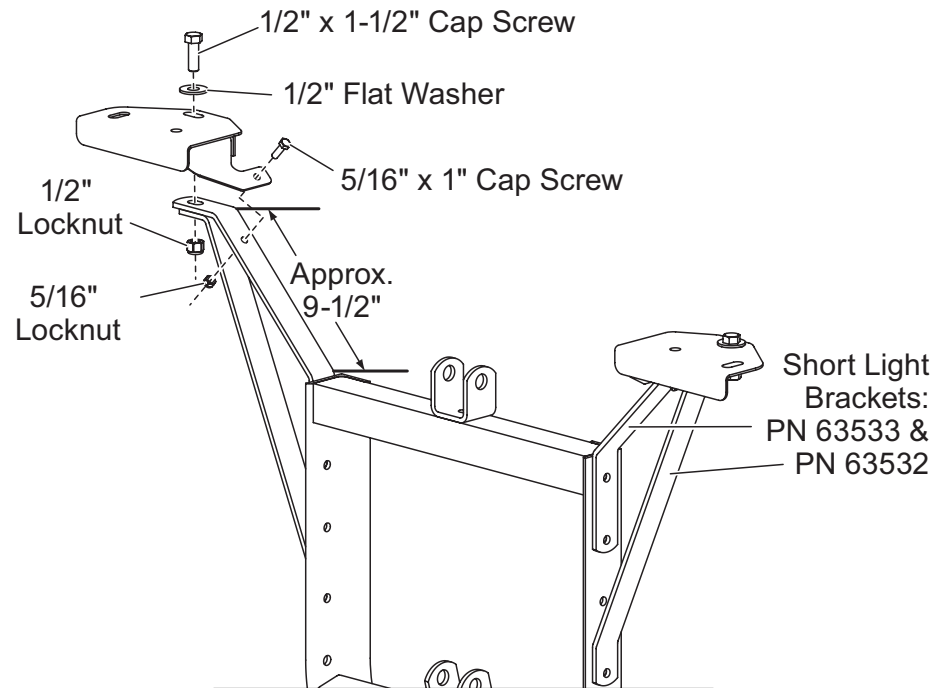
WESTERN® SNOWPLOW HEADLAMP BRACKETS

Headlamp Extension Bracket Kit – PN 68210



Headlamp Extension Bracket Kit – PN 28340

There are short and long versions of the existing headlamp mounting brackets on the UniMount® upper lift frame. Before installing the Headlamp Extension Bracket Kit and your new headlamps, replacing the long brackets with the shorter versions is recommended.



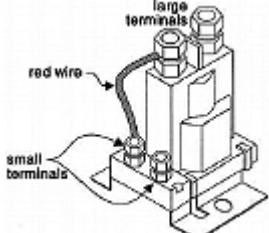
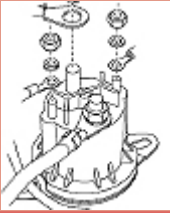

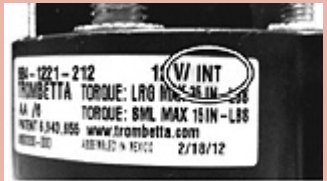
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PLOW HARNESS REPAIR ENDS

PLOW HARNESS REPAIR ENDS			
Part Number	Plow Side/Vehicle Side	Pins	Length
27063W	Vehicle Side	3-Pin	25"
27067W	Vehicle Side	7-Pin	
66431	Vehicle Side	11-Pin	18"
49038	Vehicle Side	9-Pin	10.25"
49310	Vehicle Side	12-Pin	11.88"
49317	Plow Side	9-Pin	20"
49319	Plow Side	12-Pin	20"
49366K	Kit	9-Pin	
49367K	Kit	12-Pin	
49307	Not available separate from kit 49366K	9-Pin	22"
49309	Not available separate from kit 49367K	12-Pin	22"

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MOTOR RELAYS

Part Number	Type	Description	Applications	
56131	Continuous Non FLEET FLEX		All non FLEET FLEX snowplows minus the V-plows	
56131K-1	Continuous Non FLEET FLEX		Including the UltraMount® MVP® snowplows	
56131K-2	Continuous Non FLEET FLEX	DO NOT use continuous-duty relay on FLEET FLEX system snowplows	All non FLEET FLEX snowplows including the UltraMount MVP snowplows	
42902	Intermittent FLEET FLEX	<ul style="list-style-type: none"> Used on FLEET FLEX system equipped snowplows Operates at a lower voltage DO NOT use intermittent-duty relay on non FLEET FLEX snowplows because it: <ul style="list-style-type: none"> Increases internal heat Decreases the life of the control 	All FLEET FLEX snowplows minus the UTVs and ENFORCER™ snowplows	
52290	Intermittent FLEET FLEX		UTV – Straight and V-plow ENFORCER V-plow	

VEHICLE ISO MODULES					
MODULE PN	PORTS	COMPONENTS	PREVIOUS VERSION	UPGRADE NOTES	PIC
29760-1 *	3-Port	29760-1	29760	Soft start was built into the module on 29760-1.	
29760-2	3-Port	29070-1 ISO Module and 76272 10-pin w/SS	29760-1; 29760	Soft start was removed from the 29760-1 module itself and we made it adapter harness PN 76272.	
29070-1	3-Port			Basic standard module.	
26400 *	4-Port	x1 Module			
27781 *	4-Port	x1 Module			
PLOW MODULES					
49567	2-Port	x1 Plow Module	---		
44354-3	3-Port	x1 Module	44354 44354-1 44354-2		
52292-2	3-Port	52292-2			
SPREADER MODULES					
52370	2-Port	x1 Module		5-Post	
78178-1	3-Port	x1 Module	78178		
52385	2-Port	x1 Module	---	4-Post	

* Obsolete

HISTORY OF WHOLE GOOD PARTS WITH DASH NUMBERS

History of Whole Good Parts with Dash Numbers

SNOWPLOW MOUNTS			
PN = Obsolete	Model		COMMENTS
1213	1213	Suburbanite™	Fits '02-'03 Explorer 4-door 4X4 V6 only.
1213-1	1213-1	Suburbanite	Revised due to location of oil filter on '02-'03 V6 Explorer 4X4. Fits V6 & V8 vehicles 2002-2005.
1533	1533	Suburbanite	Fits '02-'04 GM Trailblazer/Envoy/Bravado.
1533-1	1533-1	Suburbanite	Mount modified to accommodate '05 vehicle frame changes.
3713	3713	Suburbanite	New mount released for '97 & later Jeep Liberty.
3713-1	3713-1	Suburbanite	Revised due to changes in 2002 models not encountered in mount development.
3713-2	3713-2	Suburbanite	Revised to accommodate 2008 model year changes. Fits vehicles 2002-2013.
31303	31303	Suburbanite	Fits 2004-2009 Nissan Titan.
31303-1	31303-1	Suburbanite	Modified to fit 2009+ Nissan Titan. Fits vehicles 2004-2015.
31543	31543	Suburbanite	Fits 2004-2007 GM Colorado/Canyon. Due to increased vehicle height, the non -1 mount may not fit 2004-2007 GM Colorado/Canyon vehicles.
31543-1	31543-1	Suburbanite	Fits 2004-2010 GM Colorado/Canyon. Bolt-on extension brackets are included for trucks with connecting pin heights greater than 11.5".
31543-2	31543-2	Suburbanite	Fits 2004-2012 GM Colorado/Canyon. Accommodating changes in Colorado/Canyon Z71 "Off Road" package.
31553	31553	Suburbanite	Fits 2007-2015 production date July 1st and earlier. GM K1500/Tahoe/Yukon/ 1500 Suburban/Yukon XL.
31553-1	31553-1	Suburbanite	Fits 2007-2016 -1 mount was due to a nut insert on the frame to accommodate a new "offset crash" structure on production date of July 1, 2015.
32323	32323	Suburbanite	Fits 2005-2015 Toyota Tacoma.
32323-1	32323-1	Suburbanite	Fits 2005-2015 Toyota Tacoma. -1 mount kit will place the plow approximately two inches forward from previous mount version. This kit will be necessary on 2016 model trucks to maintain adequate clearance since the bumper has been extended forward.
42113	42113	Suburbanite	Fits vehicles MY 2003-2009.
42113-1	42113-1	Suburbanite	Modified to fit 2010 M Wranglers & Rubicon models. 42113-1 fits MY 2003-2010.

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HISTORY OF WHOLE GOOD PARTS WITH DASH NUMBERS

History of Whole Good Parts with Dash Numbers

SNOWPLOW MOUNTS			
PN - Obsolete	Model		COMMENTS
62660	3215	UniMount®	Fits all Ford 250–550 SD trucks '99 & later. HOWEVER, if the truck has fog lights, it will need a power steering cooler extension kit, PN 63934. Ref SP-742. Will not fit '03 & later w/6.0L V8 Diesel w/fog lights.
62660-1	3215	UniMount	Fits all Ford 250–550 SD trucks '99 & later, except 6.0L V8 Diesel w/fog lights '03 & later due to cooler change.
63250	3715	UniMount	Fits 1997 & later Jeep Wrangler. Will have to modify mount to fit a 2003 truck due to a frame hole change. Ref SP-572 for modification procedures.
63250-1	3715	UniMount	Changes for a frame hole change on the 2003 truck. Will backfit. Fits vehicles 1997–2005.
63350	3225	UniMount	Fits all Ford 450–550 SD trucks '99 & later (HW /9'6" MVP® applications). HOWEVER, if the truck has fog lights, it will need a power steering cooler extension kit, PN 63934. Ref SP-742. Will not fit '03 & later w/6.0L V8 Diesel w/fog lights.
63350-1	3225	UniMount	Fits all Ford 350–550 SD trucks '99 & later. (HW/9'6" MVP applications). Fits vehicles 1999–2004 early.
63360	3525	UniMount	Fits 1999–2002 GMC/Chevy 1500HD 2500/2500HD/3500. Due to a bumper bracket change, the non -1 mount may not fit a 2003 truck.
63360-1	3525	UniMount	Fits 1999–2003 GMC/Chevy 2500/2500HD/3500 due to a bumper bracket change in the 2003 model. Will backfit to 1999.

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HISTORY OF WHOLE GOOD PARTS WITH DASH NUMBERS

SNOWPLOW MOUNTS <i>(continued)</i>			
63710	1349	UltraMount®	Fits Fords 1980–1991. Superseded by 63710-1.
63710-1	1349	UltraMount	Fits Fords '80 – '91. Dash 1 mounts increase ground clearance and improve hook up on lower F150 and Bronco vehicles.
63883	969	UltraMount	For 2003 Dodge 2500/3500 with a V8 engine only. Does not fit V10 & diesels due to transmission cooler interference.
63883-1	969	UltraMount	For all 2003 Dodge 2500/3500 (gas and diesel). Will still work on the 2006 Ram 2500 & 3500 trucks EXCEPT Laramie packages.
63883-2	969	UltraMount	Backfits to 2003, including trucks with Laramie trim packages.
67830	1299	UltraMount	Fits Ford 1992 to 1996. With the 67830-1, was improved to accommodate spring width variances. Does not affect application, however, could interfere with wider springs on diesel applications. When tightening the thrust arms, it may draw the mounts outward. They must have a center to center dimension on the mount of 30-7/16". This is true for all UltraMount applications.
67830-1	1299	UltraMount	Improved to accommodate spring width variances. Does not affect application. Superseded by 1379.
67830-2	1299	UltraMount	Superseded by 1369 mount. Fits vehicles 1992–1997.
1379	1379	UltraMount	New mount number replaced 67830-1 due to truck height and suspension issues will fit Ford F250–F350 Super Duty 4X4 '92–'97.
1369	1369	UltraMount	New mount number replaces 67830-2 due to truck height and suspension issues. Will fit Ford F150, Bronco 4X4 '92–'97.
67960	3519	UltraMount	Fits 1999 and later 1500 Chevy/GMC. Contains crossbar, does not affect application. Customer can choose to keep or remove crossbar. Crossbar was removed because it wasn't needed and was seen as a weight reduction. Need to notch air dam.
67960-1	3519	UltraMount	Crossbar removed, does not affect application. Need to notch air dam. Fits vehicles 1999–2007.
67981	3529	UltraMount	Fits 1999 and later GMC/Chevy 1500HD, 2500, 2500HD/3500. Contains crossbar, does not affect application. Customer can choose to keep or remove crossbar. Crossbar was removed because it wasn't needed and was seen as a weight reduction. Tabs can be trimmed to fit an '03 Chevy 2500/3500.
67981-1	3529	UltraMount	Tabs were also trimmed due to bumper bracket change. Crossbar removed. Fits '99–'03 Chevy 1500HD/2500/2500HD/3500.
67981-2	33939	UltraMount	Mount redesigned to move attaching point forward and eliminate the need to notch lower air dam on bumper and bumper interference. ('99–'03 Chevy 1500HD/2500/2500HD/2500.)
33939	33940	UltraMount	Fits Dodge 2008–2010 Ram 45/5500. Fits vehicles 2008–2010. Superseded to 33940 mount.

HISTORY OF WHOLE GOOD PARTS WITH DASH NUMBERS

SNOWPLOW MOUNTS (continued)			
33940	33940	UltraMount®	The 33939 mount could not carry over to the 2011 model year 45/5500 vehicles, as there was interference with the radiator. Thus, the previous mount released and used for BLIZZARD® on these vehicles (33940) would fit the 2011 MYs. The 33940 fits model years 2008–2011. Refer to Sales Bulletin WP475.
33940-1	33940	UltraMount	Accommodate enlarged radiator on 2013 and later Ram 4500/5500.
31269	31269	UltraMount	Fits Ford 2008–2010 Super Duty.
31269-1	31269-1	UltraMount	Kit was rev'd to a dash one in order to accommodate 2011 MY Ford Super Duty & diesel applications. Thus, 31269 will fit model years 2008–2010 and only gas engine 2011 models. The 31269-1 will fit model years 2008–2011, all models. Refer to Sales Bulletin WP453.
31599	31599	UltraMount	Fits 2008–2015 production date July 1st and earlier. GM K1500/Tahoe/Yukon/1500 Suburban/Yukon XL.
31599-1	31599-1	UltraMount	Fits 2008–2016+ -1 mount was due to a nut insert on the frame to accommodate a new "offset crash" structure on production date July 1, 2015 & later.
33212-1	33212-1	UltraMount	Fits 2008–__ Isuzu NPR/GM W-series 2008–10 Isuzu NPR, NPR HD, NPR XD kit was changes to -1 to add a "Max GVW when plow installed" label and revise the instructions and parts list to note the label and its placement. This -1 kit allows us to add the NQR and NRR models in addition to what was listed for the non-dash version.
33212-2	33212-2	UltraMount	Driver-side thrust arm was revised to accommodate a larger steering linkage encountered on some 2017 models.
33886	33886	UltraMount	2013 and later Diesel Ram 2500–3500 models.
33886-1	33886	UltraMount	Accommodate larger front body mount for 2014 and later Diesel Ram 2500–3500 models. Fits vehicles 2013–2018 gas/diesel.
35066	35066	UltraMount	Fit Nissan Titan models 2004–2010.
35066-1	35066-1	UltraMount	Because of frame changes to the 2010–2011 model year Titans, the kit was up-rev'd to a -1 kit. The previous mount interfered slightly with the underride structures added by Nissan on the new model year Titans. Refer to Sales Bulletin WP484.
35133	35133	UTV	Fits Kubota RTV/X-Series 2009–__.
35133-1	35133-1	UTV	Fits some RTV (non X-series) models that the 35133 did not.

HISTORY OF WHOLE GOOD PARTS WITH DASH NUMBERS

SNOWPLOW BLADE ASSEMBLIES			
All MVP PLUS™ Blades	All MVP PLUS Blades		Blade assemblies all changed to -1 part numbers: 44475-1, 44575-1, 44485-1, 44585-1, 44495-1, and 44595-1. The -1 part numbers accommodate 4-piece cutting edges. See Sales Bulletin WP-341 for details.
SNOWPLOW AQ&L (BIG BOX) KITS			
PN			COMMENTS
62300		UniMount®	AQ&L to fit HEAVYWEIGHT plows.
62300-1		UniMount	Changes made to accommodate isolation module system.
44225-1	All MVP PLUS Models	UltraMount®	Changes made to the T-frame. Reference Sales Bulletin WP-363. Changes made also apply to Central Hydraulics Big Box for MVP PLUS models, part # 43225-1.
All HEAVYWEIGHT AQ&L Boxes -2		UniMount	Change to dual bulb (H9/H11) NIGHTHAWK™ headlamps plus associated Owner's Manual changes in hydraulics box.
All Big Boxes -1		UltraMount® 2	Change to dual bulb (H9/H11) NIGHTHAWK headlamps in big boxes instead of H13 NIGHTHAWK headlamps.
All Big Boxes -2		UltraMount 2	ONLY a few big boxes were made with a -2 and later all became -3 to make it even across the board.
All Big Boxes -3		UltraMount 2	Change to headlamp kits no longer in big boxes, but ordered separately.
SNOWPLOW HYDRAULIC KITS			
PN			COMMENTS
27516-1			Modified hydraulics to include manifold assembly that was previously being used for the HTS™ snowplow, moving the adjustment for the scrape lock from the lift ram to the manifold. Lift ram also changed as a result. Reference Sales Bulletin WP-412.
27516-2			Revised for literature changes.
64400			ISARMATIC® hydraulic assembly and wiring release.
64400-1			Removed 29047 adapter, as it only required for Suburbanite™ and HEAVYWEIGHT plows.
64400-2			Changed to a -2 for literature changes. Replace 86270 with 64315. Incorrect OM packet.

HISTORY OF WHOLE GOOD PARTS WITH DASH NUMBERS

SNOWPLOW ELECTRICAL KITS			
PN			COMMENTS
61540			Does not contain the extra metal tab which was developed for use with UltraMount® applications so these kits should ONLY be used with UniMount® applications.
61540-1			Contains a metal tab to increase the strength of the headlight bezel. (Can be used on both UniMount and UltraMount applications.)
61550			Does not contain the extra metal tab which was developed for use with UltraMount applications so these kits should ONLY be used with UniMount applications.
61550-1			Contains a metal tab to increase the strength of the headlight bezel. (Can be used on both UniMount and UltraMount applications.)
62550			Does not contain the extra metal tab which was developed for use with UltraMount applications so these kits should ONLY be used with UniMount applications.
62550-1			Contains a metal tab to increase the strength of the headlight bezel. (Can be used on both UniMount and UltraMount applications.)
66640			Does not contain the extra metal tab which was developed for use with UltraMount applications so these kits should ONLY be used with UniMount applications.
66640-1			Contains a metal tab to increase the strength of the headlight bezel, but should ONLY be used with the UniMount MVP® due to hydraulic unit position change on the UltraMount. The wires for the coils will be too short.
66640-2			Designed for UltraMount MVP due to the hydraulic unit position change. Will backfit to UniMount MVP
69889			(2015-__) F-150 (HB3/H11 & LED)
69889-1			Changed 69889 to a -1. Went from unsealed relay connectors to sealed relay connectors. (2015-__) F-150 (HB3/H11 & LED)
72101			K1500 Silverado/Sierra 8-pin HID/LED.
72101-1			Changed 72101 to a -1. Went from unsealed relay connectors to sealed relay connectors. K1500 Silverado/Sierra 8-pin HID/LED.

HISTORY OF WHOLE GOOD PARTS WITH DASH NUMBERS

SNOWPLOW ELECTRICAL KITS			
PN			COMMENTS
73973			2017–2019 Ford SD Quad H13.
73973-1			Changed 73973 to a -1. Went from unsealed relay connectors to sealed relay connectors. Also, the 69826-2 relay kit was built into the plug-in harness 73971-2. Added diode for the control back light. Fits vehicles 2017–2019 Ford SD Quad H13.
73977			2017–2019 Ford SD Quad H13.
73977-1			Changed 73977 to a -1. Went from unsealed relay connectors to sealed relay connectors on the 11-pin vehicle lighting harness. Fits vehicles 2017–2019 Ford SD LED.
73977-2			Changed 73977-1 to a -2 to include the built-in 73999 DRL 10-pin adapter on the plug-in harness 73975-1. Fits vehicles 2017-2019 Ford SD LED.
76048			6-pin adapter kit. Colorado/Canyon.
76048-1			Changed 76048 to a -1. Added new lit PN 95090 Installation Instructions for adapter 76947. Added 76947 adapter this eliminates the plow park light flickering issue when installing our system on vehicles supplying PWM voltage to the vehicle park lights.
8437			Fits '99-'02 GMC/Chevy GMT-800 models.
8437-1			Revised due to different daytime running lamps on Canyon/Colorado. Will backfit all other GM/Chevy applications.
69892			Dodge RAM HD 2500/3500 (2015–__) 7-wire harness kit.
69892-1			Went from unsealed relay connectors to sealed relay connectors on the 11-pin vehicle lighting harness. Dodge RAM HD 2500/3500 (2015–__) 7-wire harness kit.
96618			(2018–Current) Ford F-150 gray LED 16-pin.
96618-1			Changed 96618 to a -1. Changed from unsealed relay connectors to sealed relay connectors.

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HISTORY OF WHOLE GOOD PARTS WITH DASH NUMBERS

SNOWPLOW ELECTRICAL KITS (continued)

PN		COMMENTS
21500-1		Added motor relay -mounting holes for MVP Plus™ snowplows.
56131K-1		Old-style relay does not fit on MVP Plus snowplows.
27480-1		Now includes Colorado & Canyon trucks. HB3/HB4 with white label 4-port module.
23420		GM vehicles only. 4-port application adapter.
29420-1		GM & Tundra vehicles. 4-port application adapter.
28027		Literature in the adapter kit references only the 4-port module.
28027-1		New literature shows 4- and 3-port modules.
28027-2		Changed adapter grounding. Relay ground is now direct to the NEGATIVE (-) battery terminal.
28027-3		Changed from unsealed relay connectors to sealed relay connectors.
29070-1	3-port Module	Modified previous 29070 module to a dash one to cover DRL applications, in addition to non-DRL applications.
29760-2	Soft Start 3-Port Module	Modified previous 29760-1 to a -2. 29760-2 is backwards compatible. Running change is being made to improve product quality and reliability. The new -2 kit will include both a module and an additional "mini-module" harness assembly 76272.
69826	Relay Adapter	Single relay for park lights.
69826-1	Relay Adapter	The-1 went from a single relay to 3 relays. (1) park, (2) turns.
69826-2	Relay Adapter	Changed from unsealed relay connectors to sealed relay connectors.

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HISTORY OF WHOLE GOOD PARTS WITH DASH NUMBERS

SNOWPLOW ELECTRICAL KITS (continued)

PN		COMMENTS
29861	Vehicle Lighting Harness	Single harness with built-in relays PN 29860.
29861-1	Vehicle Lighting Harness	Went to a -1 to make it a single 11-pin harness (22413) and a separate adapter (28027-2).
23661-2	Vehicle Lighting Harness	Went back to a single harness with built-in relays PN 23660.
29861-3	Vehicle Lighting Harness	Changed lit specs for packaging reasons
29861-4	Vehicle Lighting Harness	Changed from unsealed relay connectors to sealed relay connectors.
69804	Lighting Harness	RMA trucks with HIR2/HB3 headlamp type.
69804-1	Lighting Harness	Changed from unsealed relay connectors to sealed relay connectors.
28800-1		Modified H13 headlamp kit to include a 3rd screw in the cover assembly.
29400	3-port Harness	GM vehicles only. 4-port application adapter.
29400-1	3-port Harness	GM & Toyota vehicles.
29400-2	3-port Harness	Modified 29400-1 harness to incorporate adapter capability of 28027-2 for most applications. Reference Sales Bulletin WB-381.
29400-3	3-port Harness	Rev change back to the original -1 version, still including the functionality of the 28027-2 adapter.
29400-4	3-port Harness	Modified the relay, while moving back to the -2 configuration (cover, etc.). Functionality did not change.
29400-5	3-port Harness	Implemented e-literature for the product. Functionality did not change.
29400-6	3-port Harness	Plug-in harness change for Nissan Titan (63436-1 lengthened).
29400-7	3-port Harness	Changed from unsealed relay connectors to sealed relay connectors.
69818	3-port Harness	GM vehicles only with HIR2 or HB3/H11.
69818-1	3-port Harness	Heavier gauge wire added to plug-in harness (69817-1). DRL configuration wires built in.
69818-2	3-port Harness	Changed from unsealed relay connectors to sealed relay connectors.

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HISTORY OF WHOLE GOOD PARTS WITH DASH NUMBERS

SERVICE TOOLS		
PN		COMMENTS
29260-2	Plow Module	Added ability to perform SCAT on UTV V-plow.
41000-1	Iso Module & Control	Added 76489 harness kit to test on 4-pin & 6-pin controls. (Also includes power cord for 12V DC outlet.)
PRO-FLO™ MOUNTS		
67040		For long bed only (1994–1998). Dodge 1500/2500/3500. Will not fit short bed due to exhaust interference.
67040-1		For 1500 Dodge long and short bed (1999–2001), for 2500 long and short bed (1999–2002), for 2500HD long and short bed (2002), for 3500 long bed (1994–present). Fits short bed, '99 & later, due to exhaust change.
67040-2		Frame change on Dodge rear spring shackle in 2000. Retrofits back to 1994 on the long bed, '99 on the short bed 1500/2500HD. For 2000, the 2500 has rear spring shackle interference resulting in -2.
63827		For 1500 Dodge with non-welded trailer hitch.
63827-1		1500 Dodge 2002 & later. Added crossbar and revised mount for welded trailer hitch on '03 models. Fits 2002 & later.
27936-1		For Dodge Ram 2500HD, 3500 applications, modified mount to cover MY 2010 vehicles. Change made pre-season 2010.
27936-2		2014 Ram 25/3500 trucks have a bolt moved on their trailer hitch. Our 27936-1 tailgate spreader uses this bolt as a mount point. The -2 adds a new hole in the rear brackets to pick up this revised bolt position. This kit will fit all trucks covered by 27936 and 27936-1.
65710-1		
PRO-FLO A, Q & L KITS		
All PRO-FLO & PRO-FLO™ 900 with -1	PRO-FLO	Includes baffle extension plate & hardware.

HISTORY OF WHOLE GOOD PARTS WITH DASH NUMBERS

HOPPER SPREADER A, Q & L KITS		
All Tornado™ with -1	Tornado	Upgrade to FLEET FLEX system (2-knob, 6-button control). Electrical components in general got updated.
All Striker™ with -1	Striker	Removed the wooden support beams for shipping and replace them with stainless steel body cross braces.
HOPPER SPREADER P & A		
65605-1	Steel Hopper Spreaders	Added new starter relay kit.
65605-2		Added new 6-pin Tecumseh alternator harness.
65605-3		Update for Briggs & Stratton engine charging wire.
65605-4		Battery tray is made of stainless steel instead of power coated mild steel.
99504	Vibrator Kit	KARRIER COMPANY, #2-200 Karrier Company #2-200 vibrator with 99069 bolt bag.
99504-1	Vibrator Kit	QC 200 vibrator with 95096 bolt bag, 99504-1 is now obsolete and is superseded by 76668 kit.
99505	Primary Work Light	Primary work light for the steel hoppers.
99505-1	Kit–FLEET FLEX System	Added mounting plate to work both on the poly and steel hoppers.
99732	Secondary Work Light	Secondary work light for the steel hoppers.
99732-1	Kit–FLEET FLEX System	Added mounting plate to work both on the poly and steel hoppers.
78117-2	Tornado	Top screen is made of stainless steel instead of powder coated mild steel. (Units built in RKD will continue to use mild steel.)

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VEHICLE MODELS (FOR REFERENCE ONLY)

This guide is FOR REFERENCE ONLY. Consult Quick Match for final determination of exact and current mounts and harnesses.							
DODGE/RAM							
Vehicle Models	Model Years	Mount	Isolation Module	Plug-In Harness Kit	Harness Adapter	Headlamp Type	Notes
Ram 1500 4X4	1994–01	67980	29070-1	29050	–	HB1	
RAM 2500 & 3500 4X4	1994–02	67980	29070-1	29050	29056-1	HB5/HB1	
Durango 4X4	2000–03	3919	29070-1	29050	–	HB5	
Dakota 4X4	2000–04	3919	29070-1	29050	–	HB5	
Ram 1500 4X4	2002–05	63760	29070-1	29050	–	HB5	
Ram 2500, 3500 4X4	2003–09	63883-2	29070-1	29050	–	HB5	
Dakota 4X4	2005–11	33929	29070-1	29049	–	H13	
Ram 1500 Regular Cab 4X4	2006–08	30999	29070-1	29049	–	H13	
Ram 4500, 5500 4X4, 4X2	2008–12	33940	29070-1	29049	–	H13	
Ram 1500	2009–12	33949	29070-1	29049		H13	
Ram 1500	2009–18	33949	29070-1	29049	28027-2 &69826-2	HB3/H11	
Ram 1500	2013–18	33949	29070-1	69804-1		HIR2/HB3	
Ram 1500 Rebel	2016–18	33949	29070-1	29049	28027-2 &69826-2	HB3/H11	
Ram 1500 Rebel	2016–18	33949	29070-1	69804-1		HIR2/HB3	
Ram 1500 Classic	2019	33949	29070-1	69804-1		HIR2/HB3	
Ram 1500 Classic	2019	33949	29070-1	29049	28027-2 &69826-2	HB3/H11	
Ram 1500 Rebel Classic	2019	33949	29070-1	69804-1		HIR2/HB3	
Ram 1500 Rebel Classic	2019	33949	29070-1	29049	28027-2 &69826-2	HB3/H11	

This guide is FOR REFERENCE ONLY. Consult Quick Match for final determination of exact and current mounts and harnesses.

DODGE/RAM (continued)

Vehicle Models	Model Years	Mount	Isolation Module	Plug-In Harness Kit	Harness Adapter	Headlamp Type	Notes
Ram 1500	2019–__	33950	29070-1	72359		HB3/H11	
Ram 1500	2019–__	33950	29070-1	72192		LED	
Ram 2500/3500	2010–15	33886	29070-1	29049		H13	
Ram 2500/3500	2013–18	33886	29070-1	29049	28027-2 &69826-2	HB3/H11	
Ram 2500/3500	2013–18	33886	29070-1	69804-1		HIR2/HB3	
Ram 2500/3500	2015–18	33886	29070-1	69892-1	HIR2/HB3 & HB3/H11		
Ram 2500/3500	2019–__	33888	29070-1	69892-1		All	
Ram 4500/5500	2013–18	339401	29070-1	29049	28027-2 &69826-2	HB3/H11	
Ram 4500/5500	2015–18	339401	29070-1	69804-1		HIR2/HB3	
Ram 4500/5500	2015–18	339401	29070-1	69892-1	HIR2/HB3 & HB3/H12		
Ram 4500/5500	2019–__	33889	29070-1	69892-1		All	
Aspen, Durango 4X4	2004–10	33929	29070-1	29049	–	H13	DEFENDER™
Dakota 4X4	2005–11	33929	29070-1	29049	–	H13	DEFENDER
Ram 1500 Regular Cab 4X4	2006–08	33913	29070-1	29049	–	H13	DEFENDER
Ram 1500	2009–12	33923	29070-1	29049		H13	DEFENDER
Ram 1500	2009–18	33923	29070-1	29049	28027-2 &69826-2	HB3/H11	DEFENDER
Ram 1500	2013–18	33923	29070-1	69804-1		HIR2/HB3	DEFENDER
Ram 1500 Classic	2019–__	33923	29070-1	72192		LED	DEFENDER
Ram 1500 Rebel Classic	2019–__	33923	29070-1	29049	28027-2 &69826-2	HB3/H11	DEFENDER

TOYOTA

Vehicle Models	Model Years	Mount	Isolation Module	Plug-In Harness Kit	Harness Adapter	Headlamp Type	Notes
Tacoma 4X4	1998–04	2313	29070-1	29051	–	HB2	
Tundra 4X4	2007–14	31139	29070-1	29400-7	–	HB3/H11	
Tundra 4X4	2014–16	31139	29070-1	29051		HB2	
Tundra 4X4	2014–17	31139	29070-1	29051		HB2 2/ LED DRL	
Tundra 4X4	2018–__	31139	29070-1	29051	73999	HB2	
Tundra 4X4	2018–__	31139	29070-1	79147-1		LED	
Tundra 4X4	2000–06	2303	29070-1	29051	–	HB2	DEFENDER™
Tacoma 4X4	1995 1/2–04	2313	29070-1	29051	–	2B/HB2	DEFENDER
Tacoma 4X4	2005–15	32323-1	29070-1	29051	–	HB2	DEFENDER
Tacoma 4X4	2016–__	32323-1	29070-1	29400-7	72100	HB3/H9	DEFENDER
Tundra 4X4	2007–13	32333	29070-1	29400-7	–	HB3/HB11	DEFENDER
Tundra 4X4	2014–17	32333	29070-1	29051		HB2	DEFENDER
Tundra 4X4	2018–__	32333	29070-1	29051	73999	HB2 w/ LED DRL	DEFENDER
Tundra 4X4	2018–__	32333	29070-1	79147-1		LED	DEFENDER

INTERNATIONAL

Vehicle Models	Model Years	Mount	Isolation Module	Plug-In Harness Kit	Harness Adapter	Headlamp Type	Notes
4000 Series	2001–07	32275	29070-1	29053	29235	HB5	
				29053	29234	2B	
4000 Series 2WD	2008–__	31103	29070-1	29053	29235	HB5	
				29053	29234	2B	
TerraStar 4X2	2011–__	35109	29070-1	29053	48236	2B/HB5	
TerraStar 4X4	2013–__	35110	29070-1	29053	48236	2B/HB5	

JEEP

Vehicle Models	Model Years	Mount	Isolation Module	Plug-In Harness Kit	Harness Adapter	Headlamp Type	Notes
Wrangler 4X4	1997–06	3723	29070-1	29051	–	2D	
Wrangler 4X4	2007–16	33220	29070-1	29049	–	H13	
Wrangler 4X4 JK	2017–18	33220	29070-1	29049		H13	
Wrangler 4X4 JK	2017–18	33220	29070-1	29049		LED	
Liberty 4X4	2002–12	3713-2	29070-1	29050	–	HB5	DEFENDER™
Wrangler 4X4	1997–06	3723	29070-1	29051	–	2B	DEFENDER
Wrangler 4X4	2007–16	42113-1	29070-1	29049		H13	DEFENDER
Wrangler 4X4 JK	2017–18	42113-1	29070-1	29049		H13	DEFENDER
Wrangler 4X4 JK	2017–18	42113-1	29070-1	29049		LED	DEFENDER
Wrangler 4X4 JL	2018–__	32113	29070-1	89807	86273 & 69826-2	Halogen	DEFENDER
Wrangler 4X4 JL	2018–__	32113	29070-1	89807	69826-2	LED	DEFENDER
Grand Cherokee 4X4	2005–10	42021	29070-1	29048	28027-2	HB3/HB4	DEFENDER

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FORD (continued)

Vehicle Models	Model Years	Mount	Isolation Module	Plug-In Harness Kit	Harness Adapter	Headlamp Type	Notes
F150/Bronco 4X4			29070-1	29050	–	HB5	
F250, F350, F-DS 4X4			29070-1	29050	–	HB5	
F250/F350 4X4			29070-1	29051	–	2B	
				29050	–	HB1	
F150 4X4			29070-1	29050	–	HB5	
F250 LD 4X4			29070-1	29050	–	HB5	
F250-550 SD 4X4			29070-1	29051	–	2B	
F450, F550 4X2			29070-1	29050	–	HB5	
F650			29070-1	29053	29234	2B1	
F650			29070-1	29053	29234	2B	
				29053	29235	HB5	
F250-550 SD 4X4 (includes Diesel)			29070-1	29051	–	2B	
F450, F550 4X2			29070-1				
Excursion			29070-1	29050	–	HB5	
F150 4X4			29070-1	29049	–	H13	
F150 4X4			29070-1	69889-1	69826-1	HB3H11	
F150 4X4			29070-1	96618	73999	LED	
F250-550 SD 4X4			29070-1	29049	–	H13	
F350, F450, F550 4X2			29070-1	29051	–	2B	
F250-550 SD 4X4			29760-2	29051	–	2B	
			29760-2	29049	–	H13	
F250-550 SD 4X4			23070-1	29051	–	2B	
				29049	–	H13	
				29049	–	H13	

FORD (continued)

Vehicle Models	Model Years	Mount	Isolation Module	Plug-In Harness Kit	Harness Adapter	Headlamp Type	Notes
F250-550 SD 4X4			23760-2	73973-1		Quad H13	
			26760-2	73977	73999	LED	
F250-550 SD 4X4			26070-1	74973	OR	H13 Quad	
			23070-1	73973-1	74093		
			TBD	TBD	TBD	LED	
F650			23070-1	29053	29234	2B	
			23070-1	29053	29235	HB5	
F150			23070-1	29049		H13	
F150			23070-1	29049		H13	
F150			23070-1	69889	69826-1	HB3/HB11	
			23070-1	69889	69859 & 69826-1	LED	
Ranger, Mazda 4X4			23070-1	29050	–	HB5	DEFENDER™
Explorer			23070-1				DEFENDER
Explorer Sport 4X4			23070-1		–		DEFENDER
Explorer Sport Trac 4X4			23070-1		–		DEFENDER
Explorer 4X4			23070-1	29048	28027-2	HB3/HB4	DEFENDER
			23070-1	29050	–	HB5	DEFENDER
F150 (Heritage)/Expedition 4X4			23070-1	29050	–	HB5	DEFENDER
F150 4X4			23070-1	29049	–	H13	DEFENDER
Sport Trac 4X4			23070-1	29049	–	H13	DEFENDER
F150			23070-1	29049		H13	DEFENDER
F150			23070-1	69889-1	69826-1	HB3/HB11	DEFENDER
			23070-1	69889-1	69859 & 69826-1	LED	DEFENDER
Ranger			23070-1	29049		H13	DEFENDER
Ranger			23760-2	77533	69826-1	Halogen	DEFENDER
			29070-1	77533	69826-1	LED	DEFENDER

GM							
Vehicle Models	Model Years	Mount	Isolation Module	Plug-In Harness Kit	Harness Adapter	Headlamp Type	Notes
K2500/3500/Sub.-2500 4X4	1988–00	1589	23070-1	23048	–	HB3/HB4	
			23070-1	29051	–	2B	
K1500, 2500, 3500 4X4	1973–87	1519	23070-1	29051	–	2B	
		63300 Kit				LF/UF	
Blazer, Suburban 4X4	1973–91		23070-1	23050	26641-1	1A/2A	
K1500/Sub/Blazer 4X4	1988–00	1589	23070-1	29048	–	HB3/HB4	
		67665 Kit	23070-1	29051	–	2B	
						LF/UF	
C3500 2WD	1991–01	7144	23070-1	29048	–	HB3/HB4	
			23070-1	29051	–	2B	
K1500 4X4	1999–02	3519	23070-1	29048	–	HB3/HB4	
Tahoe, Yukon, Suburban	1999–06		23070-1	29051	–	2B	
K1500/K1500 "Classic" 4X4	2003–07	3519	23070-1	29048	–	HB3/HB4	
K1500HD	2001–07	3529	23070-1	29048		HB3/HB4	
Suburban/Yukon XL	2003–06	3529	23070-1	29048		HB3/HB5	
2500HD/3500	2003–06	67381-2	23070-1	29048	–	HB3/HB4	
2500HD/3500	2007–10	67381-2	23070-1	29400-7		HB3/HB11	
Suburban/Yukon XL	2007–10	67381-2	23070-1	29400-7		HB3/HB11	
C4500/5500 4X2	2003–09	3539	23070-1	29053	–	2B/1A/2A	
Canyon/Colorado 4X4 Z71	2004–09	31543-1	23070-1	29048	–	HB3/HB4	DEFENDER™
Canyon/Colorado 4X4 Z65	2004–12	31543-1	23070-1	29048	–	HB3/HB4	DEFENDER
C4500/5500 4X4	2005–09	33559	23070-1	29053	–	2B/1A/2A	
K1500	2007–__	31599	23070-1	29400-7	–	HB3/HB11	
K1500	2014–15	31599	23760-2	69818-1	–	HB3/HB11 or HIR2	
K1500 Classic	2016–19	31599-1	23070-1	72101-1		HID or LED	
K1500 Plow Prep	2019–__	31699	23070-1	77199		Halogen & LED	

GM (continued)

Vehicle Models	Model Years	Mount	Isolation Module	Plug-In Harness Kit	Harness Adapter	Headlamp Type	Notes
2500HD/3500	2011-19	69981	23070-1	29400-7	-	HB3/HB11	
2500HD/3500	2015-19	69981	23760-2	69818-1	-	HB3/HB11	
2500HD/3500	2015-19	69981	23070-1	69818-1		HID	
2500HD/3500	2020-__	31700	23070-1	72199		Halogen & LED	
S10/Blazer 4X4	1995-04	1503	23070-1	29048	-	HB3/HB4	Suburbanite™
GMC Sonoma			23070-1	29051	27968-1	2E	Suburbanite
K1500/K1500 "Classic" 4X4	1999-07	1533	23070-1	29048	-	HB3/HB4	DEFENDER
Tahoe/Yukon 4X4	2000-06	1533	23070-1	29048	-	HB3/HB4	DEFENDER
Envoy/Trailblazer 4X4	2002-09	1533-1	23070-1	29052	-	HB3/HB4	DEFENDER
Canyon/Colorado 4X4	2004-12	31543-2	23070-1	29048	-	HB3/HB4	DEFENDER
Canyon/Colorado 4X4	2015-__	31563	23760-2	69818-1	76048	HB3/HB11	DEFENDER
K1500 4X4	2007-13	31553-1	23070-1	29400-5	-	HB3/HB11	DEFENDER
K1500 4X4	2014-15	31553-1	23760-2	69818-1	-	HB3/HB11 or HIR2	DEFENDER
K1500 4X4	2016-19	31553-1	23070-1	72101-1		HID or LED	DEFENDER
Tahoe, Yukon, XL, Suburban	2007-14	31553-1	23070-1	29400-7	-	HB3/HB11	DEFENDER
Tahoe, Yukon, XL, Suburban	2007-15	31553-1	23070-1	29049		H13	DEFENDER
Tahoe, Yukon, XL, Suburban	2015-19	31553-1	23070-1	69818-1 & 69928	-	HB3/HB11 or H13	DEFENDER

ISUZU

Vehicle Models	Model Years	Mount	Isolation Module	Plug-In Harness Kit	Harness Adapter	Headlamp Type	Notes
Isuzu NPR	2008-__	33212	29070-1	29051	-	2B/2D/HB-2	

STERLING

Vehicle Models	Model Years	Mount	Isolation Module	Plug-In Harness Kit	Harness Adapter	Headlamp Type	Notes
Bullet 45/55 4X4, 4X2	2008-12	33940	29070-1	29049	-	H13	

This guide is intended FOR REFERENCE ONLY. Please consult Quick Match for final determination of exact and current mount, harness , and any needed adapters.



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