2023 Technical Service Manual
Snow Plows & Spreaders

meyer
a brand of aebi schmidt

Additional Support Information

Meyer is here to help! Please access the below resources for additional support.

Meyer Website
Access the Meyer website for 24/7 support

Support Documents
Parts Information, Technical Documents & Owner's Manuals

EZ Troubleshooter
Interactive tool helps diagnose snow plow problems quickly

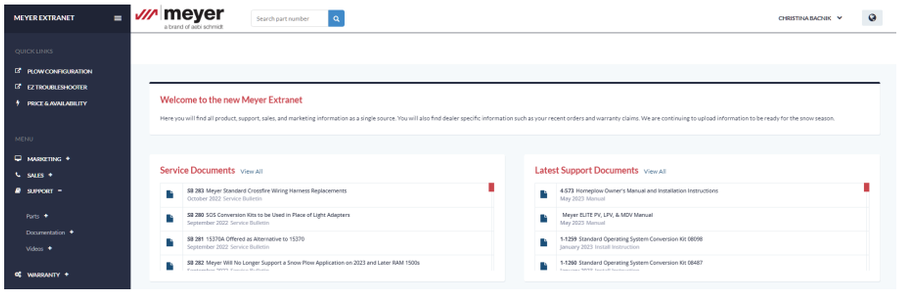
Meyer Dealer & Distributor Portal
The Meyer extranet includes support materials for dealers and distributors. Log-in to find information on sales, support, warranty and more.

Go to www.meyerproducts.com and click on the Distributor Sign-In link.

Enter your user name and password to access the portal.

Use the left navigation for:

- Troubleshooting help
- Search & order parts
- Access service documentation and manuals
- How-to videos



Customer Service And Technical Support

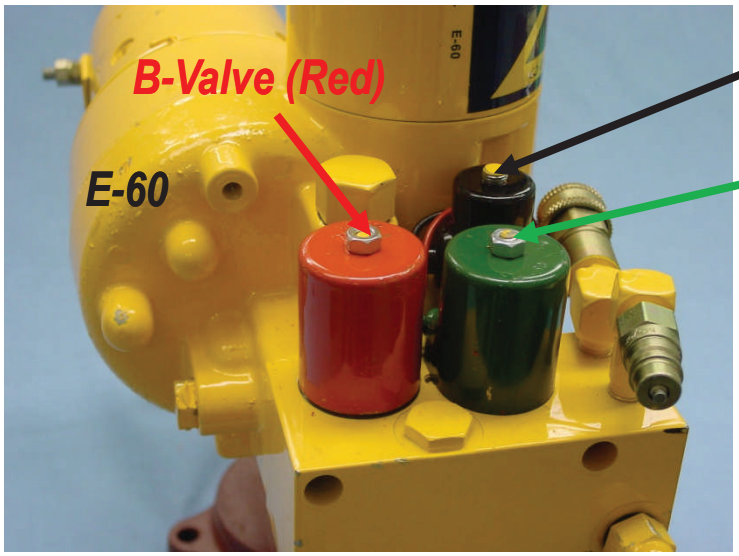
If the above online resources don't provide the assistance you need, please contact our Customer Service or Technical Support representatives.

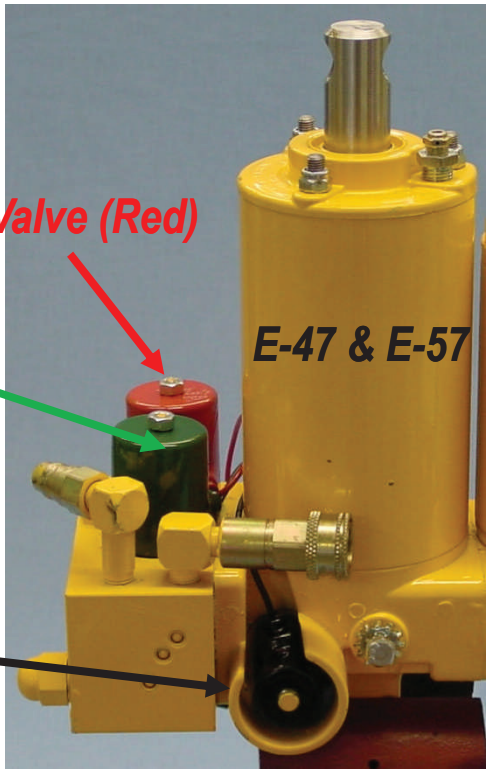
Customer Service: (216) 486-1313, ext. 7051 or MeyerSales@aebi-schmidt.com
Technical Support: (216) 486-1313, ext. 7052 or MeyerTechnicalSupport@aebi-schmidt.com

Table of Contents

Operation Chart | E-47, E-57, E-60

E-57	RAISE	LOWER	ANGLE RIGHT	ANGLE LEFT	E-60
MOTOR	X		X	X	MOTOR
A		X			A
B	X				B
C			X		C

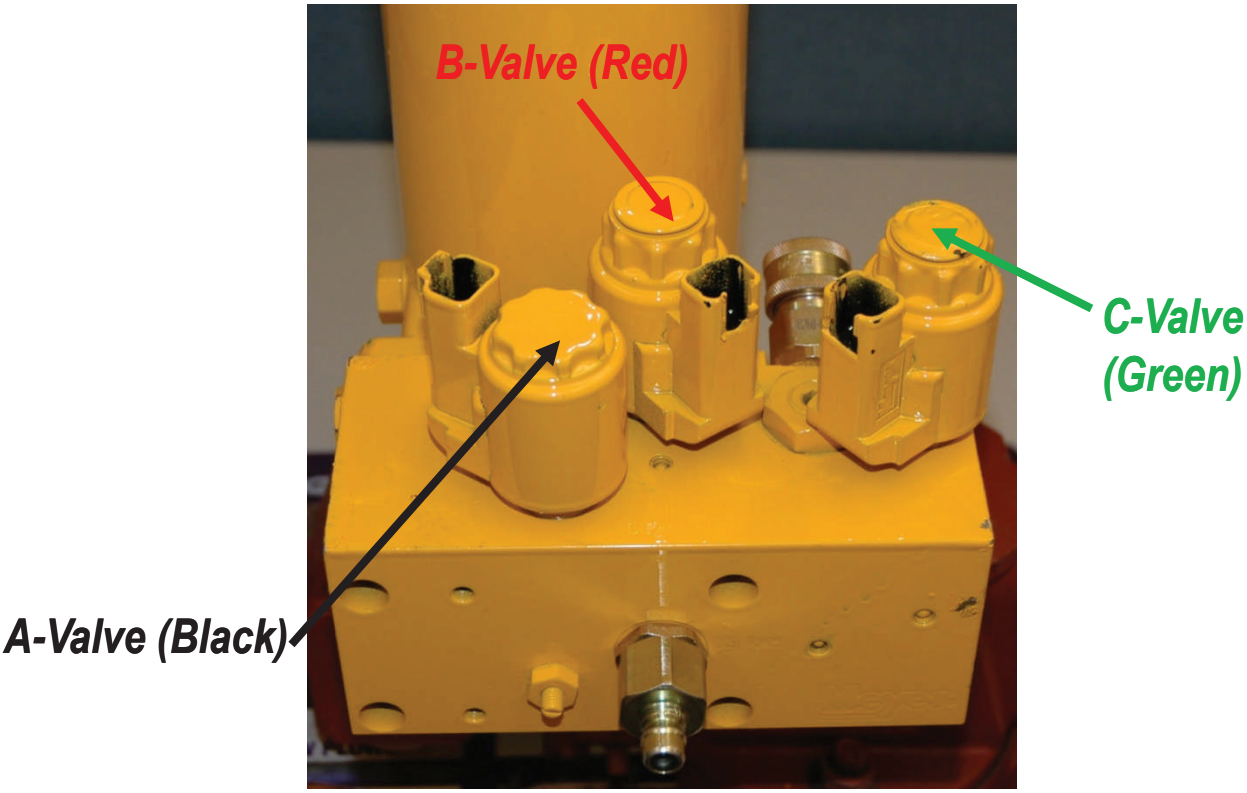




Operation Chart | E-58, E-61

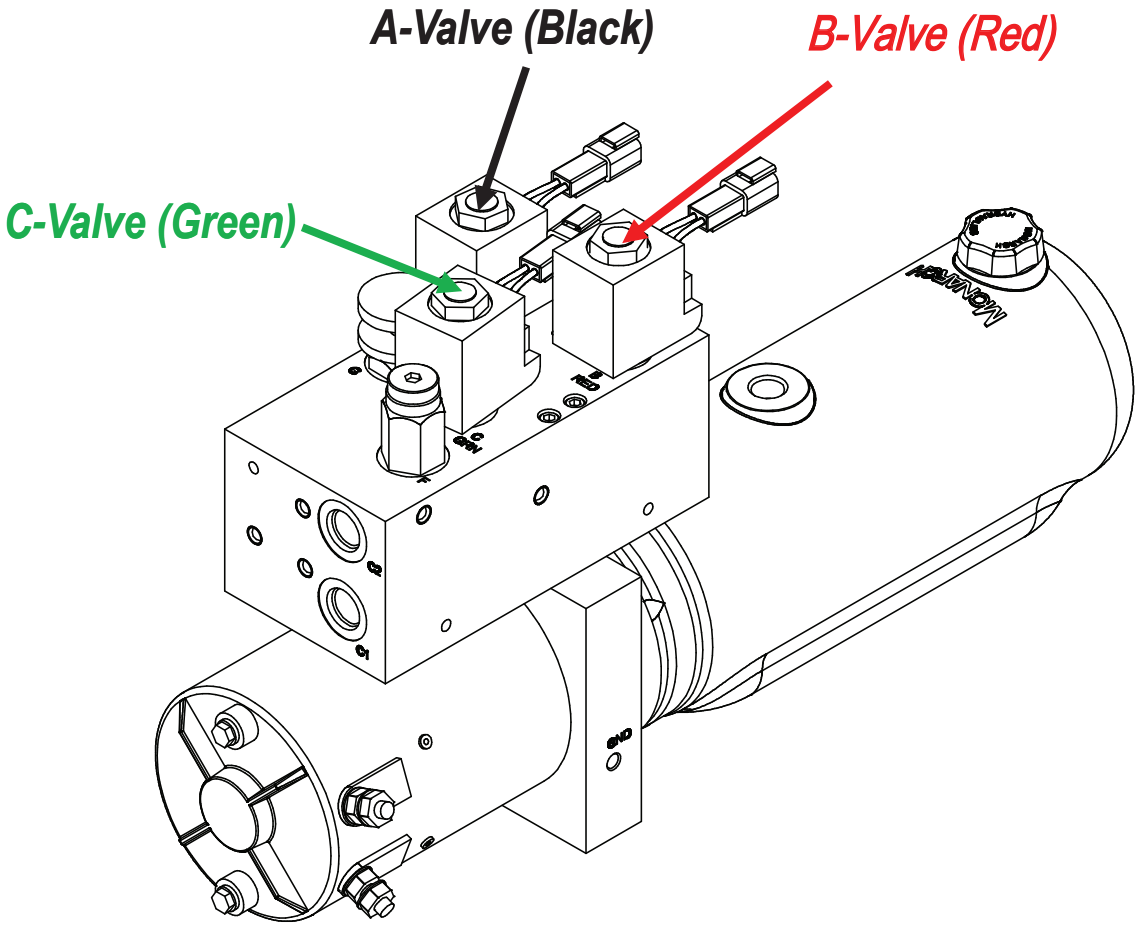
E-58	RAISE	LOWER	ANGLE RIGHT	ANGLE LEFT	E-61
MOTOR	X		X	X	MOTOR
A		X			A
B	X				B
C			X		C

Use this chart when a E-47, E-57 or E-60 is using this P.A. Block



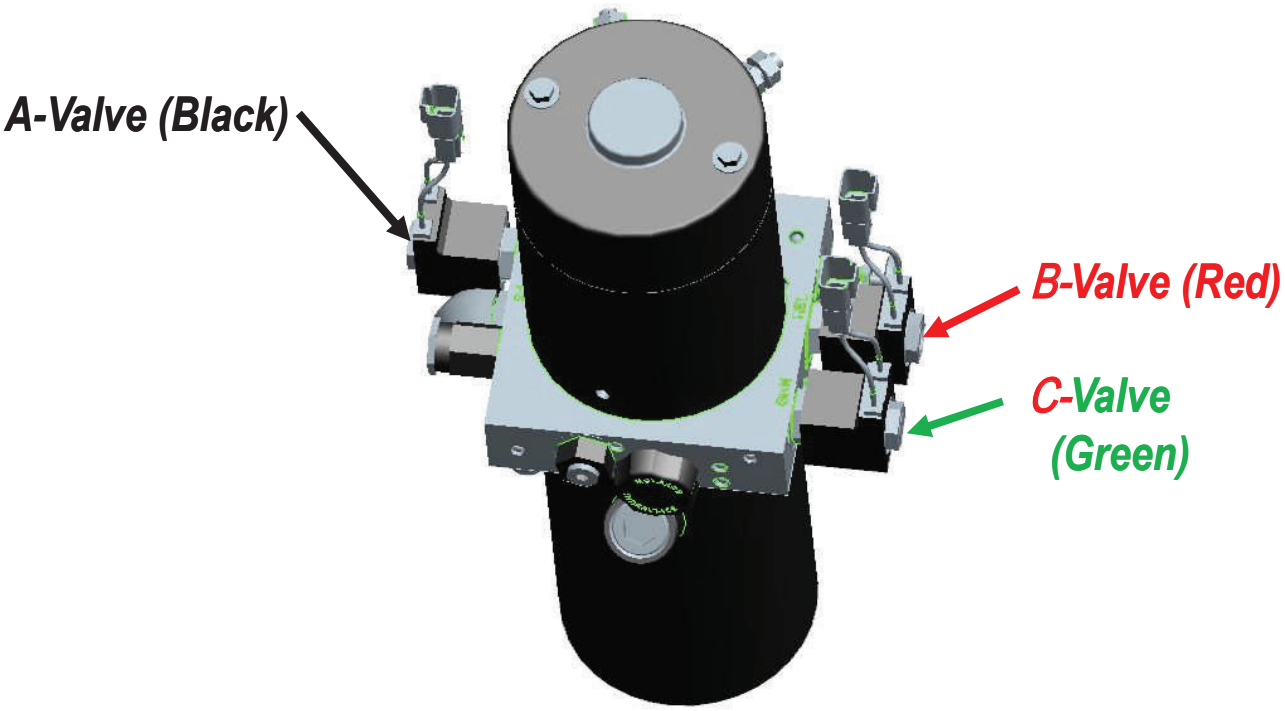
Operation Chart | E-70

E-70	RAISE	LOWER	ANGLE RIGHT	ANGLE LEFT	E-70
MOTOR	X		X	X	MOTOR
A		X			A
B	X				B
C			X		C



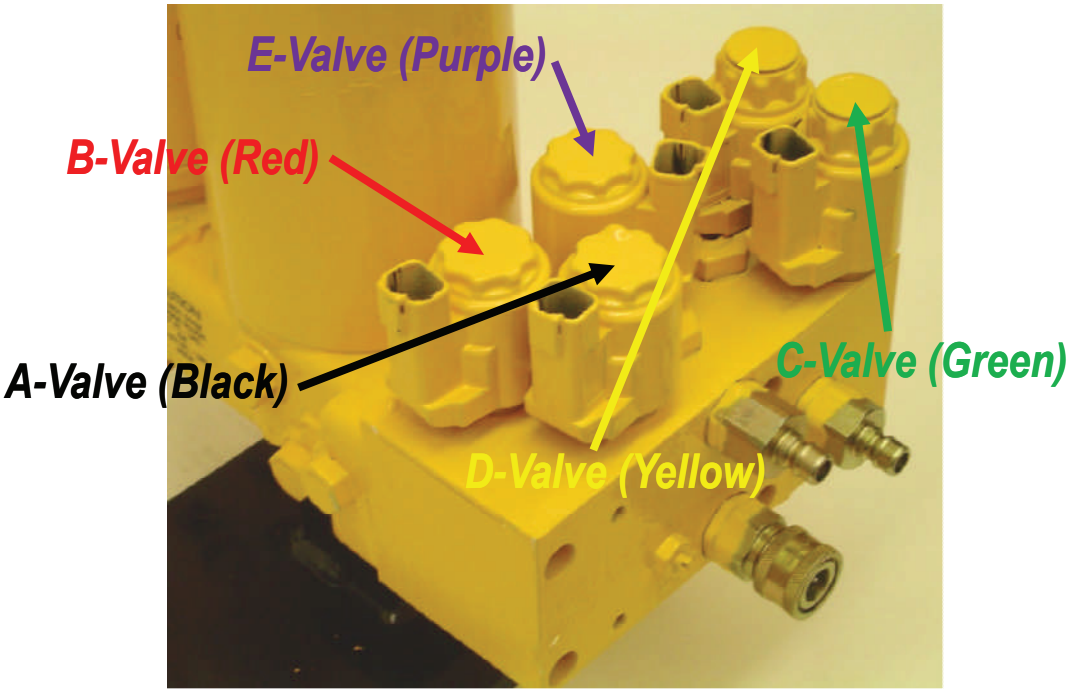
Operation Chart | E-72

E-72	RAISE	LOWER	ANGLE RIGHT	ANGLE LEFT	E-72
MOTOR	X		X	X	MOTOR
A		X			A
B	X				B
C			X		C



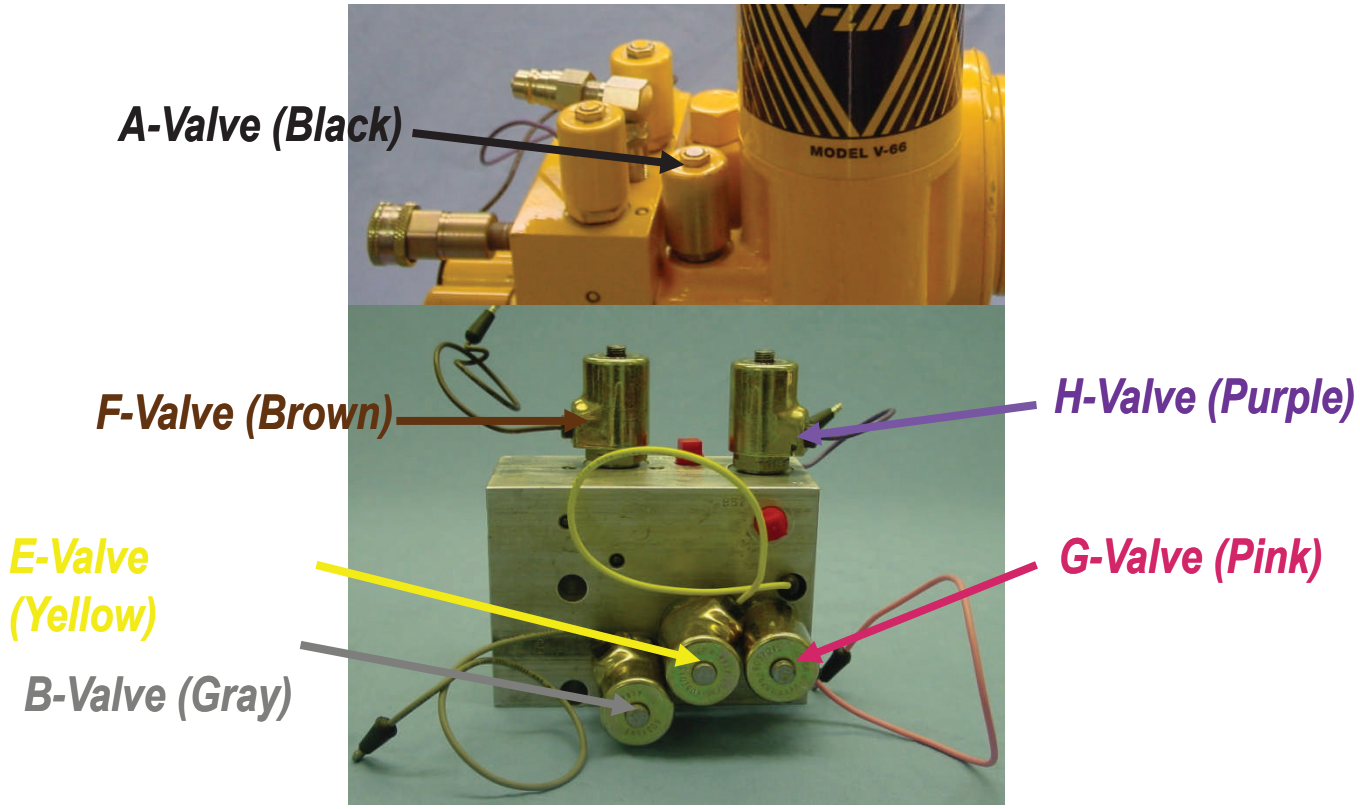
Operation Chart | E-68, E-88

E-68	RAISE	LOWER	ANGLE RIGHT	ANGLE LEFT	Mount	Dis-Mount	E-88
MOTOR	X		X	X	X	X	MOTOR
A		X					A
B	X						B
C			X				C
D				X			D
E						X	E



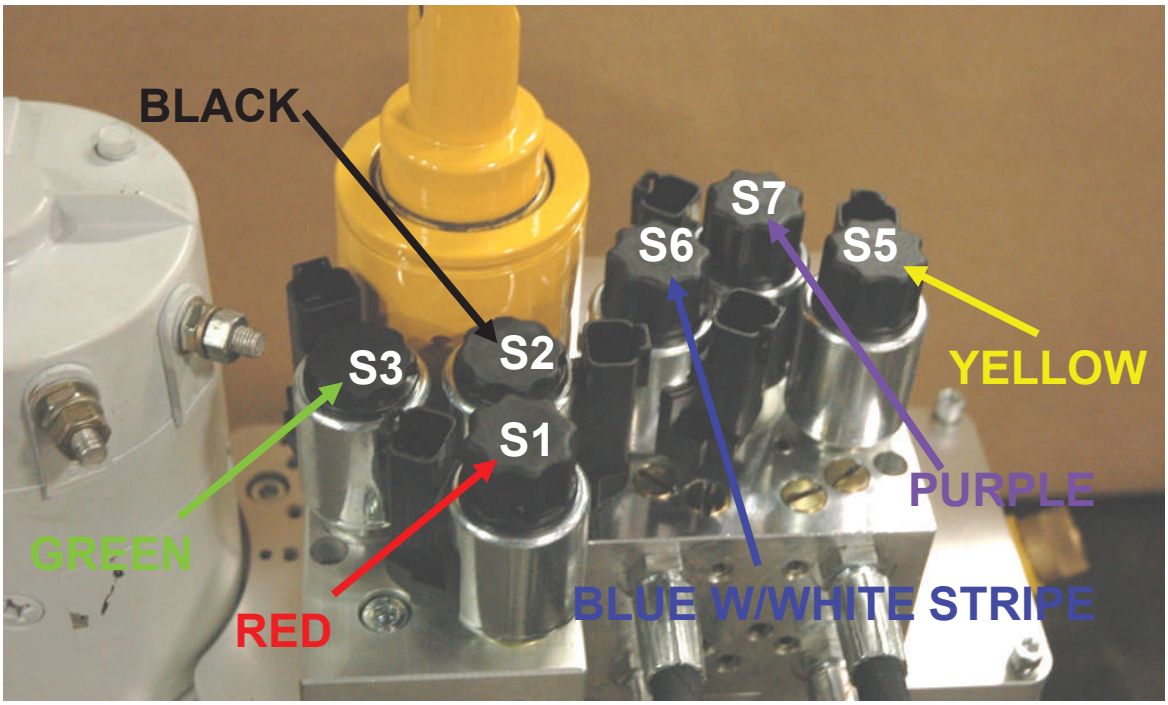
Operation Chart | V-66

V-66	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	V-66
MOTOR	X			X		X	MOTOR
A		X					A
D	X						D
E						X	E
F					X		F
G				X			G
H			X				H



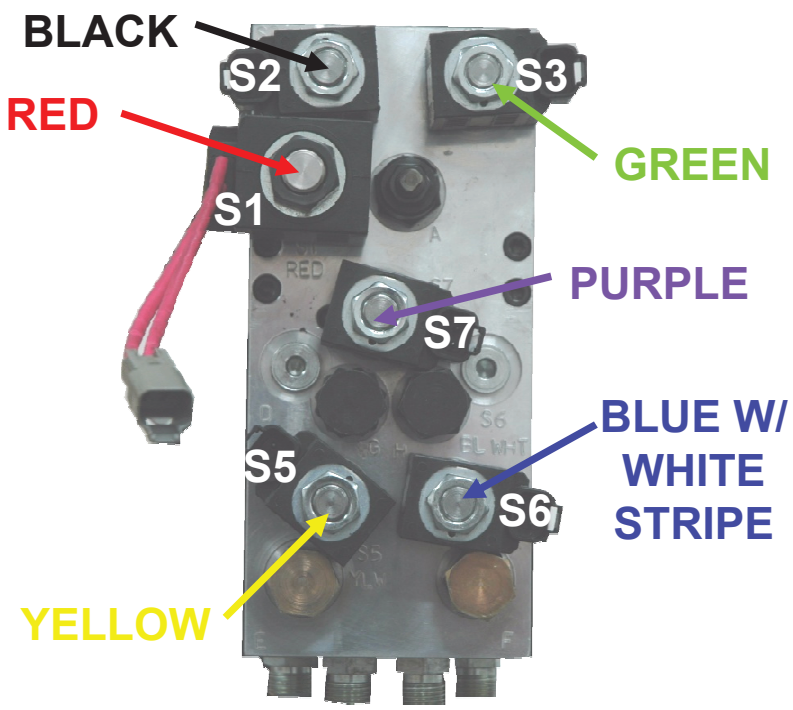
Operation Chart | V-68

V-68	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP	V-68
MOTOR	X		X	X	X	X	X	X	X	X	MOTOR
S1	X	X									S1
S2	X	X							X	X	S2
S3		X	X	X			X		X	X	S3
S5						X				X	S5
S6				X						X	S6
S7			X		X				X	X	S7



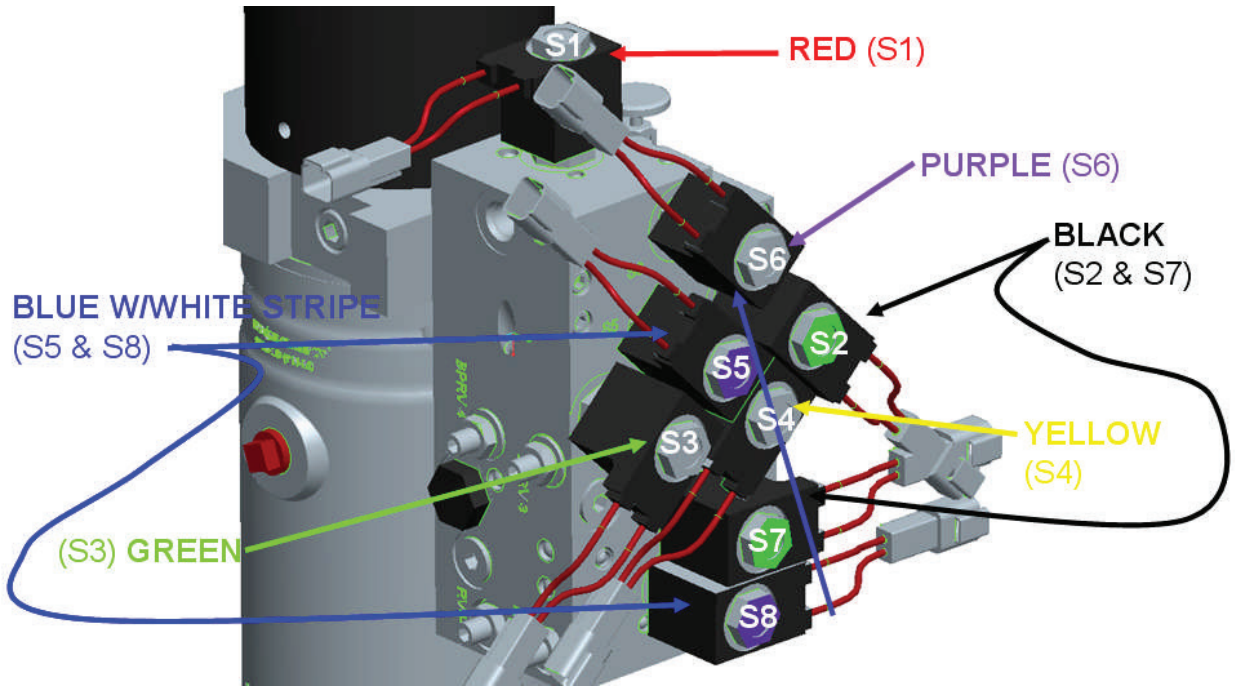
Operation Chart | V-70

V-70	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP	V-70
MOTOR	X		X	X	X	X	X	X	X	X	MOTOR
S1	X	X									S1
S2	X	X							X	X	S2
S3		X	X	X			X		X	X	S3
S5						X				X	S5
S6				X						X	S6
S7			X		X				X	X	S7

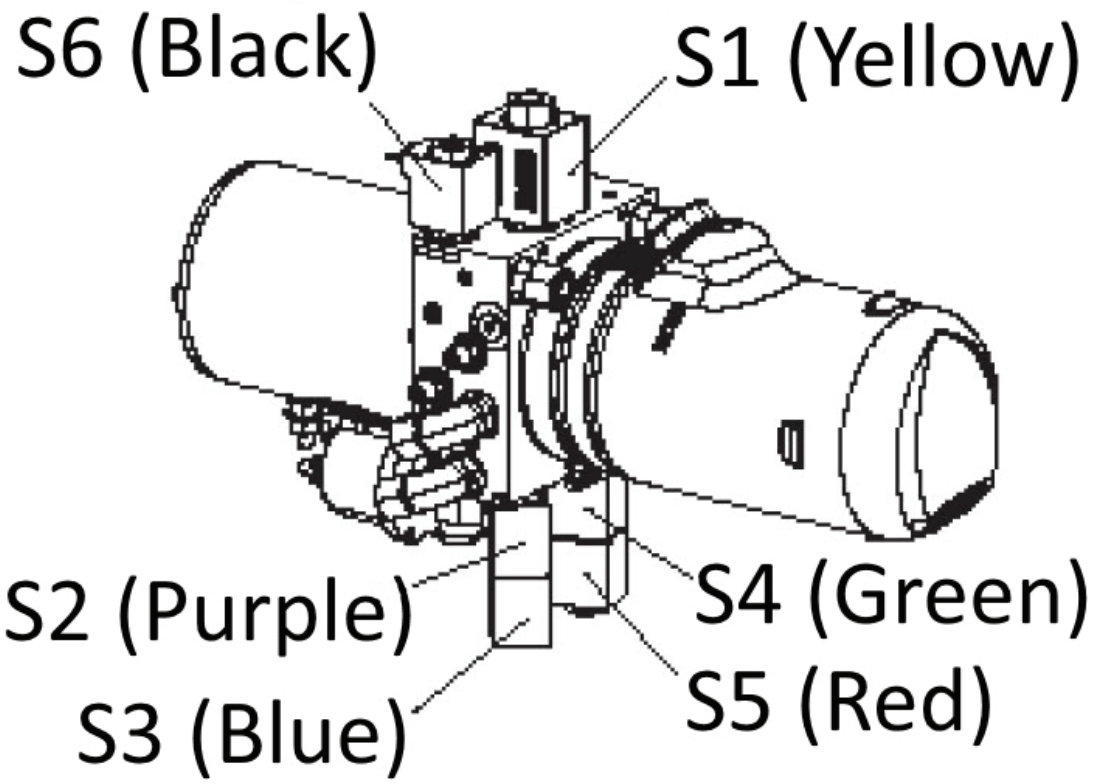


Operation Chart | V-71

V-71	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP	V-71
MOTOR	X		X	X	X	X	X	X	X	X	MOTOR
S1		X									S1
S2						X	X			X	S2
S3					X			X	X		S3
S4			X				X		X		S4
S5				X				X		X	S5
S6	X										S6
S7						X	X			X	S7
S8				X				X		X	S8

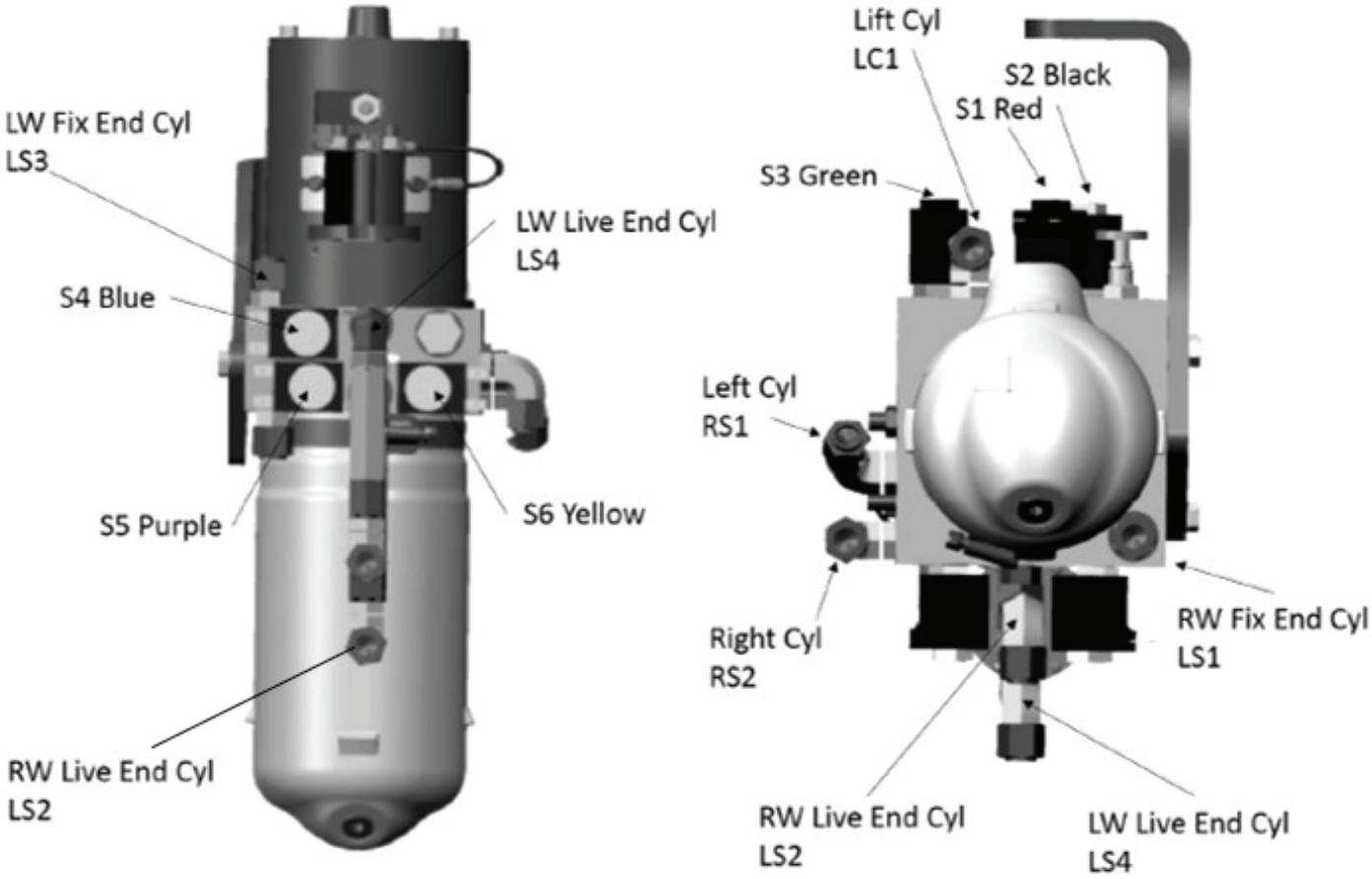


V73 Hydraulic Unit



V73	Raise	Lower	Left	Left Extend	Left Retract	Right	Right Extend	Right Retract	Vee	Scoop
Motor	X		X	X	X	X	X	X	X	X
S1		X								
S2				X		X				X
S3			X		X				X	X
S4						X		X	X	
S5			X				X			
S6	X									

SB73 Hydraulic Unit

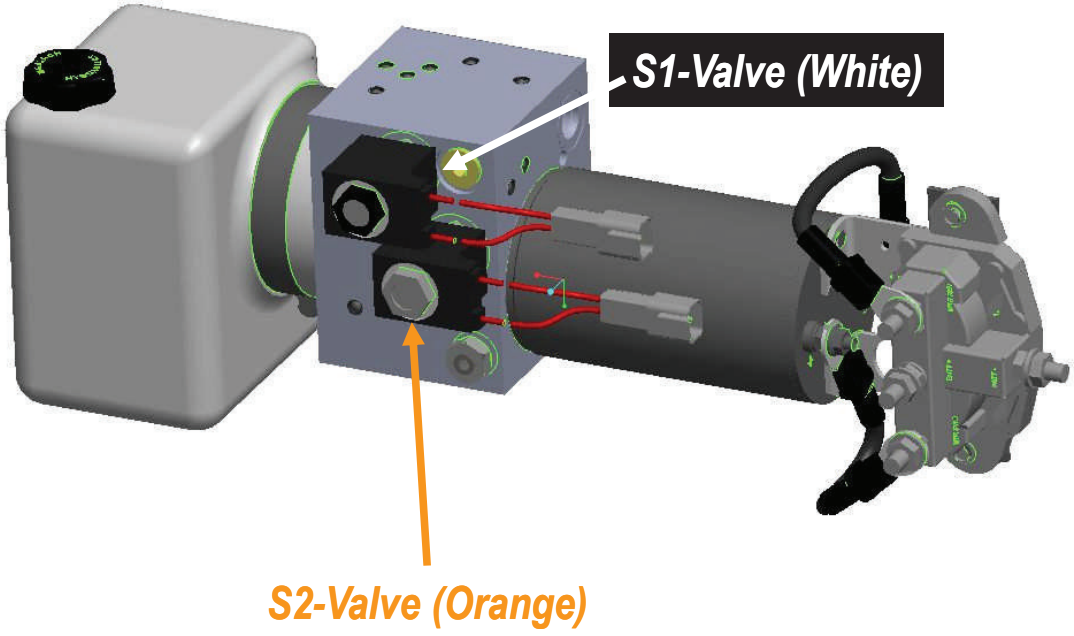


SB73	Raise	Lower	Left	Left Extend	Left Retract	Right	Right Extend	Right Retract	Both Extend	Both Retract
Motor	X		X	X	X	X	X	X	X	X
S1					X	X		X		X
S2		X								
S3	X									
S4				X	X				X	X
S5							X	X	X	X
S6			X			X				

Operation Chart | Power Angle

PA	RAISE	LOWER	ANGLE RIGHT	ANGLE LEFT	PA
MOTOR*	X (T1)		X (T1)	X (T2)	MOTOR*
S1		X			S1
S2			X	X	S2

**** Motor solenoid reverses polarity to the motor to change rotation***



PARTS BREAKDOWN
E-46, E-47 & E-47H
E-57 & E-57H
ELECTRO-LIFT®

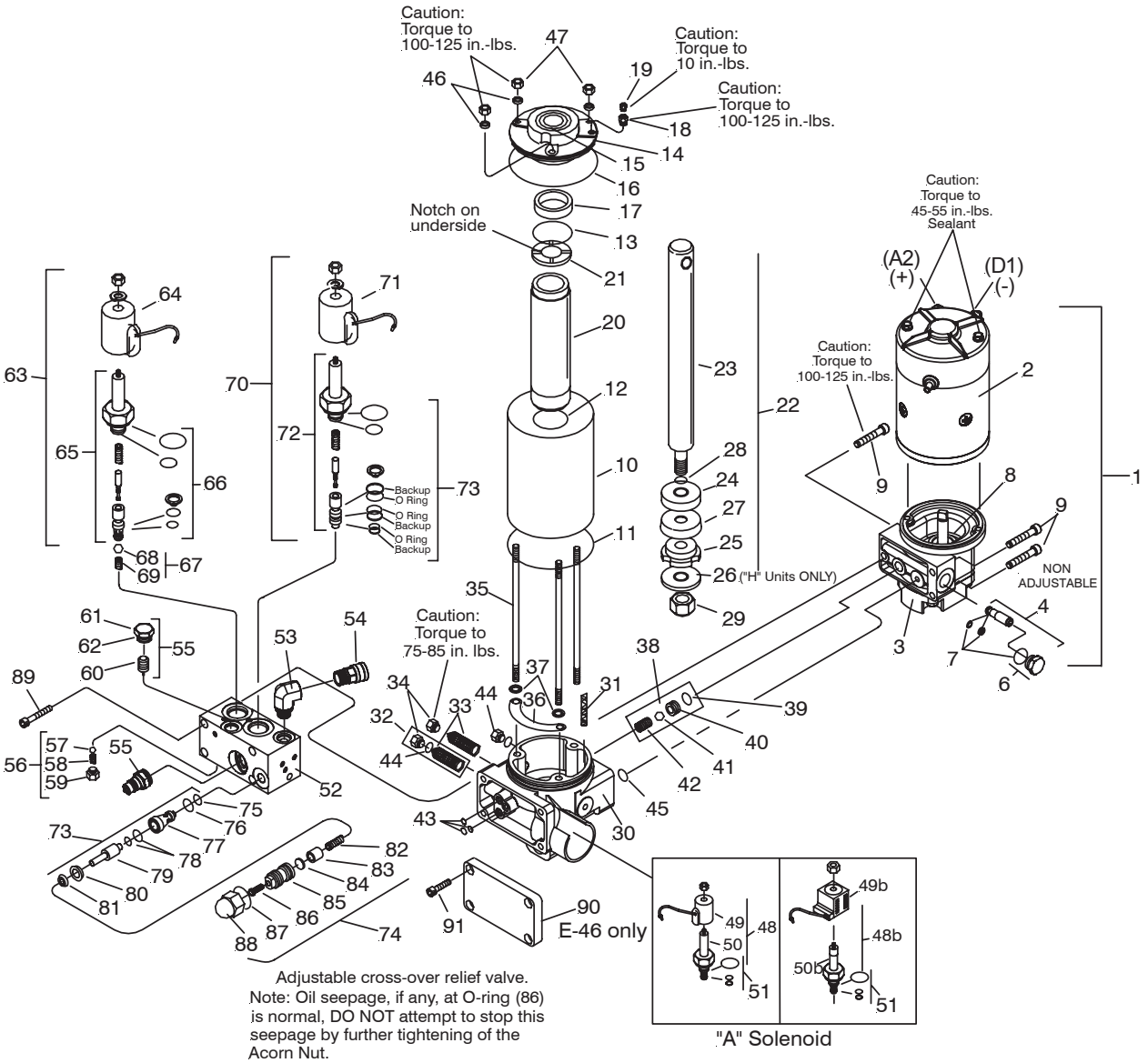
ITEM	STANDARD-UP THROUGH C-9 1-1/8" x 6" Stroke E-57	LONG STROKE-HM-9 & HM-10 ONLY 1-1/8" x 8" Stroke E-57H	QTY.	DESCRIPTION
	15865	**15866**	**1**	**Lift Ass'y. (Unit only) 12 volt**
	15881	**15885**	**1**	**Lift Ass'y. (Unit only) 24 volt**
1	15869	15869	1	**Pump & Motor Assy. (12 volt)**
1b	15890	15890	1	**Pump & Motor Assy. (24 volt)**
2a	15727	15727	1	• Motor - 12 Volt (2 Terminal)
2b	15891	15891	1	• Motor - 24 Volt (2 Terminal)
3	15889	15889	1	• Pump Assy.
4	15874	15874	1	• •Kit - Pump Relief Valve
5	15870	15870	1	• • Relief Valve Assy.
6	15878	15878	1	• • Plug w/O-Ring
7*	15875	15875	1	Seal Kit Relief Valve
8	15877	15877	1	Pump Shaft Seal
9	22339	22339	3	Soc. Head 5/16-18 x 1-3/4"
10	15045	15204	1	Cylinder Tank
11*	15131	15131	1	O-Ring 3-1/2 I.D.
12*	15163	15163	1	O-Ring 1-15/16 I.D.
13*	15198	15198	1	O-Ring 1-1/8 I.D.
14	15194	15194	1	**Cover & Seal Assy.**
15*	05119	05119	1	• Wiper
16*	15131	15131	1	• O-Ring 3-1/2 I.D.
17	15199	15199	1	• Sleeve
	08473	08473	1	**Pressure Relief Valve Kit**
18	21805	21805	1	• Reducer Bushing 1/4 x 1/8
19	21806	21806	1	• Pressure Relief Valve
20	15207	15205	1	Cylinder
21	15209	15209	1	Washer (Grooves Down)
22	15335	15761	1	**Ram Assembly**
23	15208	15206	1	• Ram
24	15158	15158	1	• Piston
25	15219	15219	1	• Piston Follower
26	15760	15760	1	• Spacer
27*	15162	15162	1	• Packing Cup
28*	15125	15125	1	• O-Ring 7/16 I.D.
29	20316	20316	1	• Locknut 1/2-13
30	15573	15573	1	**Base & Strainer Assy.**
31	15326	15326	1	• Strainer
32	15641	15641	2	• **Filter Kit - 9/16"**
33	15619	15619	1	• • Filter
34	21999	21999	1	• • Plug w/O-Ring - 9/16"
35	15042	15203	3	Stud
36	15621	15621	1	Baffle
37	21980	21980	2	Retainer Ring
38	15574	15574	1	**Pump Check Valve Kit**
39*	15124	15124	1	• O-Ring 3/8 I.D.
40			1	• Seat
41			1	• Ball, 9/32
42			1	• Spring

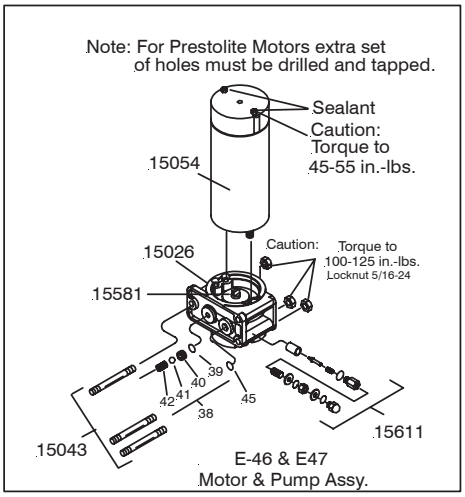
ITEM	STANDARD-UP THROUGH C-9 1-1/8" x 6" Stroke E-57	LONG STROKE-HM-9 & HM-10 ONLY 1-1/8" x 8" Stroke E-57H	QTY.	DESCRIPTION
43*	15122	15122	3	O-Ring 1/4 I.D.
44	21999	21999	1	**Drain Plug w/O-Ring - 9/16"**
45*	15127	15127	1	O-Ring 5/8 I.D.
46*	21929	21929	3	Washer, Nyltite 5/16
47	20697	20697	3	Locknut 5/16 - 24
48	15972	15972	1	**"A" Solenoid Assembly**
49	15905	15905	1	• • "A" Coil, Black Wire (12V)
50	15660	15660	1	• • "A" Cartridge Valve
51*	15431	15431	1	• • • Seal Kit, "A" Valve
48b	15661	15661	1	**"A" Solenoid Assembly**
49b	15659	15659	1	• • "A" Coil, Black Wire Plastic
	15662	15662	1	• • "A" Coil, Black Wire (24V)
50a	15660	15660	1	• • "A" Cartridge Valve
51b*	15431	15431	1	• • • Seal Kit, "A" Valve
52	15758	15758	1	• **Valve Assy. w/Coup. (12V)**
	15779	15779	1	• **Valve Assy. w/Coup. (24V)**
53	22295	22295	1	• Forged 90 Degree Elbow
54	22294	22294	1	• Coupler, Female Half
55	22293	22293	1	• Coupler, Male Half
56	15639	15639	1	• **Kit-Pilot Check Valve**
57			1	• • Ball, Steel
58			1	• • Spring
59			1	• • Plug
60	15609	15609	1	• Piston
61	15359	15359	1	• **Plug Valve Block**
62*	15126	15126	1	• • O-ring 9/16 I.D.
63	15697	15697	1	• **"B" Solenoid Assembly**
64	15382	15382	1	• • "B" Coil, Red Wire
	15444	15444	1	• • "B" Coil, Red Wire (24V)
65	15698	15698	1	• • "B" Cartridge Valve
66*	15432	15432	1	• • Seal Kit-"B" Cartridge
67	15576	15576	1	• **Kit- "B" Check Valve**
68			1	• • Ball, 7/16
69			1	• • Spring
70	15358	15358	1	• **"C" Solenoid Assembly**
71	15430	15430	1	• • "C" Coil, Green Wire
	15445	15445	1	• • "C" Coil, Green Wire (24V)
72	15381	15381	1	• • "C"-Cartridge Valve
73*	15433	15433	1	• • Seal Kit-"C" Cartridge
74	15606	15606	1	• **Kit-Crossover Valve**
*	15610	15610	1	• • Seal Kit-Crossover Valve (includes items A,B,D,M)
75	21826	21826	4	Soc. Head 5/16-18 x 1-1/2"

Parts indented are included in assembly under which they are indented.

*** Parts included in Master Seal Kit Part No. 15888**
Basic Seal Kit Part No. 15254
Pump Relief Valve @ 2000 P.S.I. full flow. **Non Adjustable**
Set Crossover Relief Valve @ 3800 ± 400 P.S.I. @ 2-1/2 G.P.M.

ELECTRO LIFT®
Exploded View





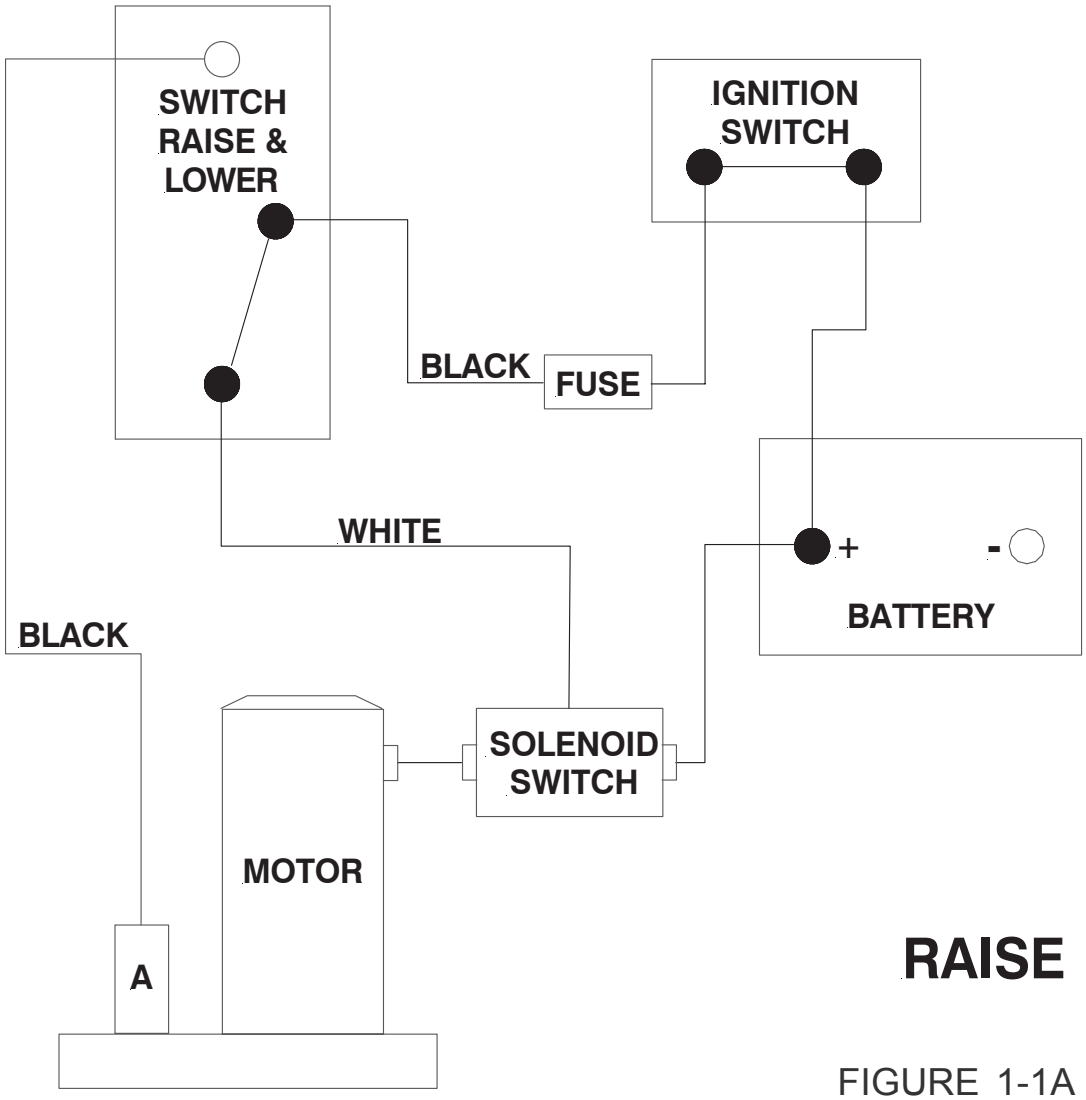

SWITCH
RAISE &
LOWER
IGNITION
SWITCH
BLACK
FUSE
WHITE
+
-
BATTERY
BLACK
SOLENOID
SWITCH
MOTOR
A
RAISE

FIGURE 1-1A

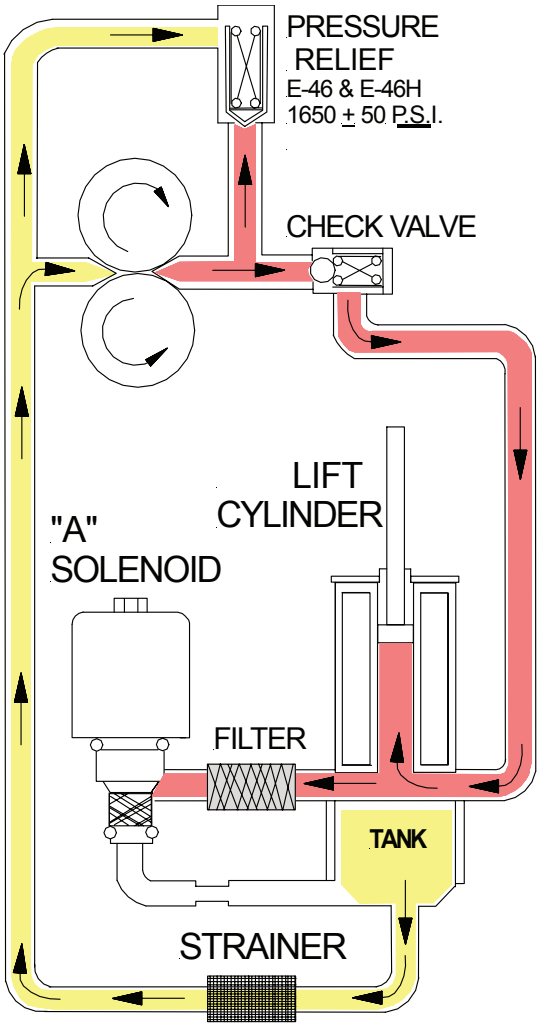
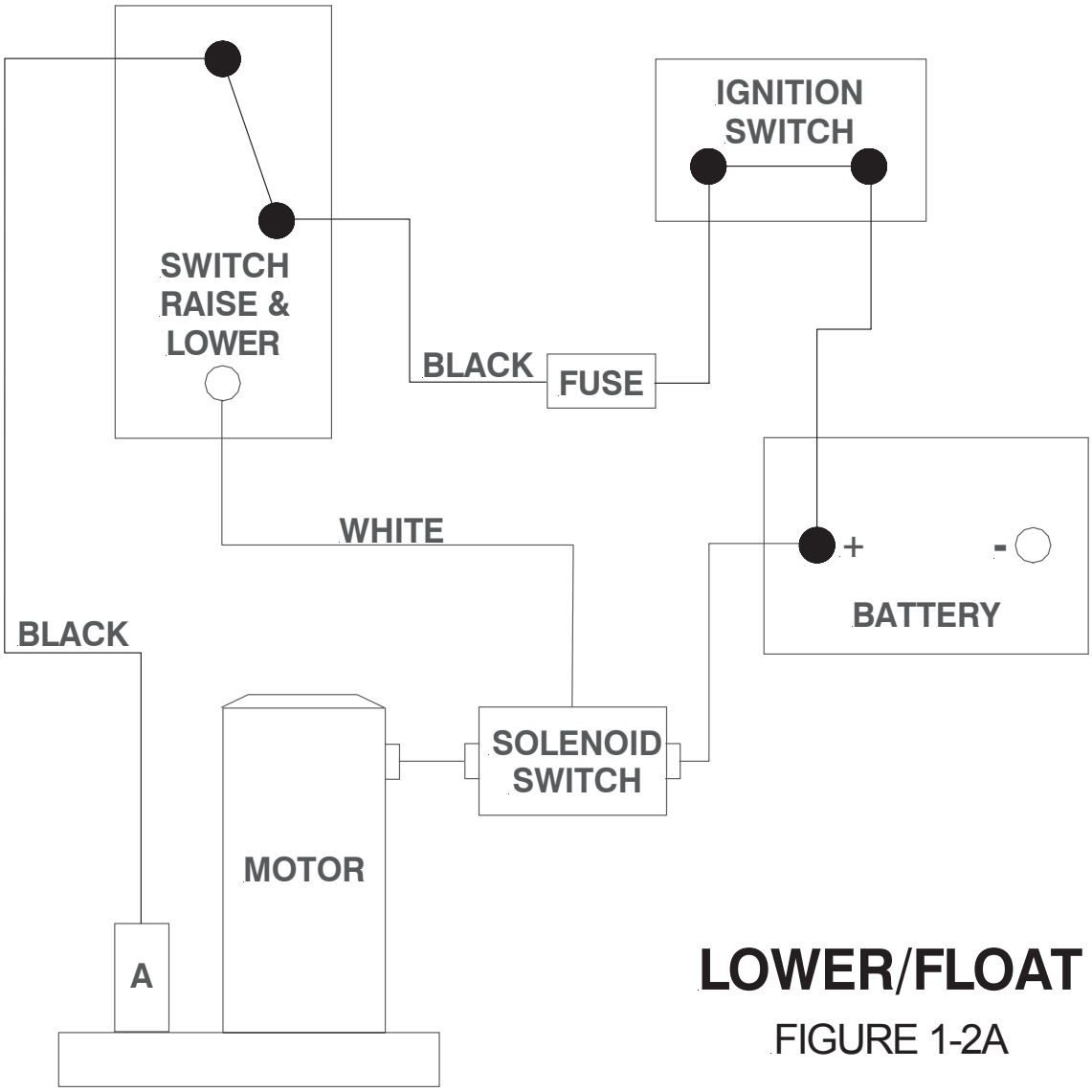


FIGURE 1-1B

- OPERATING
- RETURN
- INTAKE or DRAIN

HYDRAULIC FLOW CHART
MODELS E-46 & E-46H
RAISE



LOWER/FLOAT

FIGURE 1-2A

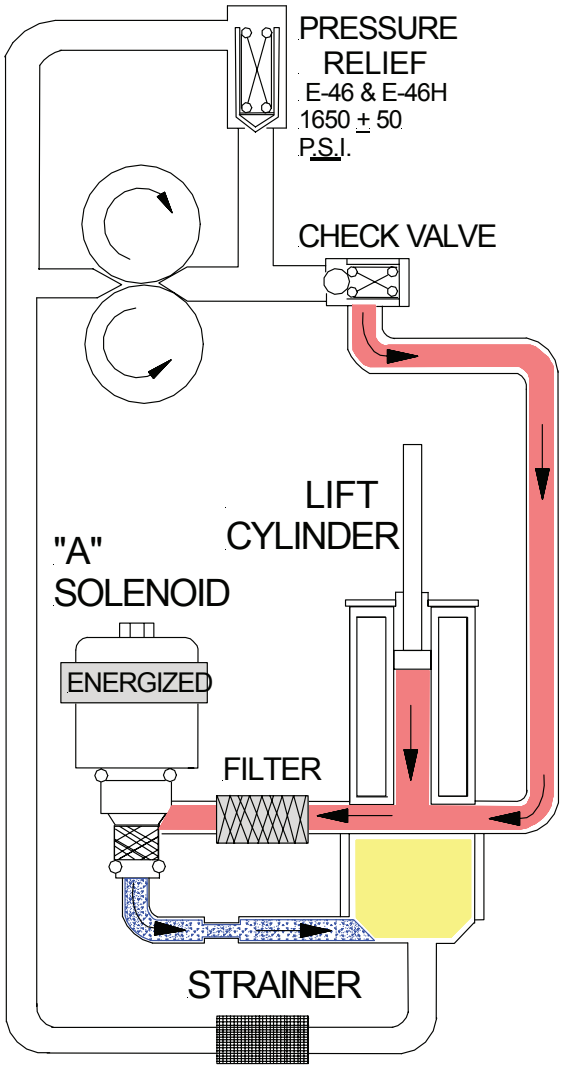
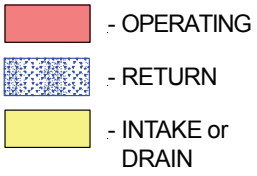


FIGURE 1-2B

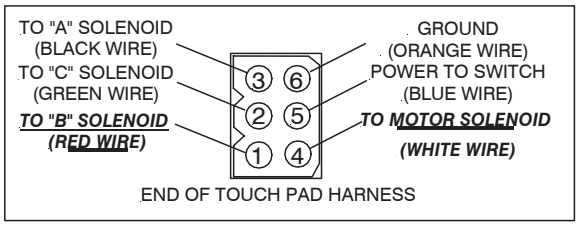


HYDRAULIC FLOW CHART

MODELS E-46 &
E-46H

LOWER/FLOAT

ELECTRO -TOUCH CONTROLLER



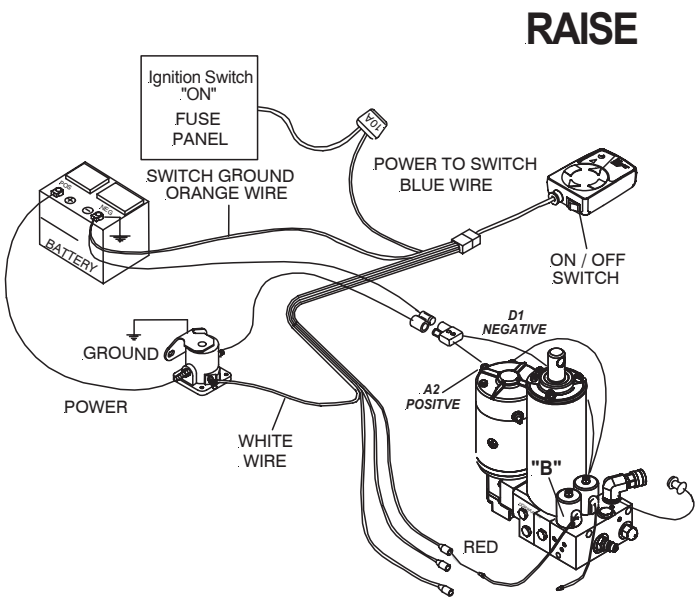


FIGURE 1-3A

SLIK - STIK SINGLE LEVER CONTROLLER

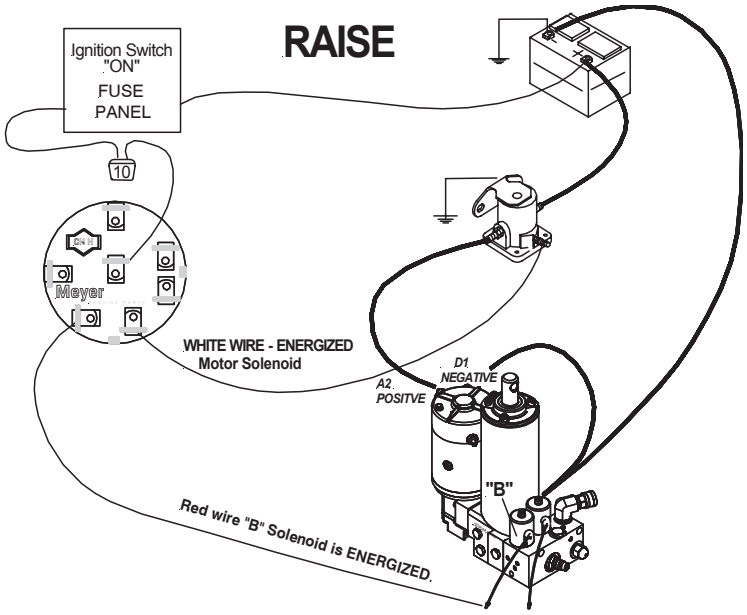


FIGURE 1-3A

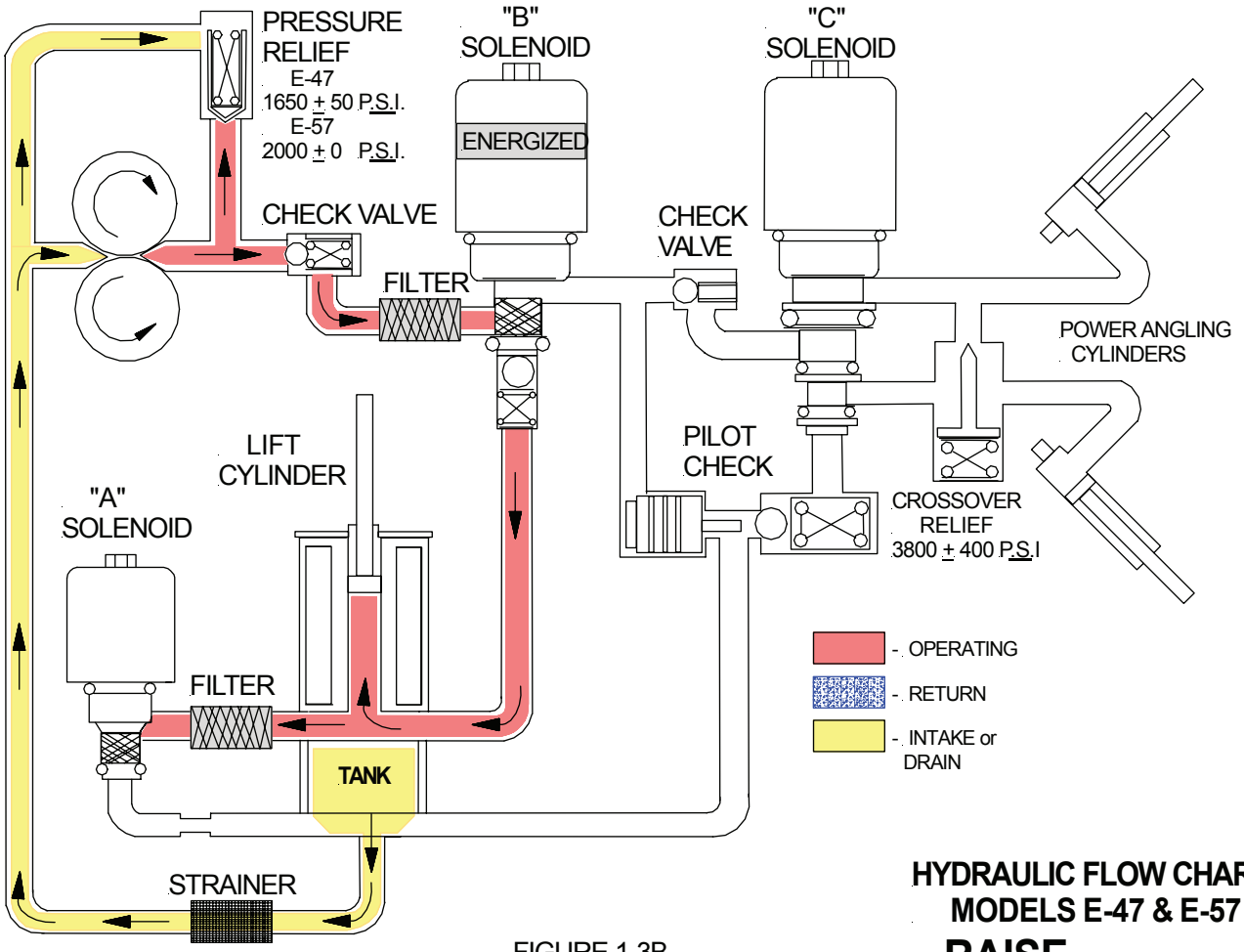
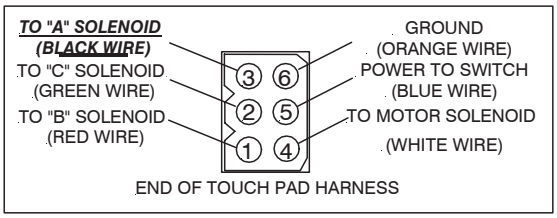


FIGURE 1-3B

HYDRAULIC FLOW CHART
MODELS E-47 & E-57
RAISE

ELECTRO -TOUCH CONTROLLER



LOWER/FLOAT

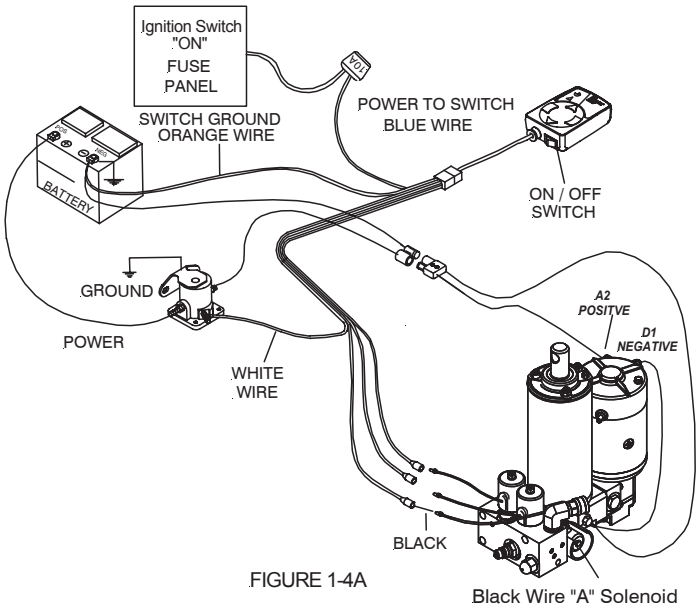


FIGURE 1-4A

SLIK - STIK SINGLE LEVER CONTROLLER

LOWER/FLOAT

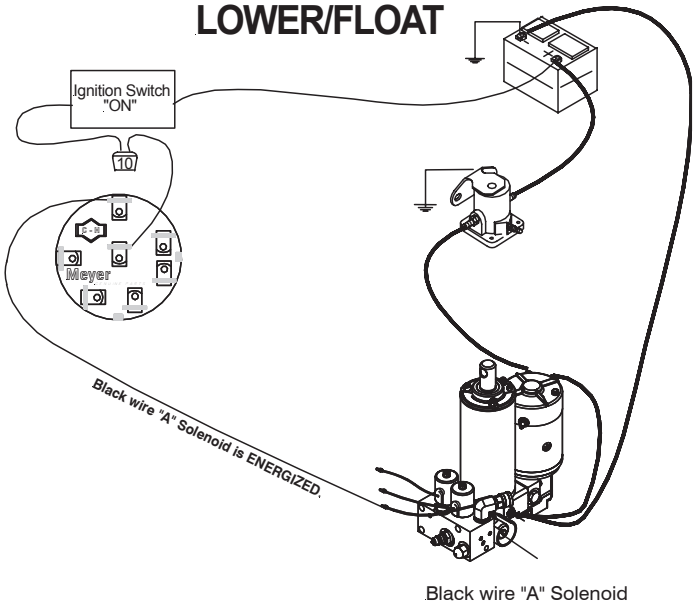


FIGURE 1-4A

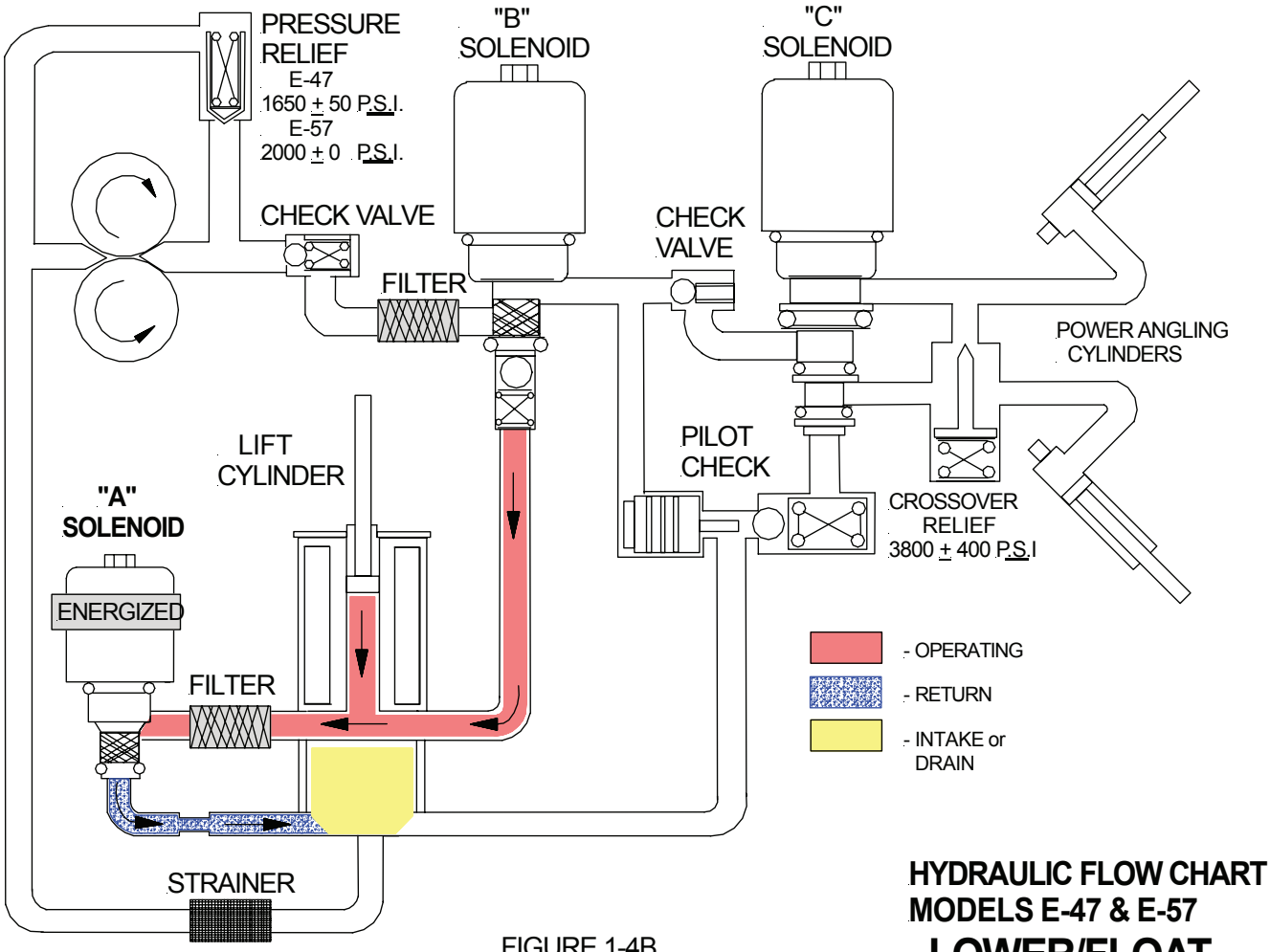
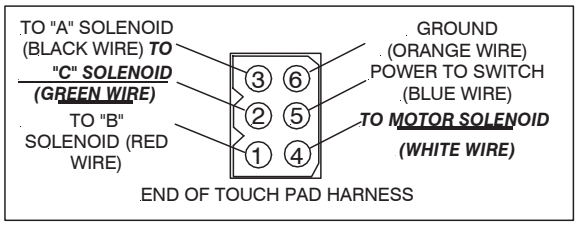


FIGURE 1-4B

HYDRAULIC FLOW CHART
MODELS E-47 & E-57
LOWER/FLOAT

ELECTRO -TOUCH CONTROLLER



RIGHT ANGLE

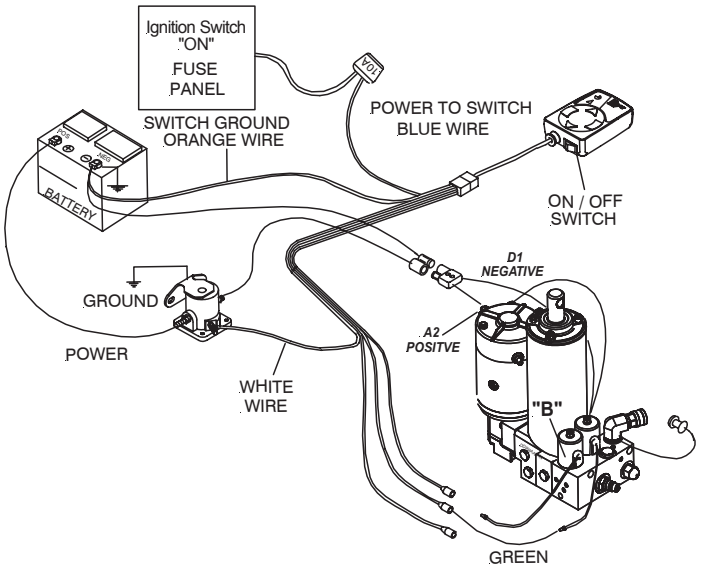


FIGURE 1-5A

SLIK - STIK SINGLE LEVER CONTROLLER

RIGHT ANGLE

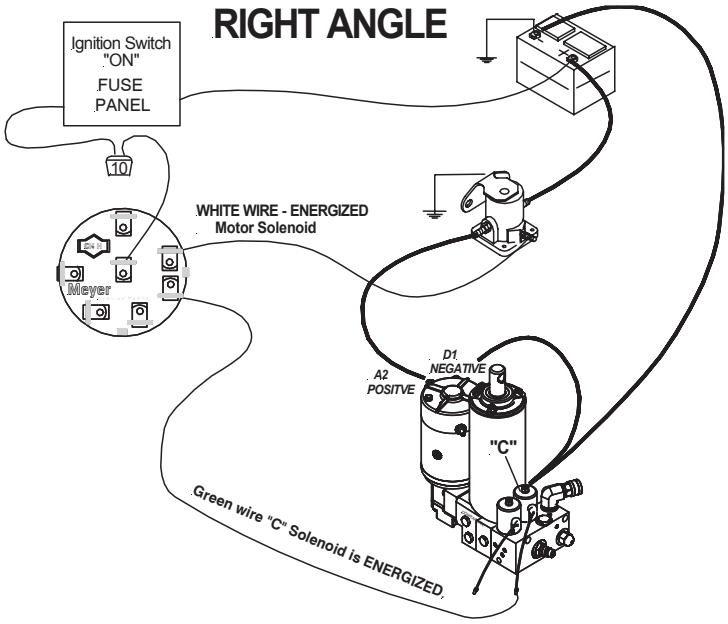


FIGURE 1-5A

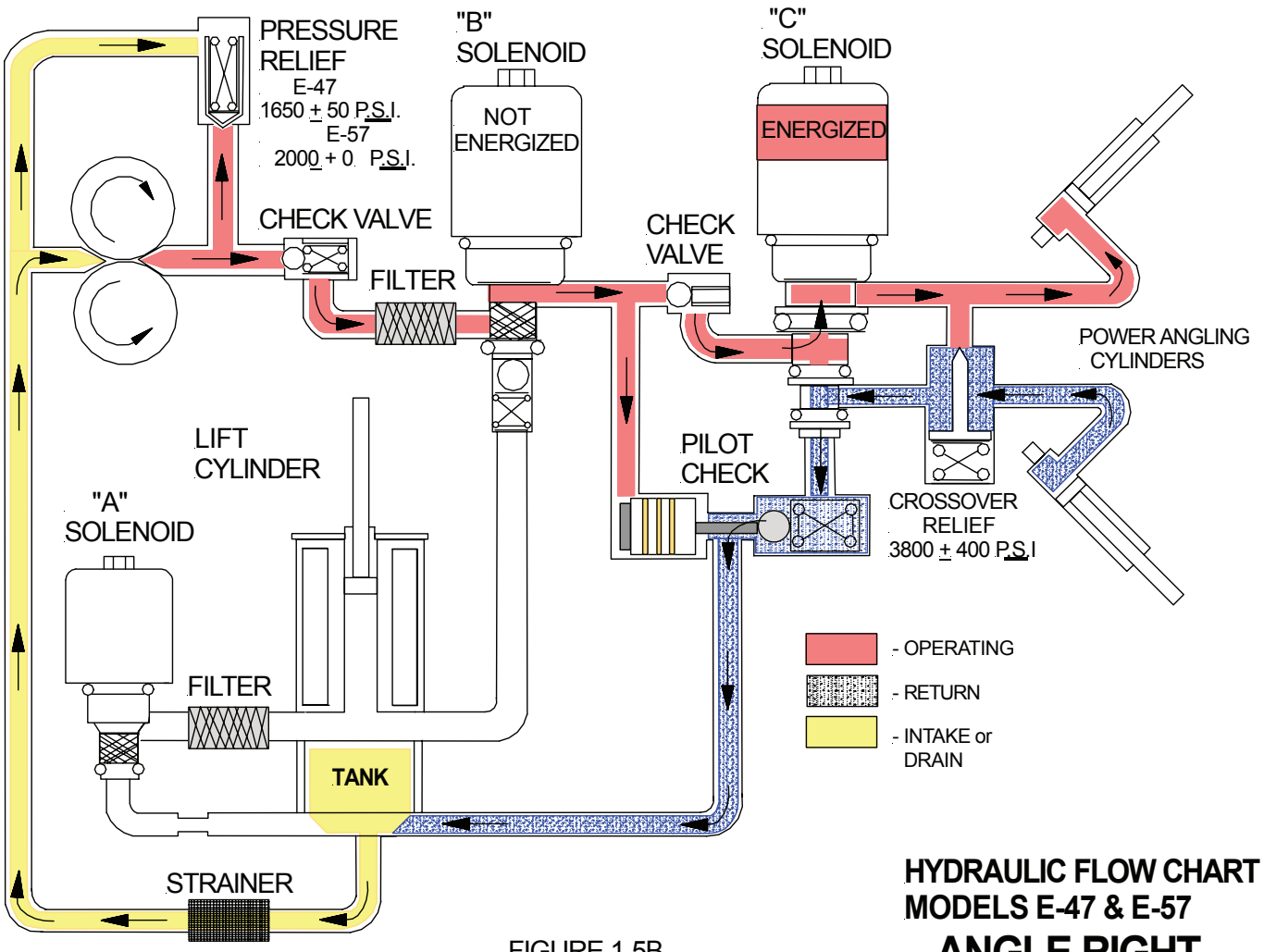
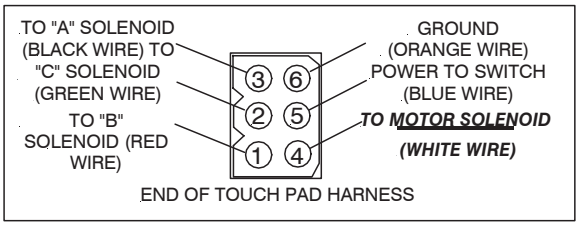


FIGURE 1-5B

HYDRAULIC FLOW CHART
MODELS E-47 & E-57
ANGLE RIGHT

ELECTRO -TOUCH CONTROLLER



LEFT ANGLE

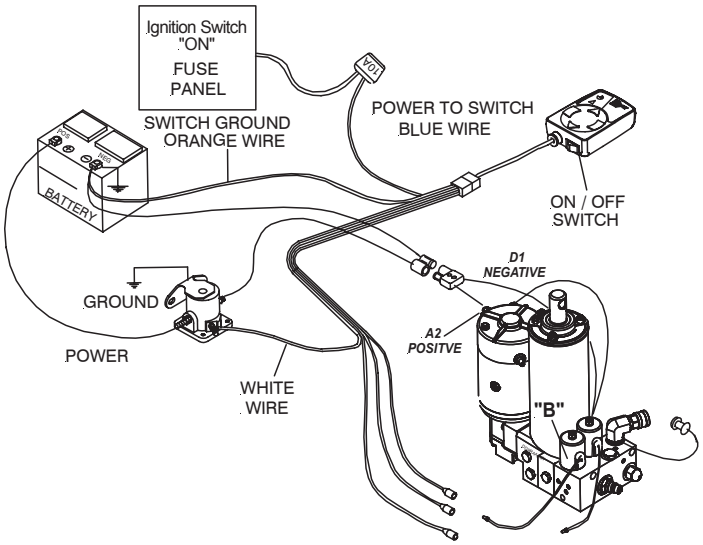


FIGURE 1-6A

SLIK - STIK SINGLE LEVER CONTROLLER

LEFT ANGLE

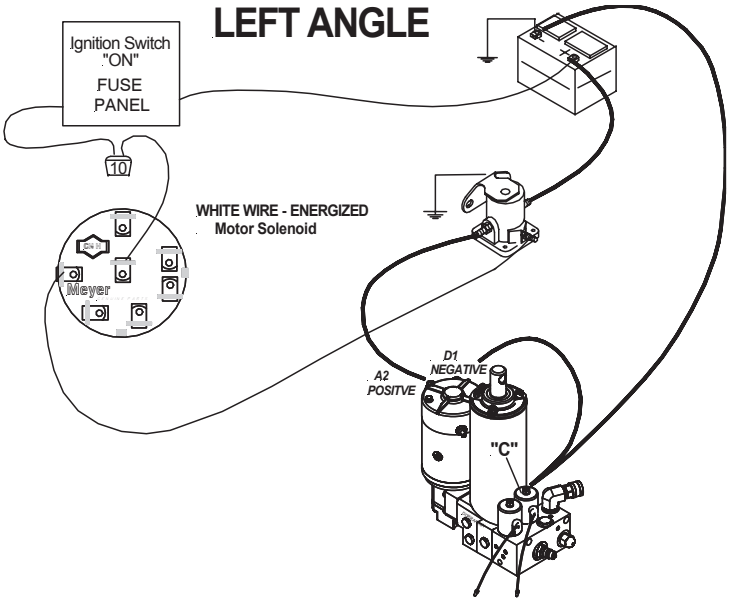


FIGURE 1-6A

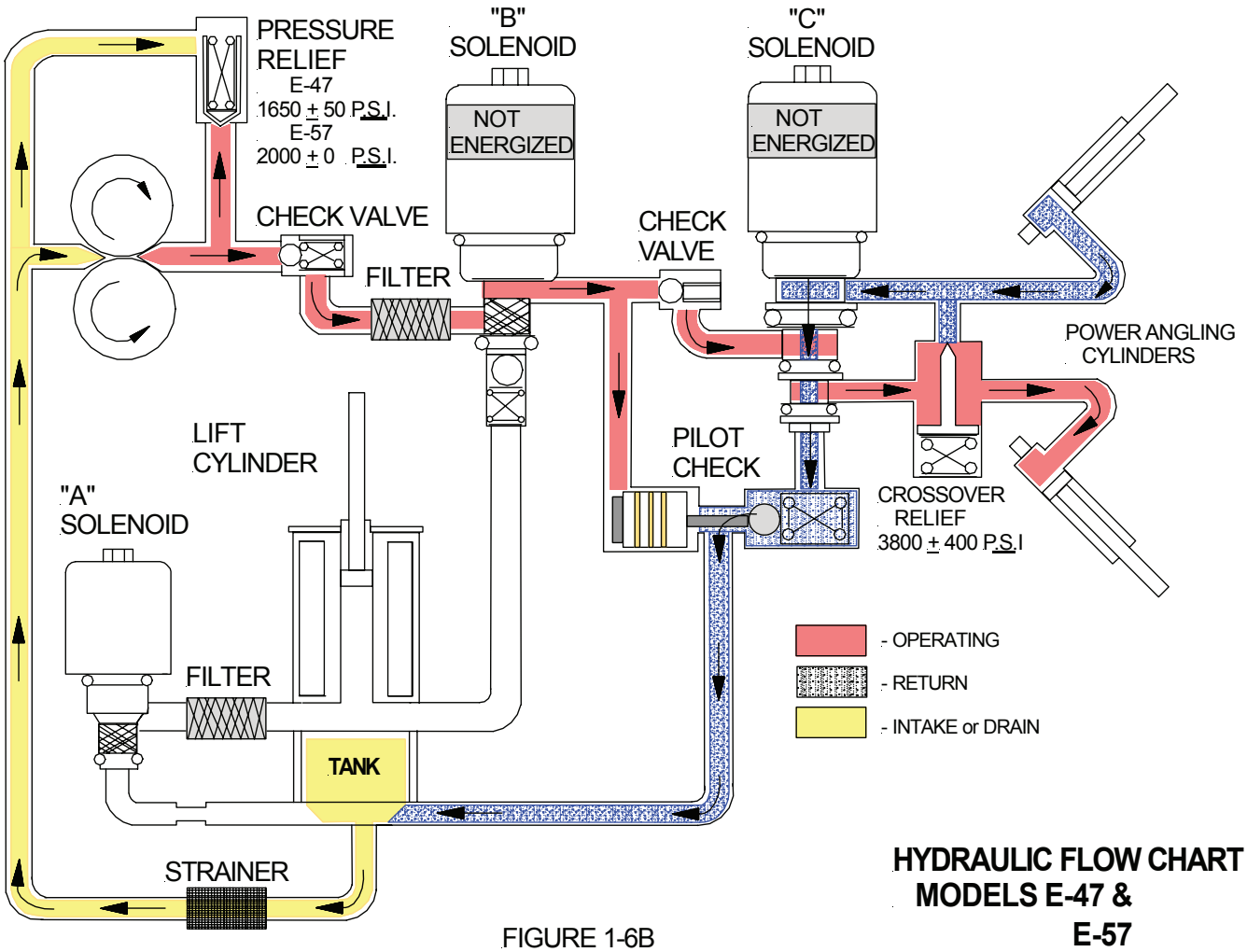
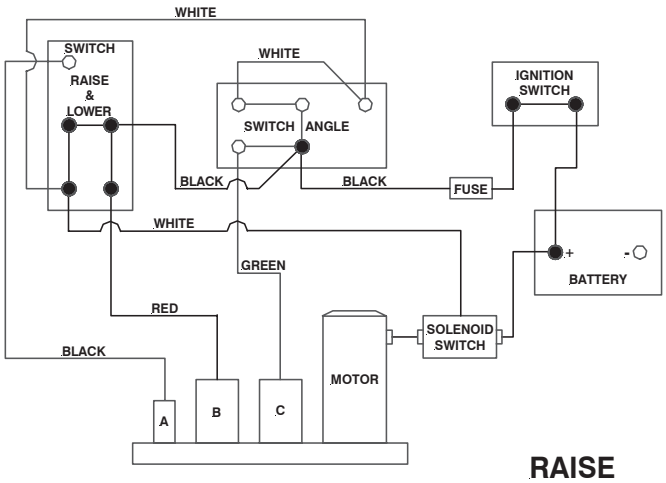


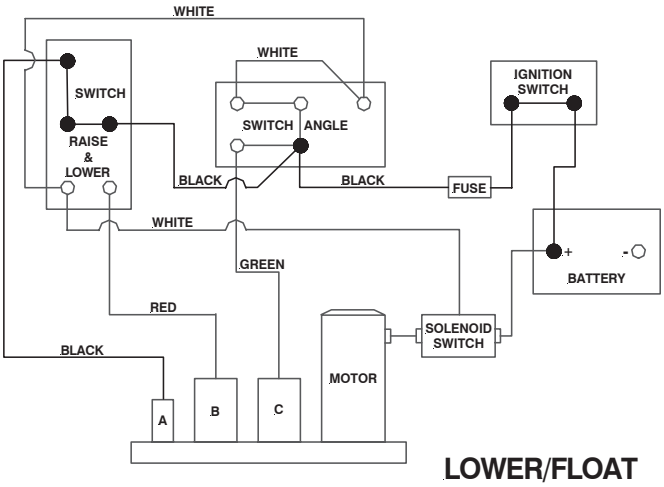
FIGURE 1-6B

HYDRAULIC FLOW CHART
MODELS E-47 &
E-57

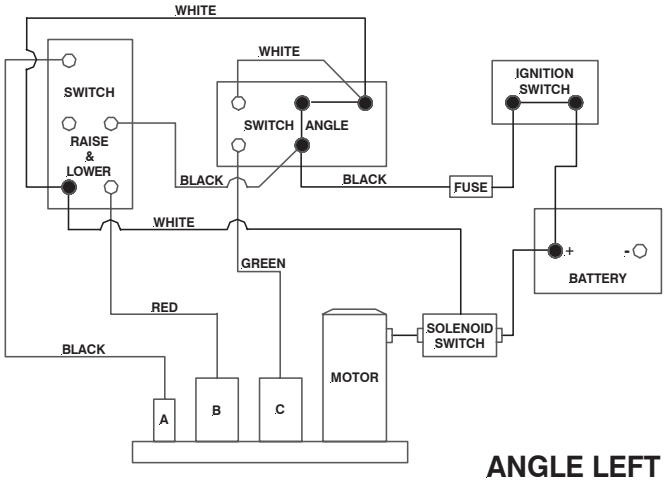
ANGLE LEFT



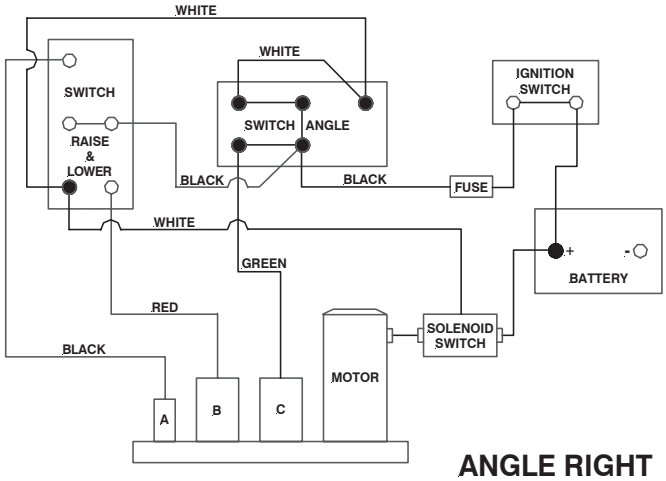
RAISE



LOWER/FLOAT



ANGLE LEFT



ANGLE RIGHT

DUAL SWITCH WIRING

PARTS & INSTALLATION INSTRUCTIONS

E-60 & E-60H QUIK LIFT®

ITEM	STANDARD-UP THROUGH C-9 1-1/8" x 6" Stroke E-60	LONG STROKE-MDII HM-9 & HM-10 1-1/8" x 8" Stroke E-60H	QTY.	DESCRIPTION
			1	Base & Tank Assembly
1	15726	15726	1	• Sump Base
2	15706	———	1	• **Ram Assy.** ***SEE ILLUSTRATION***
2	15335	15336	1	• Ram Assembly 1-3/4"
3	15208	15206	1	•• Ram
4	15158	15158	1	•• Piston
5	15219	15219	1	•• Piston Follower
6*	15162	15162	1	•• Packing Cup
7*	15125	15125	1	•• O-ring 7/16" I.D.
8		15760	1	•• Spacer
9	20316	20316	1	•• Locknut 1/2-13
10	15738	15738	1	• Cover & Seal Assembly
11*	05119	05119	1	•• Wiper
12*	15131	15131	1	•• O-ring 3-1/2" I.D.
13	15737	15737	1	•• Sleeve
	08473	08473	1	• Pressure Relief Valve Kit
14	21805	21805	1	•• Reducer Bushing 1/4-1/8
15	21806	21806	1	•• Pressure Relief Valve
16	15696	15704	1	• Cylinder Tank
17	15953	15205	1	• Cylinder
18	15209	15209	1	• Washer
19*	15198	15198	1	• O-ring 1-1/8 I.D.
20*	15131	15131	1	• O-ring 3-1/2 I.D.
21a*	15693		1	• O-ring 1-1/2 I.D.
21b*		15163	1	• O-ring 1-15/16 I.D.
22	20697	20697	3	• Locknut 5/16-24
23	15708	15709	3	• Stud
24*	21929	21929	5	• Washer, Nyltite 5/16
25	22129	22129	1	• Plug w/O-ring 9/16"
26	15641	15641	2	• Filter Kit 9/16"
27	15619	15619	1	•• Filter
28	21999	21999	1	•• Plug w/O-ring 9/16"
29	15695		1	• Spacer Ring
30	15729	15729	1	• Pump
31	15688	15688	2	• Dowel Pins
32	15713	15713	1	• Locator
33	15574	15574	1	• Pump Check Valve
34*	15124	15124	1	•• O-ring 3/8 I.D.
35	15354	15354	1	•• Seat
36	15603	15603	1	•• Ball 9/32
37	15604	15604	1	•• Spring
38*	15700	15700	1	• O-ring 3/8 I.D.
39	15702	15702	1	• Ball Seat
40	15699	15699	1	• Relief Valve
41*	15701	15701	1	• O-ring "Special"
42	22118	22118	1	• Socket Set Screw
43	15703	15703	1	• Pump Mounting Plate
44	22119	22119	2	• Bolt 3/8-16 x 3-1/4" Gr. 5
45	21083	21083	2	• Star Washer 3/8
46*	15122	15122	2	• O-ring 1/4 I.D.
47a*	**15123**	**15123**	**1**	• **O-ring 5/16 I.D.**
47b*	**15124**	**15124**	**1**	• **O-ring 3/8 I.D.**
48	15841	15841	1	• Motor - Two Terminal
49a	**15730**	**15730**	**1**	• **Cover/Motor Mount**
49b	**15831**	**15831**	**1**	• **Cover/Motor Mount w/tabs**
50	22120	22120	2	• Cap Screw 5/16 x 3-1/4"
51	15686	15686	1	• Pump Shaft Seal
52*	15687	15687	1	• O-ring 4-3/4 I.D.
53	15661	15661	1	• "A" Solenoid Assembly
54	15659	15659	1	•• "A" Coil, Black Wire
55	15660	15660	1	•• "A" Cartridge Valve
*	15431	15431	1	•• Seal Kit, "A" Valve

ITEM	STANDARD-UP THROUGH C-9 1-1/8" x 6" Stroke E-60	LONG STROKE-MDII HM-9 & HM-10 1-1/8" x 8" Stroke E-60H	QTY.	DESCRIPTION
53a	15972	15972	1	• "A" Solenoid Assembly
54a	15905	15905	1	•• "A" Coil, Black Wire
55a	15660	15660	1	•• "A" Cartridge Valve
56	22435	22435	1	•• "A" Coil Nut
*	15431	15431	1	•• Seal Kit, "A" Valve
57	15758	15758	1	• VALVE ASSY w/COUP.
58	22295	22295	1	•• Forged 90 Degree Elbow
59	22293	22293	1	•• Coupler, Male Half Low Spill
60	22294	22294	1	•• Coupler, Female Half Low Spill
61	15606	15606	1	• Kit-Crossover Valve
62			1	•• O-ring
63			1	•• O-ring
64			1	•• Cage
65			1	•• O-ring w/Glyd. Ring
66			1	•• Poppet
67			1	•• Washer
68			1	•• Guide
69			1	•• Spring
70			1	•• Spacer
71			1	•• Disc
72			1	•• Plug
73			1	•• Adj. Screw
74			1	•• O-ring
75			1	•• Acorn Nut 9/16-18
*	15610	15610	1	•• Seal Kit-Crossover Valve (includes items 62,63,65,74)
76	15639	15639	1	• Kit-Pilot Check Valve
77			1	•• Ball, Steel
78			1	•• Spring
79			1	•• Plug
80	15609	15609	1	• Piston
81	15359	15359	1	• Plug Valve Block
82*	15126	15126	1	•• O-ring 9/16 I.D.
83	15697	15697	1	• "B" Solenoid Assembly
84	15382	15382	1	•• "B" Coil, Red Wire
85	15698	15698	1	•• "B" Cartridge Valve
*	15432	15432	1	••• Seal Kit-"B" Cartridge
86	15358	15358	1	• "C" Solenoid Assembly
87	15430	15430	1	•• "C" Coil, Green Wire
88	15381	15381	1	•• "C"-Cartridge Valve
*	15433	15433	1	••• Seal Kit-"C" Cartridge
89	15576	15576	1	• Kit-"B" Solenoid Check Valve
90			1	•• Ball, 7/16
91			1	•• Spring
92	21826	21826	4	• Scr., Soc. Head 5/16-18 x 1-1/2"

NOTES:
Parts indented are included in assembly under which they are indented.

1. * Parts included in Master Seal Kit Part No. 15705.
2. Basic Seal Kit Part No. 15707.
3. Set Crossover Relief Valve @ 3800 ± 400 P.S.I. @ 2-1/2 G.P.M.

E-60 with (1-1/4" Lift Ram Assembly)
Set Pump Relief Valve @ 2500 ± 50 P.S.I. full flow @ 1.85 G.P.M.

E-60 & E-60H with (1-3/4" Lift Ram Assembly)
Set Pump Relief Valve @ 2000 ± 50 P.S.I. full flow @ 1.85 G.P.M.

QUIK-LIFT® E-60 and E-60H

Exploded View

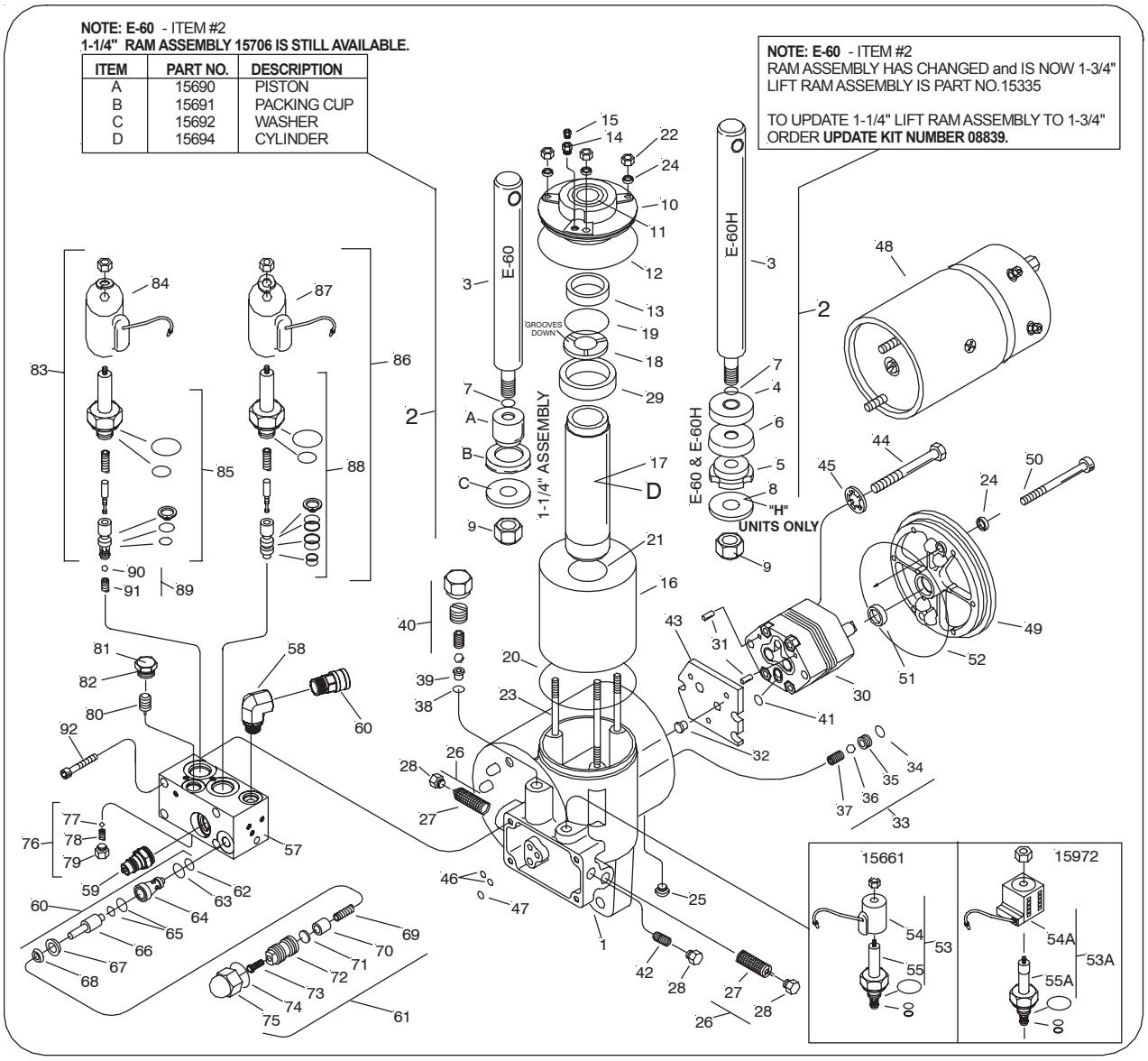


Figure 1A

RAISE E-60 and E-60H

When the Electro-Touch® control switch is powered up, yellow lights illuminate the location of the individual arrows for the function of the snow plow: Up, Left, Right and Down.

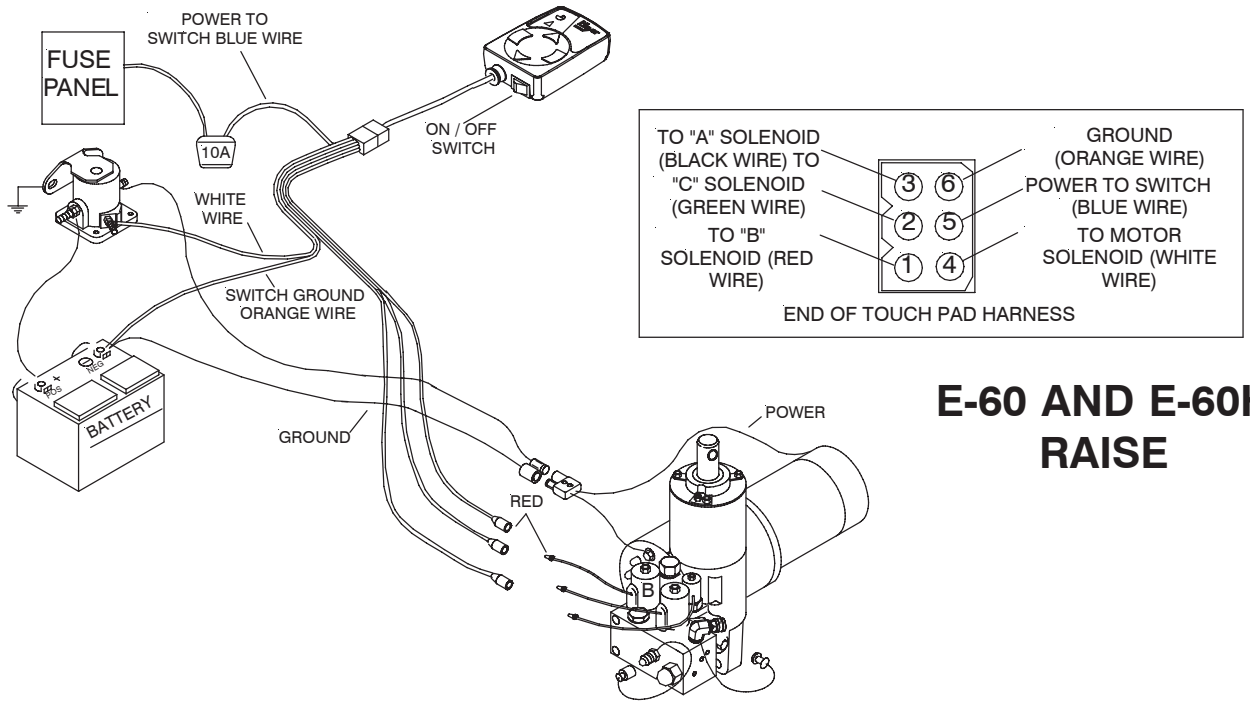
CAUTION:
When the snow plow is not in operation, the Electo-Touch® control switch should be in the "OFF" position.

IMPORTANT:
The power lead (blue wire with fuse) should be connected to a terminal on fuse panel that is **HOT ONLY** when the ignition switch is in the **"ON"** position.

When the Up arrow is activated, electric power is sent to both the **MOTOR & "B" Solenoid** via wiring harness.

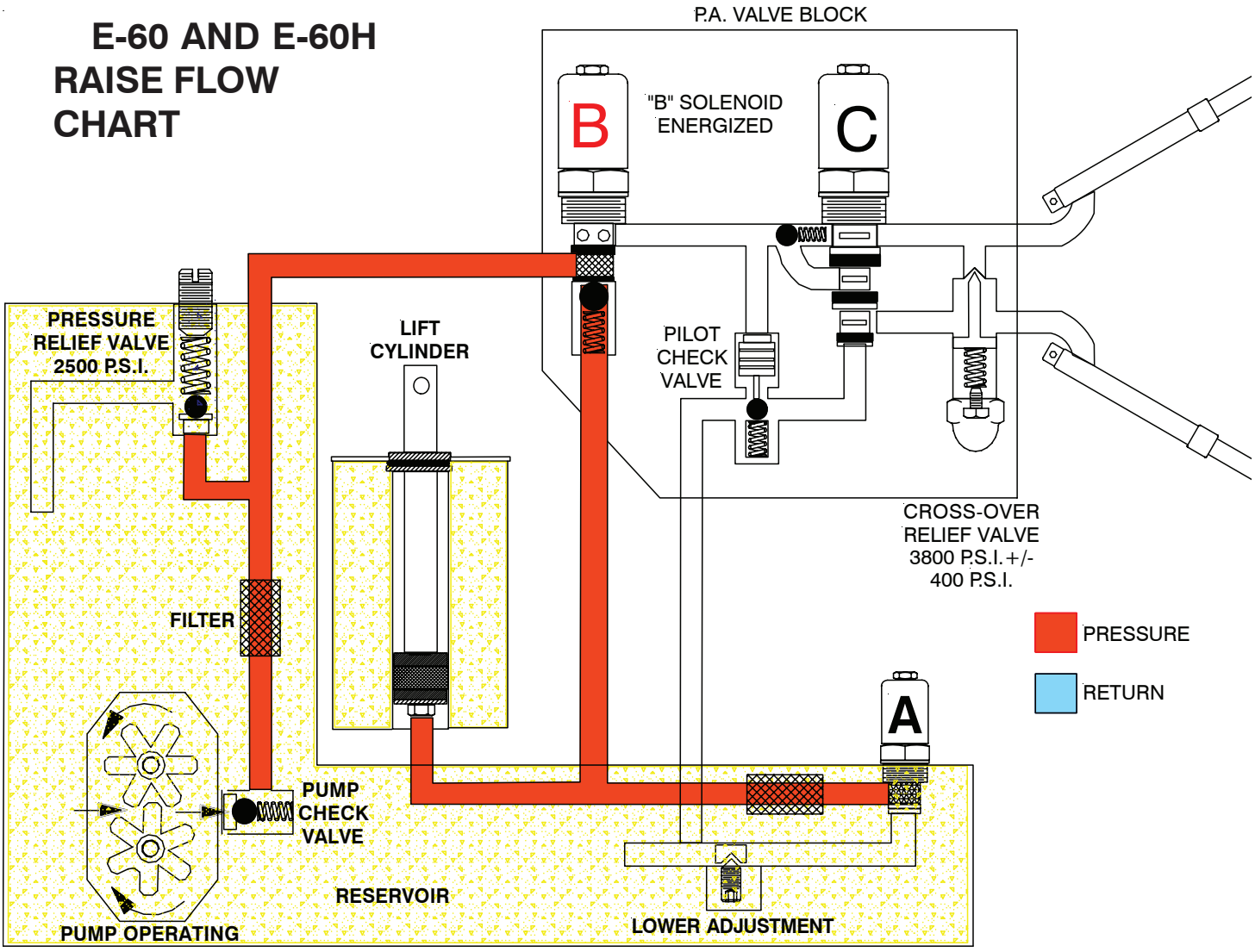
MOTOR SOLENOID
Electric power is sent to this solenoid by the **WHITE** wire. This wire connects to the small terminal on the motor solenoid. This wire activates the solenoid switch, allowing electrical power from the vehicle battery to pass through the solenoid to the lift motor via cables.
NOTE: Motor Solenoid must have a good ground to operate properly.

"B" SOLENOID
Electrical power is sent to this solenoid by the **"RED"** wire. This solenoid, when energized, directs hydraulic fluid to the lift cylinder.
NOTE: See illustration below for proper location of **"B"** Solenoid on the lift unit.



E-60 AND E-60H RAISE

E-60 AND E-60H RAISE FLOW CHART



LOWER / FLOAT E-60 and E-60H

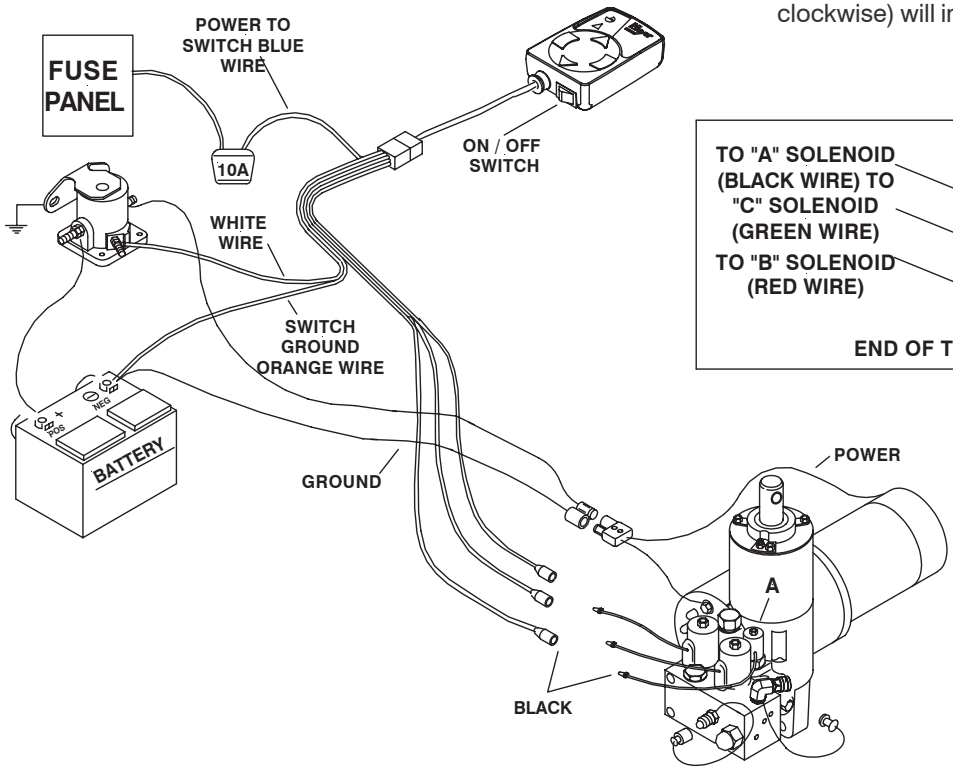
When the Electro-Touch® control switch is powered up, yellow lights illuminate the location of the individual arrows for the function of the snow plow: Up, Left, Right and Down.

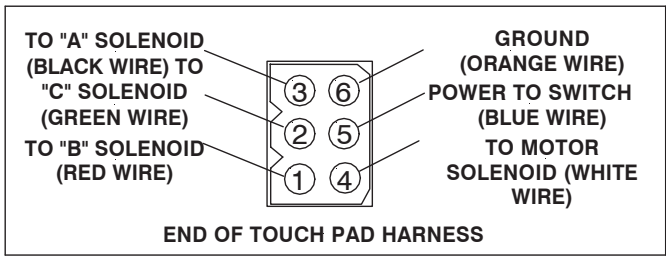
CAUTION:
When the snow plow is not in operation, the Electo-Touch® control switch should be in the "OFF" position.

IMPORTANT:
The power lead (blue wire with fuse) should be connected to a terminal on fuse panel that is **HOT ONLY** when the ignition switch is in the **"ON"** position.

When the DOWN arrow is activated, electric power is sent only to the **"A"Solenoid** via wiring harness. Electrical power is sent to this solenoid by the **BLACK** wire. This wire connects to the **BLACK** wire on the **"A" Solenoid**. Lowering of the snow plow an inch at a time is possible by tapping the down arrow in short intervals. Holding down the down arrow will activate the float light located on the upper left of the Electo-Touch® control switch. This light indicates the snow plow is now in the Lower / Float position. In this position the snow plow will be able to follow the contour of the road and the snow plow can also be angled left or right. Touching the Up arrow on the touch pad automatically cancels the Lower / Float position. Turning off the ignition switch or the touch pad will reset the switch.

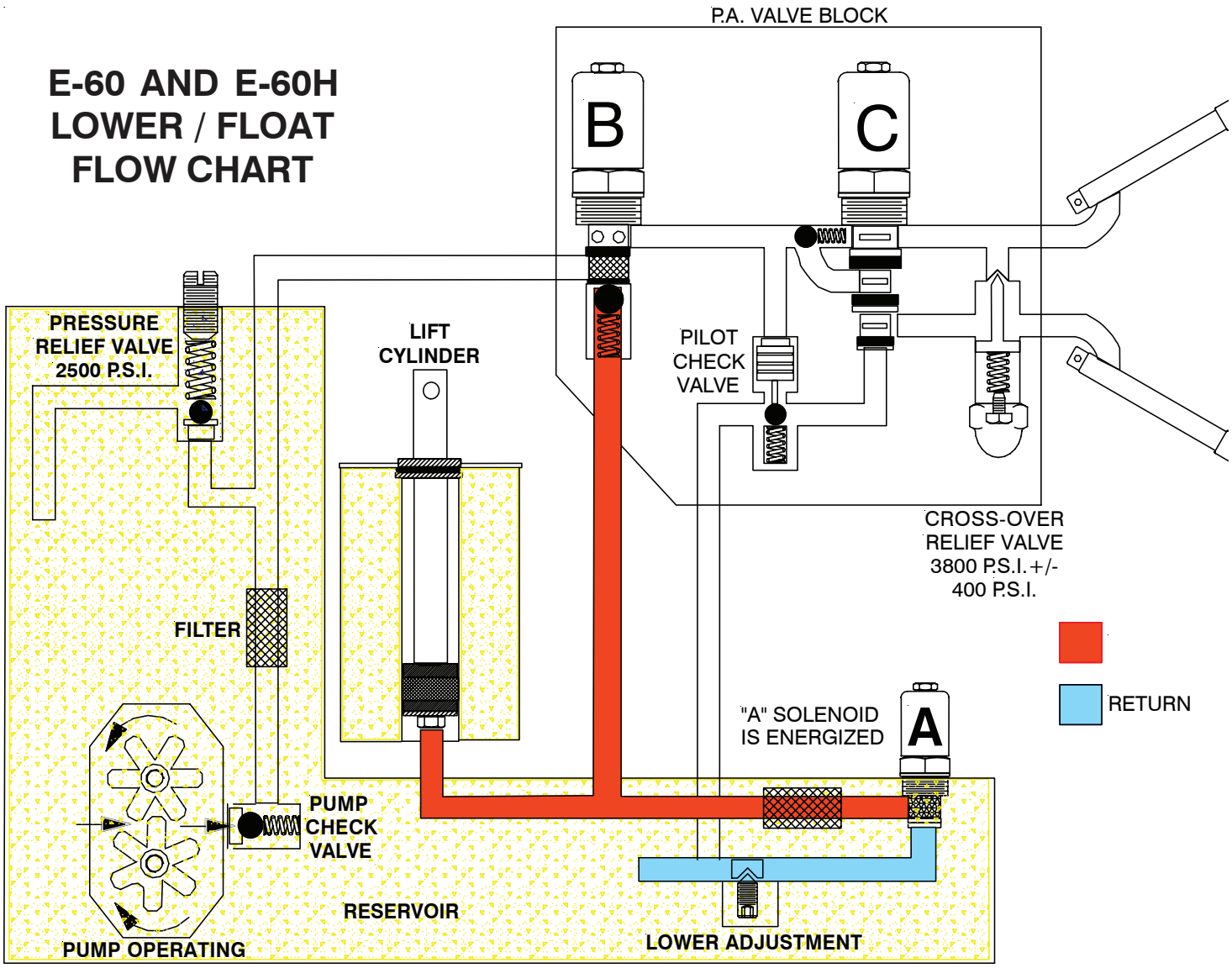
Note: The rate (speed) at which the snow plow is lowered is adjustable. Turning the Lower Adjustment Screw in (clockwise) will decrease the speed at which the plow is lowered by gravity, and turning the screw out (counter-clockwise) will increase the rate.





E-60 AND E-60H LOWER / FLOAT

E-60 AND E-60H LOWER / FLOAT FLOW CHART



ANGLE LEFT E-60 and E-60H

When the Electro-Touch® control switch is powered up, yellow lights illuminate the location of the individual arrows for the function of the snow plow: Up, Left, Right and Down.

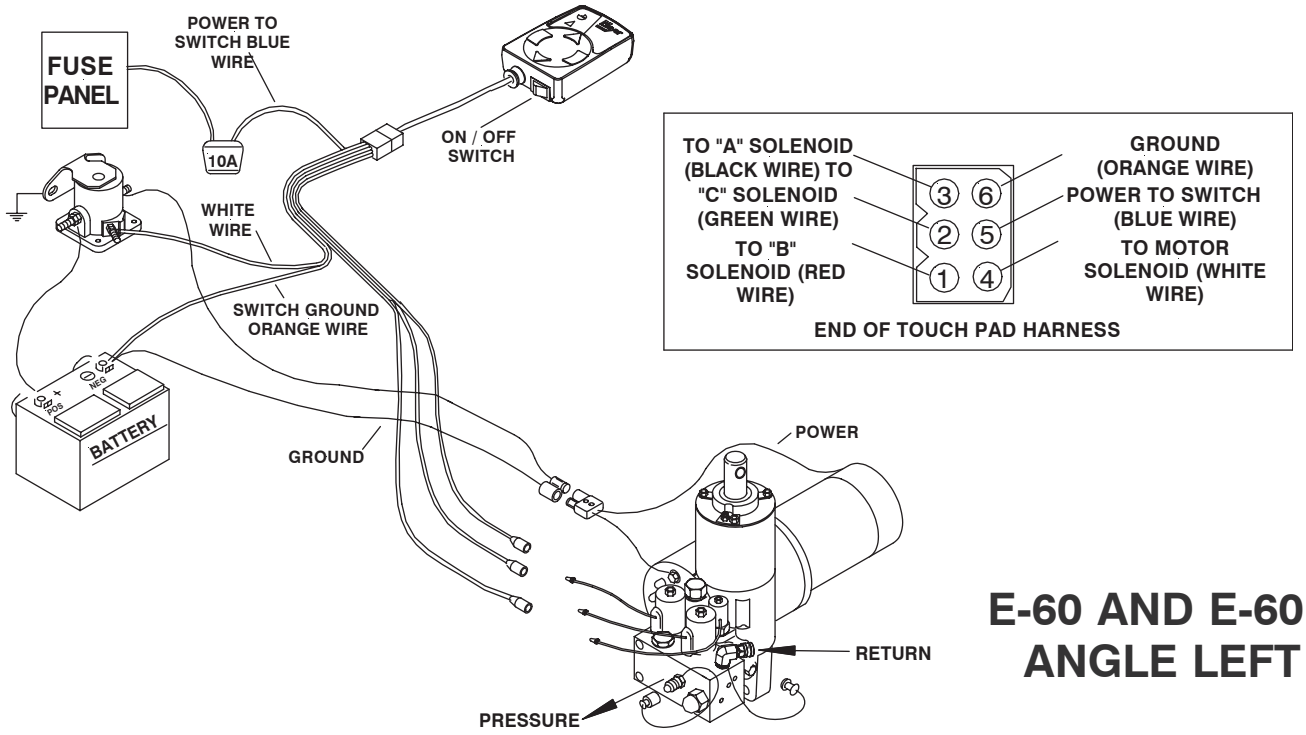
CAUTION:
When the snow plow is not in operation, the Electo-Touch® control switch should be in the "OFF" position.

IMPORTANT:
The power lead (blue wire with fuse) should be connected to a terminal on fuse panel that is **HOT ONLY** when the ignition switch is in the **"ON"** position.

When the Left arrow is activated, electric power is sent only to the **MOTOR Solenoid** via wiring harness.

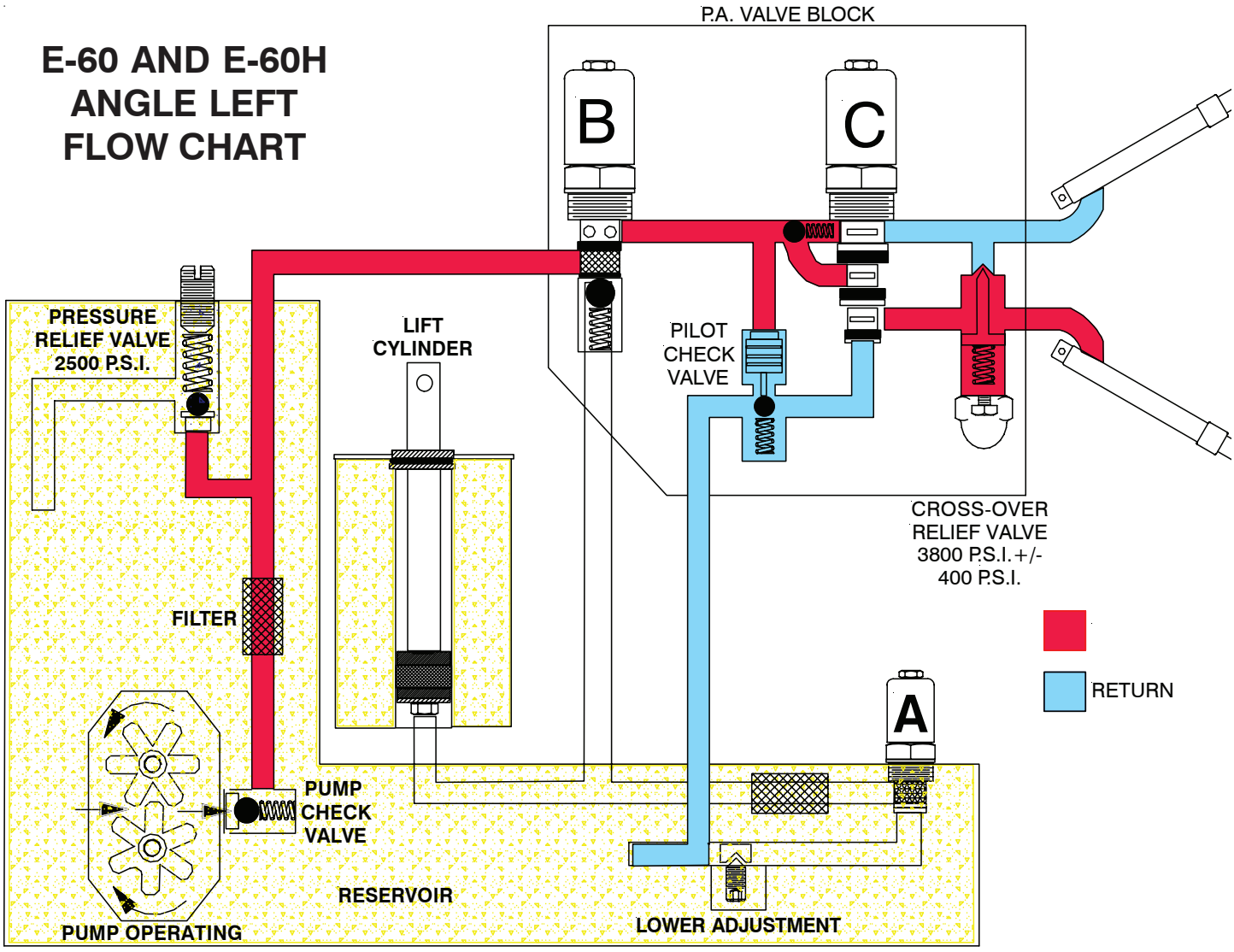
MOTOR SOLENOID
Electric power is sent to this solenoid by the **WHITE** wire. This wire connects to the small terminal on the motor solenoid. This wire activates the solenoid switch, allowing electrical power from the vehicle battery to pass through the solenoid to the lift motor via cables.
NOTE: Motor Solenoid must have a good ground to operate properly.

"B" and "C" SOLENOIDS
Electrical power is not sent to either of these solenoid. The "C" Solenoid, when **NOT** energized, directs the pressurized hydraulic fluid out of the hose to the right (passenger-side) power angle cylinder.



E-60 AND E-60H ANGLE LEFT

E-60 AND E-60H ANGLE LEFT FLOW CHART



ANGLE RIGHT E-60 and E-60H

When the Electro-Touch® control switch is powered up, yellow lights illuminate the location of the individual arrows for the function of the snow plow: Up, Left, Right and Down.

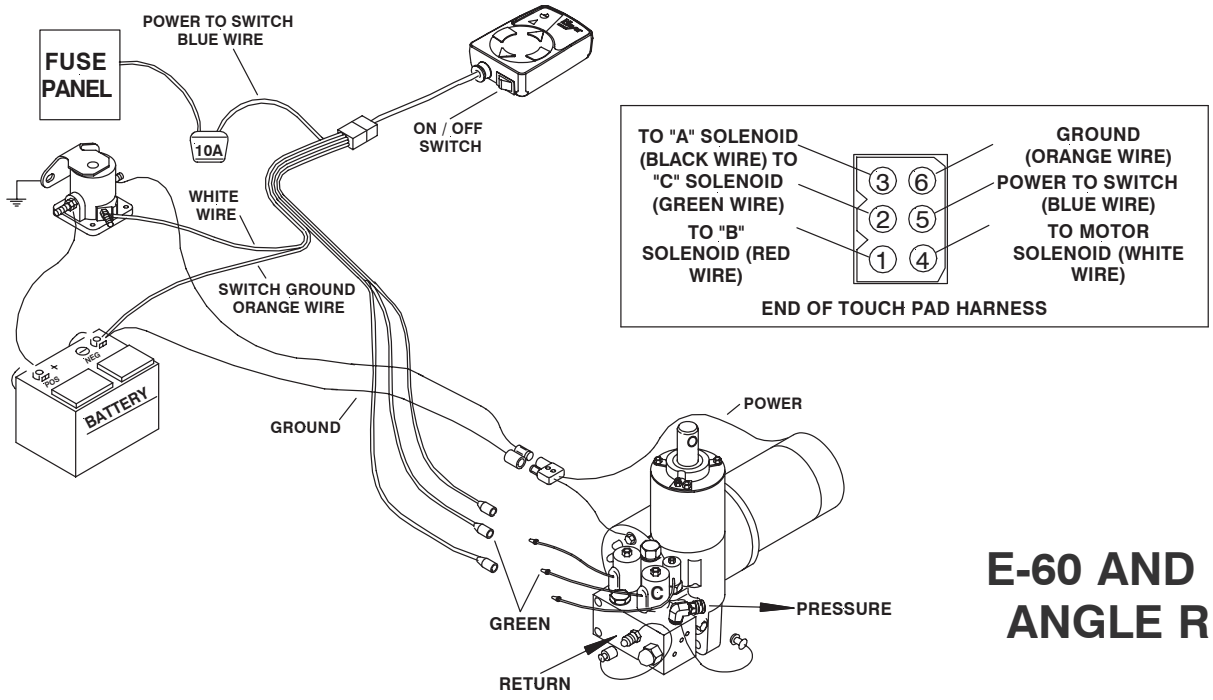
CAUTION:
When the snow plow is not in operation, the Electo-Touch® control switch should be in the "OFF" position.

IMPORTANT:
The power lead (blue wire with fuse) should be connected to a terminal on fuse panel that is **HOT ONLY** when the ignition switch is in the **"ON"** position.

When the Right arrow is activated, electric power is sent to the **MOTOR & "C" Solenoid** via wiring harness.

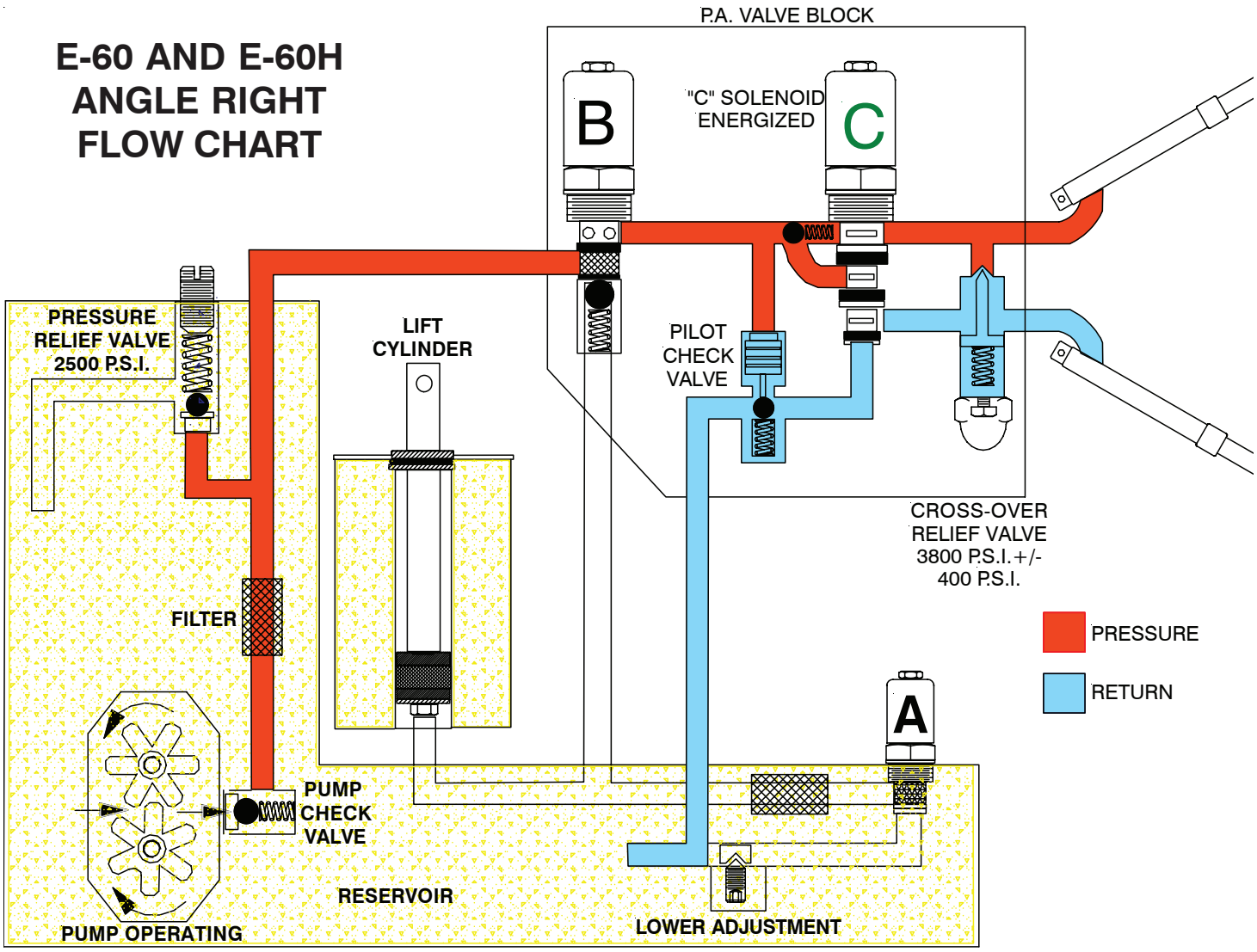
MOTOR SOLENOID
Electric power is sent to this solenoid by the **WHITE** wire. This wire connects to the small terminal on the motor solenoid. This wire activates the solenoid switch, allowing electrical power from the vehicle battery to pass through the solenoid to the lift motor via cables.
NOTE: Motor Solenoid must have a good ground to operate properly.

"C" SOLENOID
Electrical power is sent to this solenoid by the "GREEN" wire. The "C" Sole-noid, when energized, directs the pressurized hydraulic fluid out of the cou-pler to the left (driver-side) power angle cylinder.
Note: See illustration below for proper location of "C" Solenoid on the lift unit.



E-60 AND E-60H ANGLE RIGHT

E-60 AND E-60H ANGLE RIGHT FLOW CHART

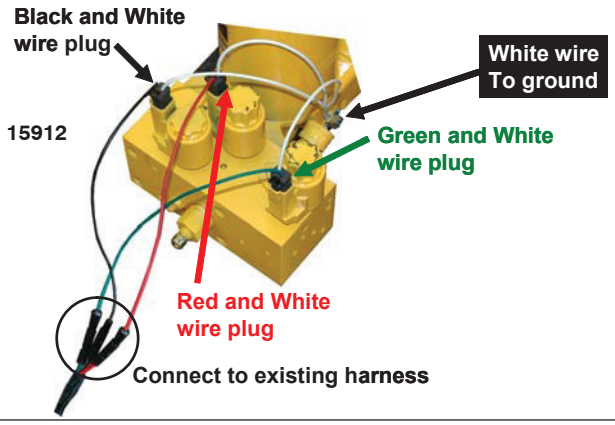


PARTS & INSTALLATION INSTRUCTIONS

15995 E-58H Unit Only Hydraulic Carton

PARTS LIST

Part No.	QTY	Description
15995	1	E-58H Hydraulic Unit
15630	1	• E-58H Cover
15631	1	• Cover Strap
08128	1	• Adapter Kit
15912	1	•• Connector Adapter
22652	2	•• SAE 6 x 1/4" NPT Adapter
22461	2	•• 1/4 x 38" Hose Assy SAE 6 x Face Seal
08206	1	•• Coupler Kit
22442	1	••• SAE 6 Male P.A. Block Coupler
22443	1	••• SAE 6 Female Coupler
22444	1	••• SAE 6 Nipple Female Coupler
22445	1	••• SAE 6 Female P.A. Block Coupler



Note: Do not use couplers (22443 and 22444) on units installed on E-Z Mount Plus, MDII or Drive Pro Plow Systems. Use 1/4 x 33" Hose Assy SAE 6 x Face Seal. (eliminates coupler use on both the ange cylinder hoses and P.A. Block)

Note: Only use couplers (22443 and 22444) on units installed on E-Z Mount Classic or E-Z Mount Custom Plow Systems where only the plow is removed from the vehicle.

Passenger Side NPT Hose with SAE Adapter

Passenger Side SAE Hose

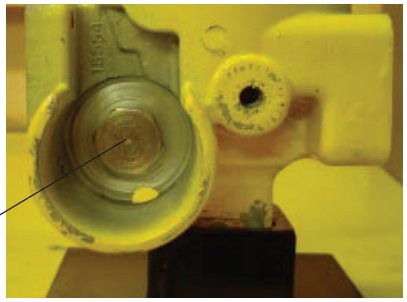
Driver Side NPT Hose with SAE Adapter

Driver Side SAE Hose

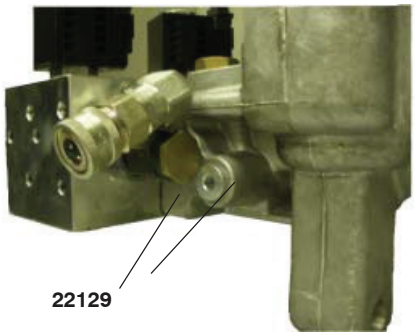
Drill .66" diameter hole 9-7/16" from rear bolt on existing Lift Arm for EZ Mount Classic and Custom mountings only. (See S.B. 208)

PARTS & INSTALLATION INSTRUCTIONS

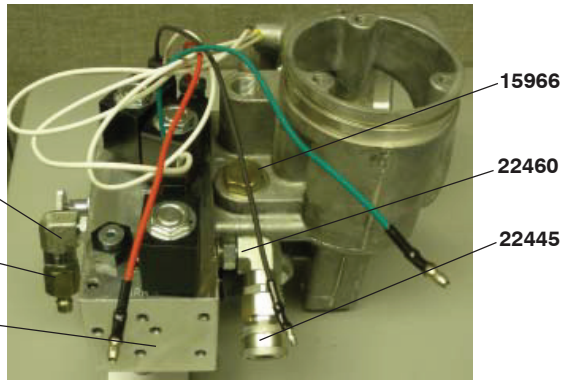
15967 P.A. Block Kit E-47/E-57/E-58/E-60/E-61/E-78



E-47, E-47H, E-57 & E-57H Only



Note: On the E-60/61 units only remove the lower adjustment and lower filter hex plugs and replace with 22129 Allen Plug to allow clearance for the crossover relief valve on the PA Block.



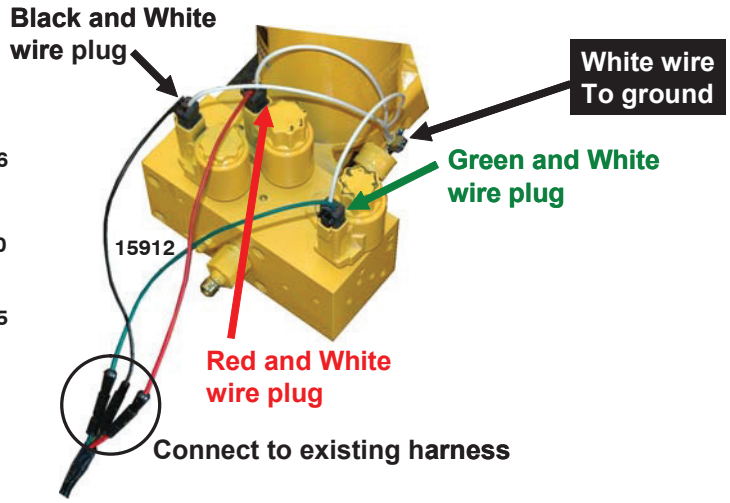
E-60, E-60H, E-61 & E-61H Only

PARTS LIST

Part No.	QTY	Description
15967		P.A. Block Kit
16016	1	• P.A. Block
08653	1	• Hardware Bag
15210	1	•• O-ring Kit
15912	1	•• Connector Adapter
15966	1	•• Cavity Plug
22652	2	•• SAE 6 x 1/4" NPT Adapter
22460	2	•• Elbow 90 degree SAE 6
22442	1	•• SAE 6 Nipple Female
22443	1	•• SAE 6 Female Coupler
22444	1	•• SAE 6 Nipple Female
22445	1	•• SAE 6 Female Coupler
22461	2	•• 1/4 x 38" Hose Assy SAE 6 x Face Seal
22129	2	•• Allen Plug W/Oring SAE 6

Note: Use 15966 Cavity plug in place of "A" Valve assembly on all hydraulic units.

Note: O-ring Kit 15210 contains the three o-rings which are used between the P.A. Block and the Base Casting. Be sure to use the correct o-ring sizes since different sizes are used on the E-60 & E-60H Hydraulic Units



Note: Only use couplers (22443 and 22444) on units installed on E-Z Mount Classic or E-Z Mount Custom Plow Systems where only the plow is removed from the vehicle.

Passenger Side NPT Hose with SAE Adapter

Passenger Side SAE Hose

Driver Side NPT Hose with SAE Adapter

Driver Side SAE Hose

PARTS & INSTALLATION INSTRUCTIONS
E-58H ELECTRO-LIFT® UNITS

PARTS LIST

ITEM	E-58H	QTY	DESCRIPTION
1	15869	1	**Pump & Motor Assy. (12 volt)**
2	15727	1	• Motor - 12 Volt (2 Terminal)
3	15889	1	• Pump Assy.
4	15874	1	••Kit - Pump Relief Valve
5	15870	1	•• Relief Valve Assy.
6	15878	1	•• Plug w/O-Ring
7	08788	1	• Hardware Bag - 15889
8	15973	3	•• Pump Stud
9	20697	3	•• Locknut 5/16 - 24
10*	15875	1	Seal Kit Relief Valve
11	15877	1	Pump Shaft Seal
12	15204	1	Cylinder Tank
13*	15131	1	O-Ring 3-1/2 I.D.
14*	15163	1	O-Ring 1-15/16 I.D.
15*	15198	1	O-Ring 1-1/8 I.D.
16	15738	1	**Cover & Seal Assy.**
17*	05119	1	• Wiper
18*	15131	1	• O-Ring 3-1/2 I.D.
19	15737	1	• Sleeve
	08473	1	**Pressure Relief Valve Kit**
20	21805	1	• Reducer Bushing 1/4 x 1/8
21	21806	1	• Pressure Relief Valve
22	15205	1	Cylinder
23	15209	1	Washer (Grooves Down)
24	15761	1	**Ram Assembly**
25	15206	1	• Ram
26	15158	1	• Piston
27	15219	1	• Piston Follower
28	15760	1	• Spacer
29*	15162	1	• Packing Cup
30*	15125	1	• O-Ring 7/16 I.D.
31	20316	1	• Locknut 1/2-13
32	15980	1	**Base & Strainer Assy.**
33	15326	1	• Strainer
34	15641	1	• **Filter Kit - 9/16"**
35	15619	1	•• Filter
36	21999	1	•• Plug w/O-Ring - 9/16"
37	15203	3	Stud
38	15621	1	Baffle
39	21980	2	Retainer Ring
40	15574	1	**Pump Check Valve Kit**
41*	15124	1	• O-Ring 3/8 I.D.
42	15354	1	• Seat
43	15603	1	• Ball, 9/32
44	15604	1	• Spring
45*	15122	3	O-Ring 1/4 I.D.
46	21999	2	**Drain Plug w/O-Ring - 9/16"**
47*	15127	1	O-Ring 5/8 I.D.
48*	21929	3	Washer, Nyltite 5/16
49	20697	3	Locknut 5/16 - 24

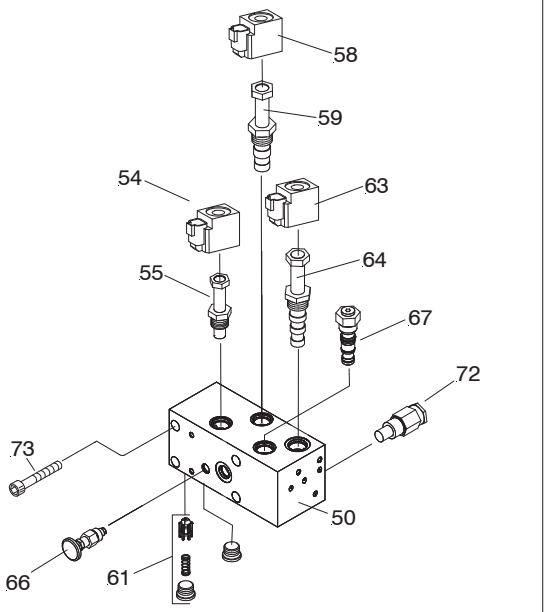
ITEM	E-58H	E-58H New	QTY	DESCRIPTION
50	15967	15967	1	• **Valve Assy. (12V)**
51	---------	---------	2	• Coupler, Female Half **(OPTIONAL)**
51	22445	---------	1	• Coupler, Female Half **(OPTIONAL)**
52	---------	---------	2	• Coupler, Male Half **(OPTIONAL)**
52	22442	---------	1	• Coupler, Male Half **(OPTIONAL)**
53	15925	---------	1	**"A" Solenoid Assembly**
54	15916	15118	1	•• Coil (12V)
55	15917	15146	1	•• "A" Cartridge Valve
56	15928	---------	1	••• Seal Kit, "A" Valve
57	15926	---------	1	**"B" Solenoid Assembly**
58	15916	15118	1	•• Coil (12V)
59	15918	15117	1	•• "B" Cartridge Valve
60	15929	---------	1	••• Seal Kit, "B" Valve
61	15959	15152	1	Kit- "B" Check Valve
62	15987	---------	1	**"C" Solenoid Assembly**
63	15916	15118	1	•• Coil (12V)
64	15958	15111	1	•• "C" Cartridge Valve
65	15930	---------	1	••• Seal Kit "C" Cartridge
66	15950	15165	1	Lower Adjustment Valve
67	15965	15148	1	Dual PO Check Valve
68	15951	---------	1	**Kit P.A. Block Filter**
69	15936	---------	1	• Tank Filter
70	15938	---------	1	• O-ring
71	15937	---------	1	• M16 x 1 Filter Cap
72	15974	15179	1	Crossover Valve
73	21826	21826	4	Soc. Head 5/16-18 x 1-1/2"

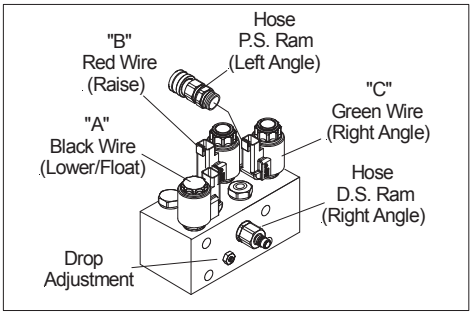
Parts indented are included in assembly under which they are indented.

* Parts included in Master Seal Kit Part No. 15969 (E-58H)
Basic Seal Kit Part No. 15254
Pump Relief Valve @ 2000 ± 50 P.S.I. full flow. **Non Adjustable**
Crossover Relief Valve @ 3800 ± 400 P.S.I. @ 2-1/2 G.P.M. **Non Adjustable**

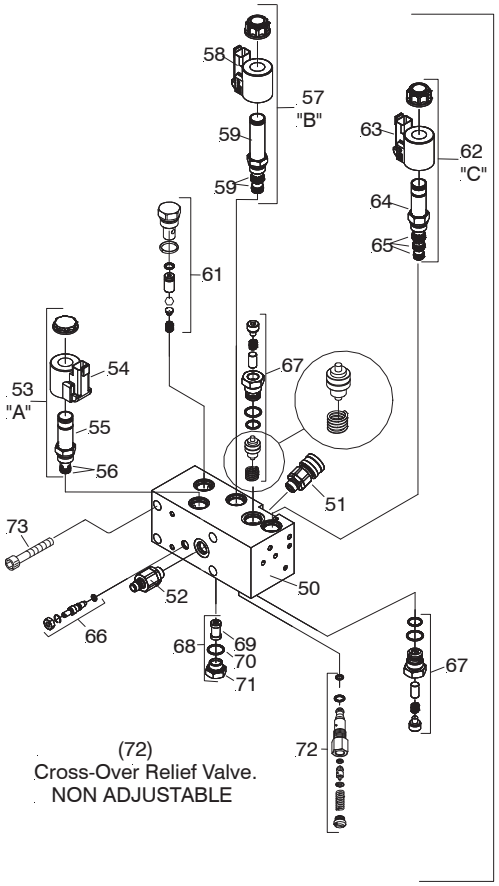
EXPLODED VIEW

E-58H New Block

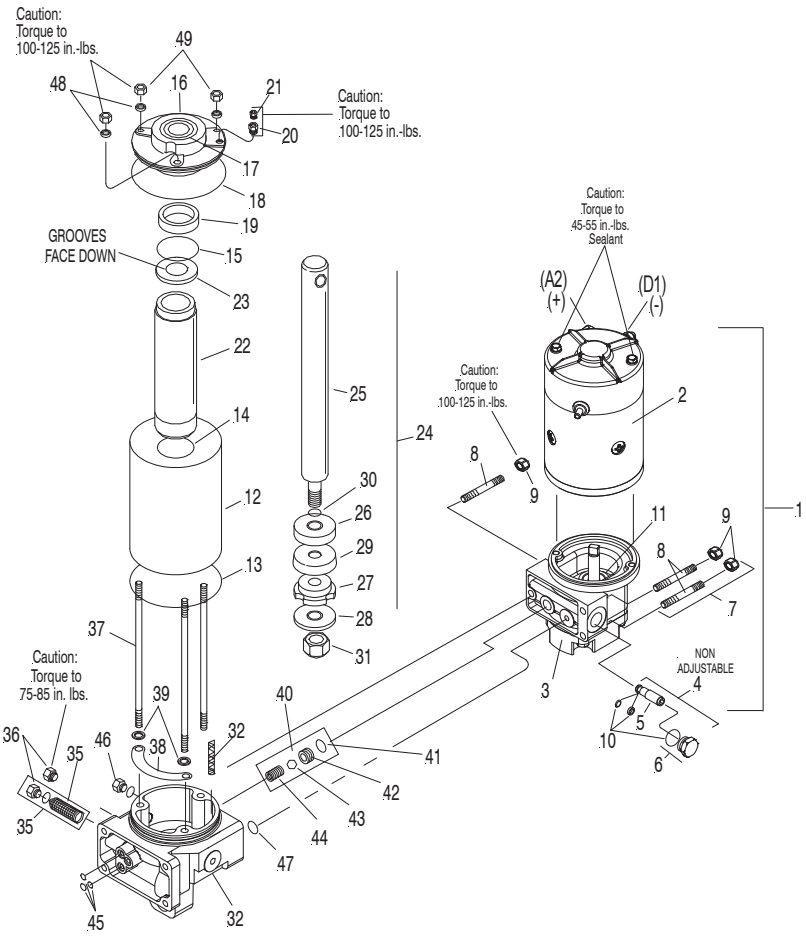




E-58H



(72)
Cross-Over Relief Valve.
NON ADJUSTABLE



E-58H Raise, Motor and “B” Solenoid

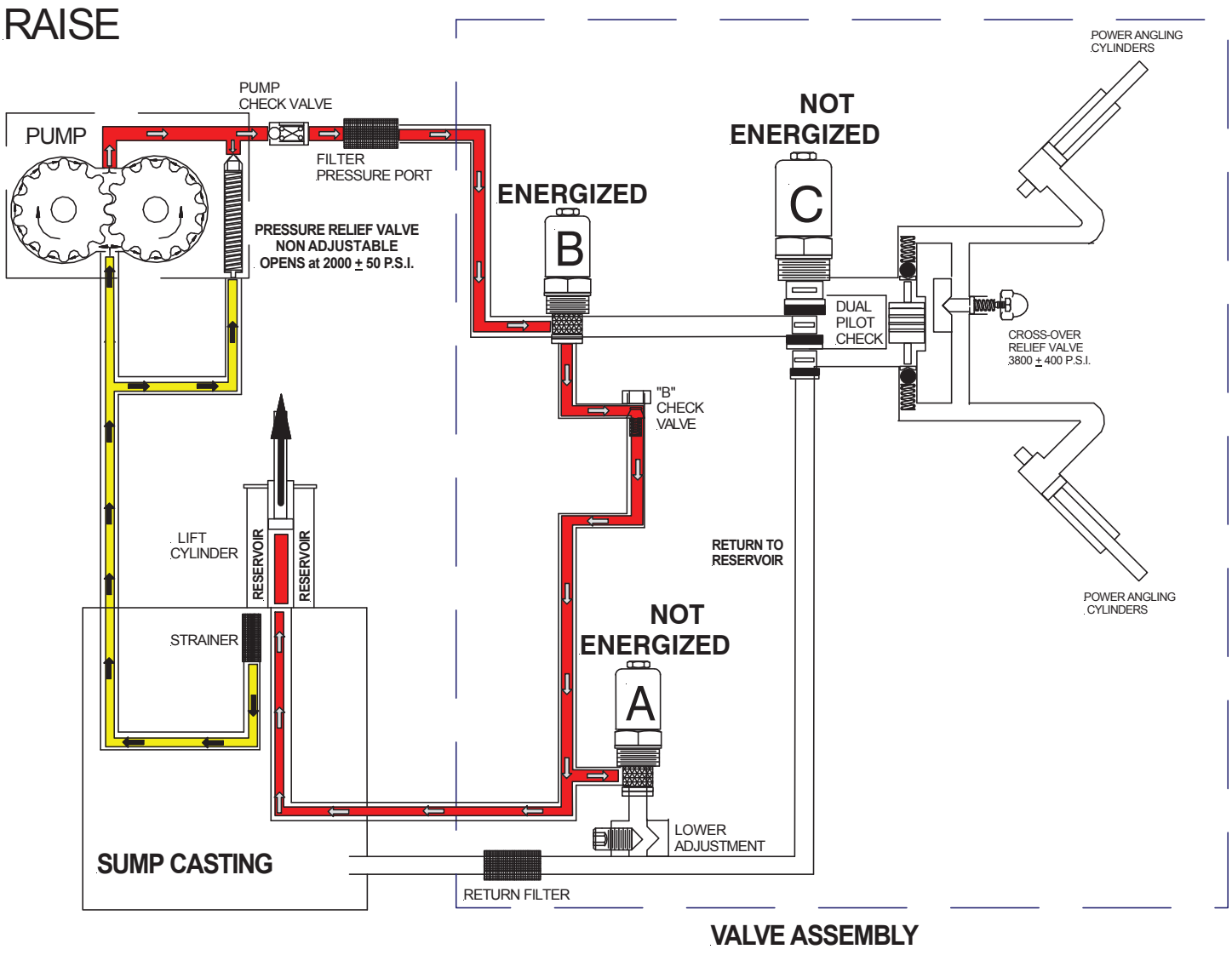


FIGURE 1-1

E-58H Lower, “A” Solenoid

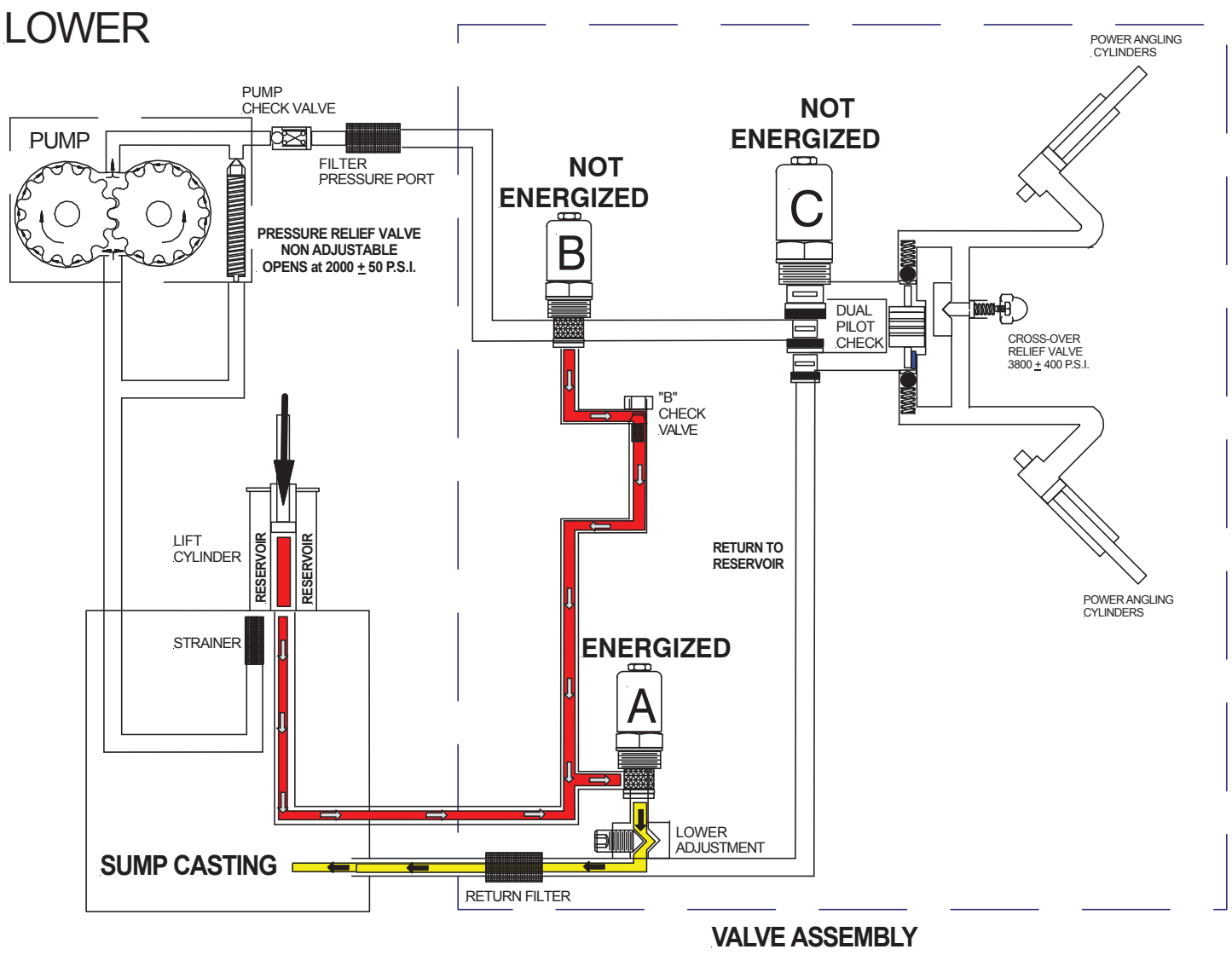


FIGURE 1-2

E-58H Angle Left, Motor only

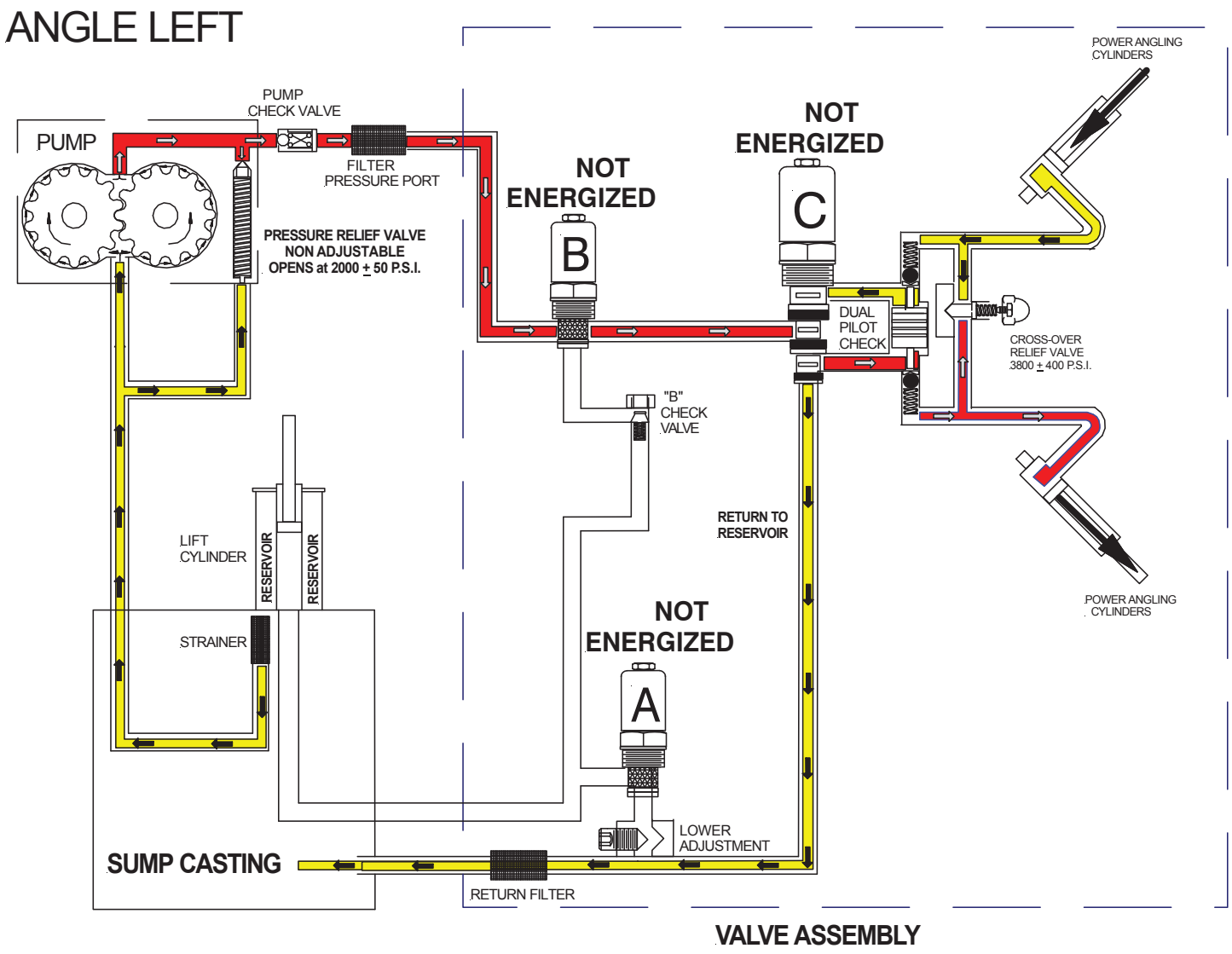


FIGURE 1-3

E-58H Angle Right, Motor and “C” Solenoid

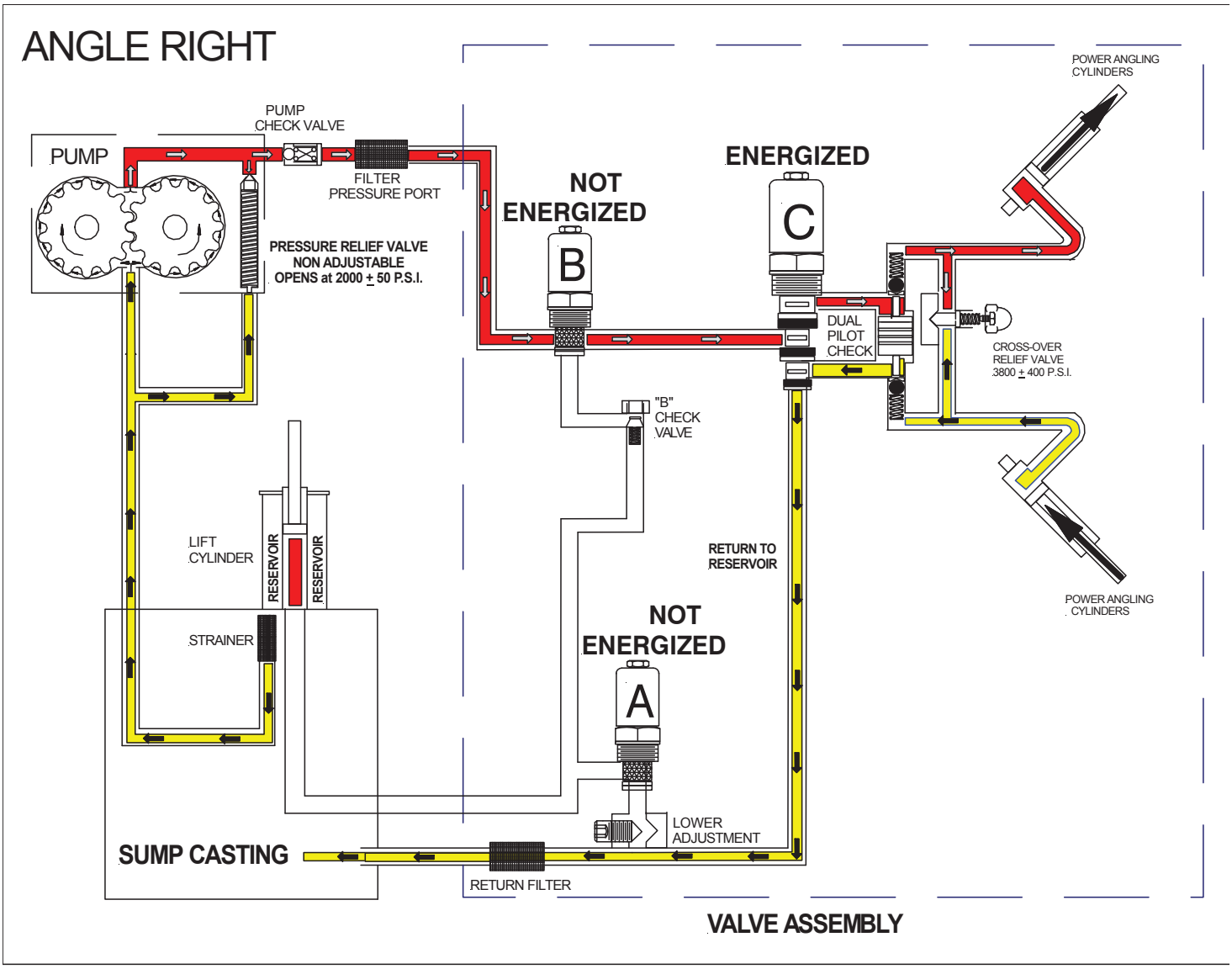


FIGURE 1-4

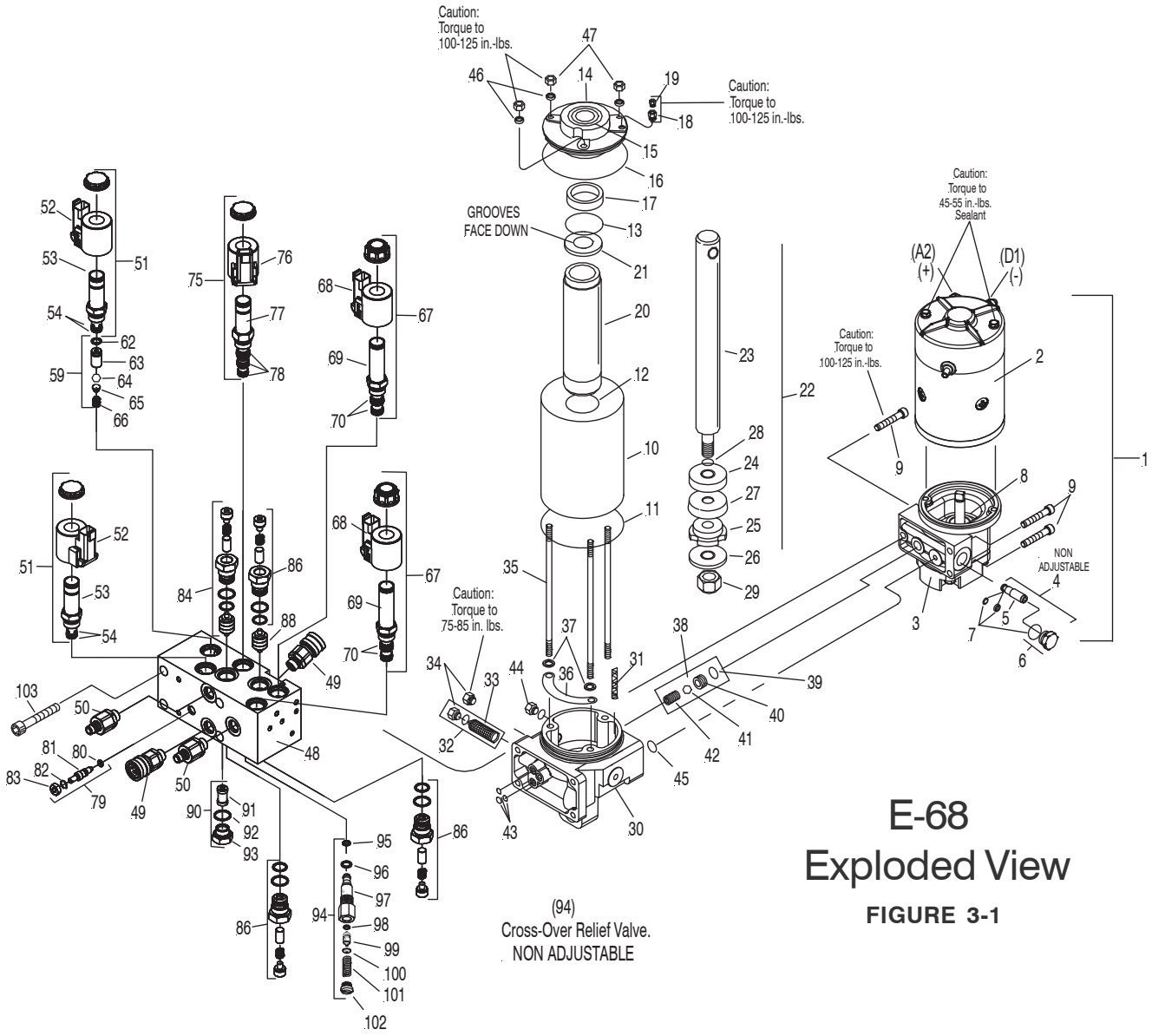
PARTS BREAKDOWN

ITEM	PART NO.	QTY	DESCRIPTION
1	15869	1	**Pump & Motor Assy. (12 volt)**
2	15727	1	• Motor - 12 Volt (2 Terminal)
3	15889	1	• Pump Assy.
4	15874	1	••Kit - Pump Relief Valve
5	15870	1	•• Relief Valve Assy.
6	15878	1	•• Plug w/O-Ring
7*	15875	1	Seal Kit Relief Valve
8	15877	1	Pump Shaft Seal
9	22339	3	Soc. Head 5/16-18 x 1-3/4"
10	15204	1	Cylinder Tank
11*	15131	1	O-Ring 3-1/2 I.D.
12*	15163	1	O-Ring 1-15/16 I.D.
13*	15198	1	O-Ring 1-1/8 I.D.
14	15738	1	**Cover & Seal Assy.**
15*	05119	1	• Wiper
16*	15131	1	• O-Ring 3-1/2 I.D.
17	15737	1	• Sleeve
	08473	1	**Pressure Relief Valve Kit**
18	21805	1	• Reducer Bushing 1/4 x 1/8
19	21806	1	• Pressure Relief Valve
20	15205	1	Cylinder
21	15209	1	Washer (Grooves Down)
22	15761	1	**Ram Assembly**
23	15206	1	• Ram
24	15158	1	• Piston
25	15219	1	• Piston Follower
26	15760	1	• Spacer
27*	15162	1	• Packing Cup
28*	15125	1	• O-Ring 7/16 I.D.
29	20316	1	• Locknut 1/2-13
30	15980	1	**Base & Strainer Assy.**
31	15326	1	• Strainer
32	15641	1	• **Filter Kit - 9/16"**
33	15619	1	•• Filter
34	21999	1	•• Plug w/O-Ring - 9/16"
35	15203	3	Stud
36	15621	1	Baffle
37	21980	2	Retainer Ring
38	15574	1	**Pump Check Valve Kit**
39*	15124	1	• O-Ring 3/8 I.D.
40	15354	1	• Seat
41	15603	1	• Ball, 9/32
42	15604	1	• Spring
43*	15122	3	O-Ring 1/4 I.D.
44	21999	2	**Drain Plug w/O-Ring - 9/16"**
45*	15127	1	O-Ring 5/8 I.D.
46*	21929	3	Washer, Nyltite 5/16
47	20697	3	Locknut 5/16 - 24

Parts indented are included in assembly under which they are indented.

*Parts included in Master Seal Kit Part No. 15978 (E-68)
Basic Seal Kit Part No. 15254
Pump Relief Valve @ 2000 ± 50 P.S.I. full flow. **Non Adjustable**
Crossover Relief Valve @ 3800 ± 400 P.S.I. @ 2-1/2 G.P.M. **Non Adjustable**

ITEM	PART NO.	QTY	DESCRIPTION
48	15941	1	• **Valve Assy. w/Coup. (12V)**
49	22445	2	• Coupler, Female Half
50	22442	2	• Coupler, Male Half
51	15925	1	**"A" Solenoid Assembly**
52	15916	1	•• Coil (12V)
53	15917	1	•• "A" Cartridge Valve
54	15928	1	••• Seal Kit, "A" Valve
55	15925	1	**"B" Solenoid Assembly**
56	15916	1	•• Coil (12V)
57	15917	1	•• "B" Cartridge Valve
58	15928	1	••• Seal Kit, "B" Valve
59	15959	1	• **Kit- "B" Check Valve**
60	---------	1	•• "B" Check Valve Nut
61	---------	1	•• O-ring
62	---------	1	•• O-ring
63	---------	1	•• "B" Valve Check Body
64	---------	1	•• "B" Valve Check Ball
65	---------	1	•• Ball holder
66	---------	1	•• Spring
67	15926	2	**"C" & "D" Solenoid Assembly**
68	15916	1	•• Coil (12V)
69	15918	1	•• "C" & "D" Cartridge Valve
70	15929	1	••• Seal Kit "C" & "D" Cartridge
75	15927	1	**"E" Solenoid Assembly**
76	15916	1	•• Coil (12V)
77	15919	1	•• "E" Cartridge Valve
78	15930	1	••• Seal Kit "E" Cartridge
79	15950	1	**Kit Needle Valve (Lower Adj.)**
80	---------	1	• O-ring
81	---------	1	• Needle Valve
82	---------	1	• Needle Valve Retaining Ring
83	---------	1	• Nut M6 x 1/2" nut
84	15965	2	• **Kit Dual PO Check Valve**
86	15944	2	•• Check Valve Assembly
88	15943	1	•• P.O. Pilot Spool
90	15951	1	**Kit P.A. Block Filter**
91	15936	1	• Tank Filter
92	15938	1	• O-ring
93	15937	1	• M16 x 1 Filter Cap
94	15974	1	• **Kit-Crossover Valve**
95	---------	1	•• O-ring
96	---------	1	•• O-ring
97	---------	1	•• Body
98	---------	1	•• O-ring w/Glyd. Ring
99	---------	1	•• Poppet
100	---------	1	•• Washer
101	---------	1	•• Spring
102	---------	1	•• Plug
103	21826	4	Soc. Head 5/16-18 x 1-1/2"



E-68
Exploded View

FIGURE 3-1

E-68 Mount, Motor Only

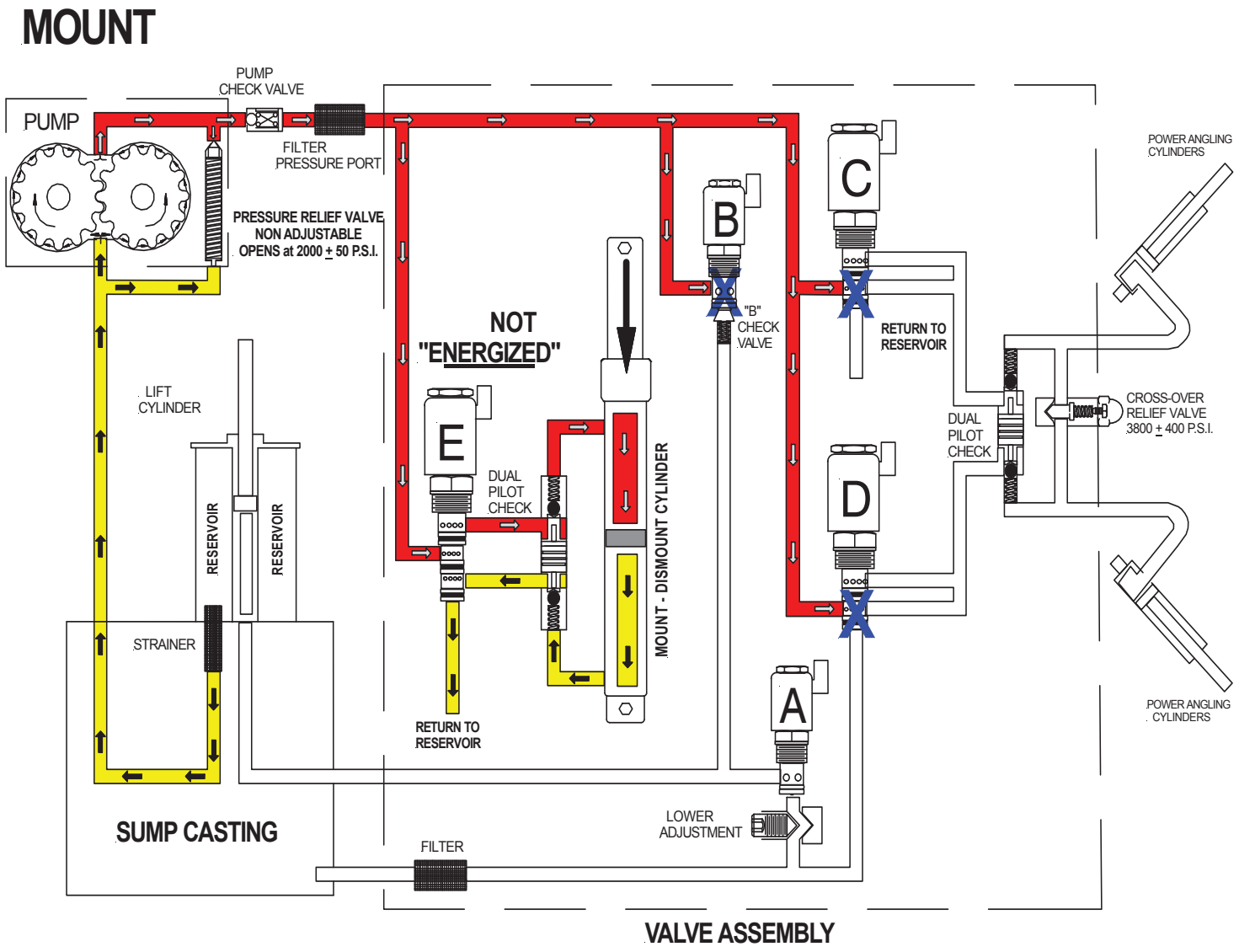


FIGURE 1-1

E-68 Dismount, Motor and “E” Solenoid

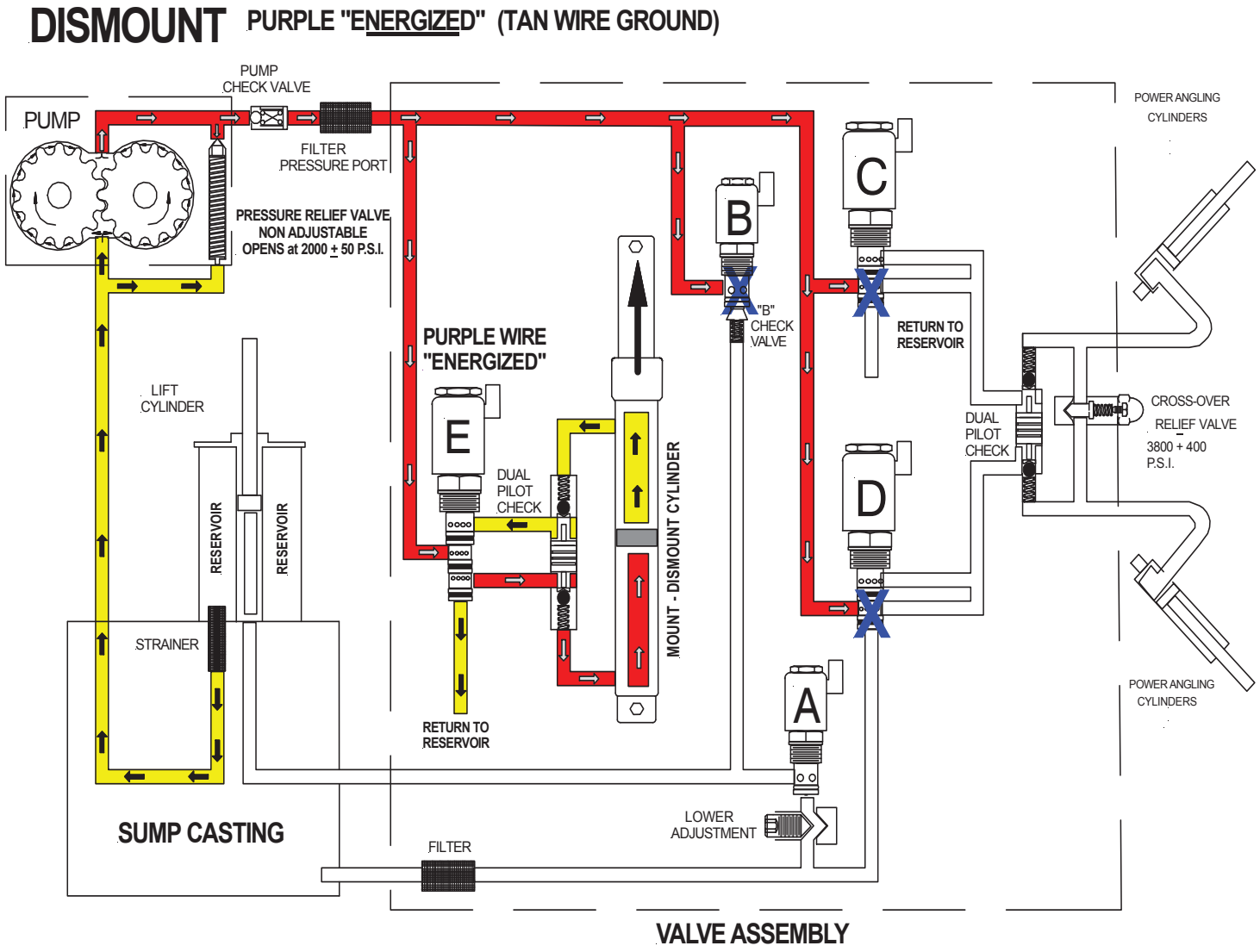


FIGURE 1-2

E-68 Raise, Motor and “B” Solenoid

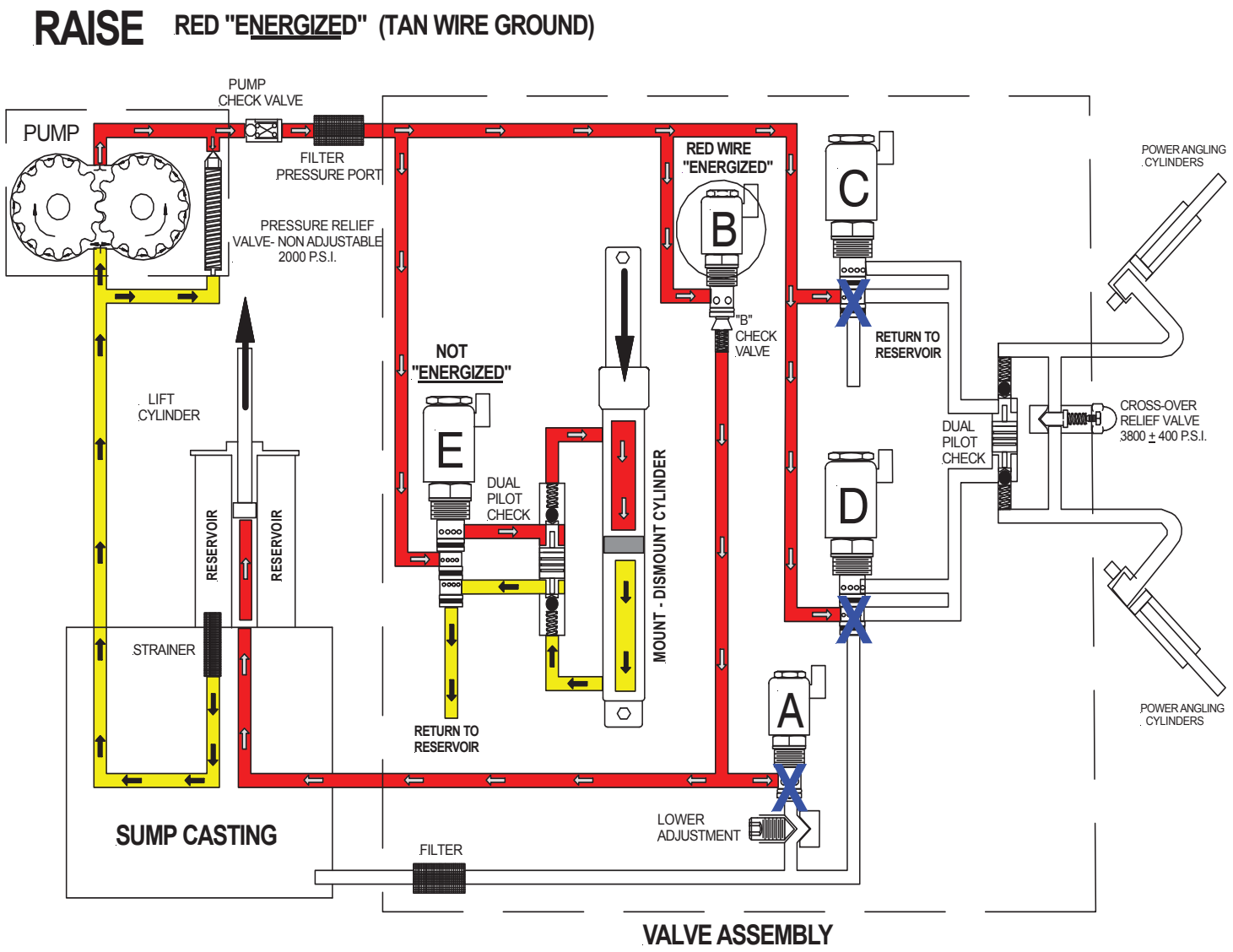


FIGURE 1- 3

E-68 Lower, “A” Solenoid

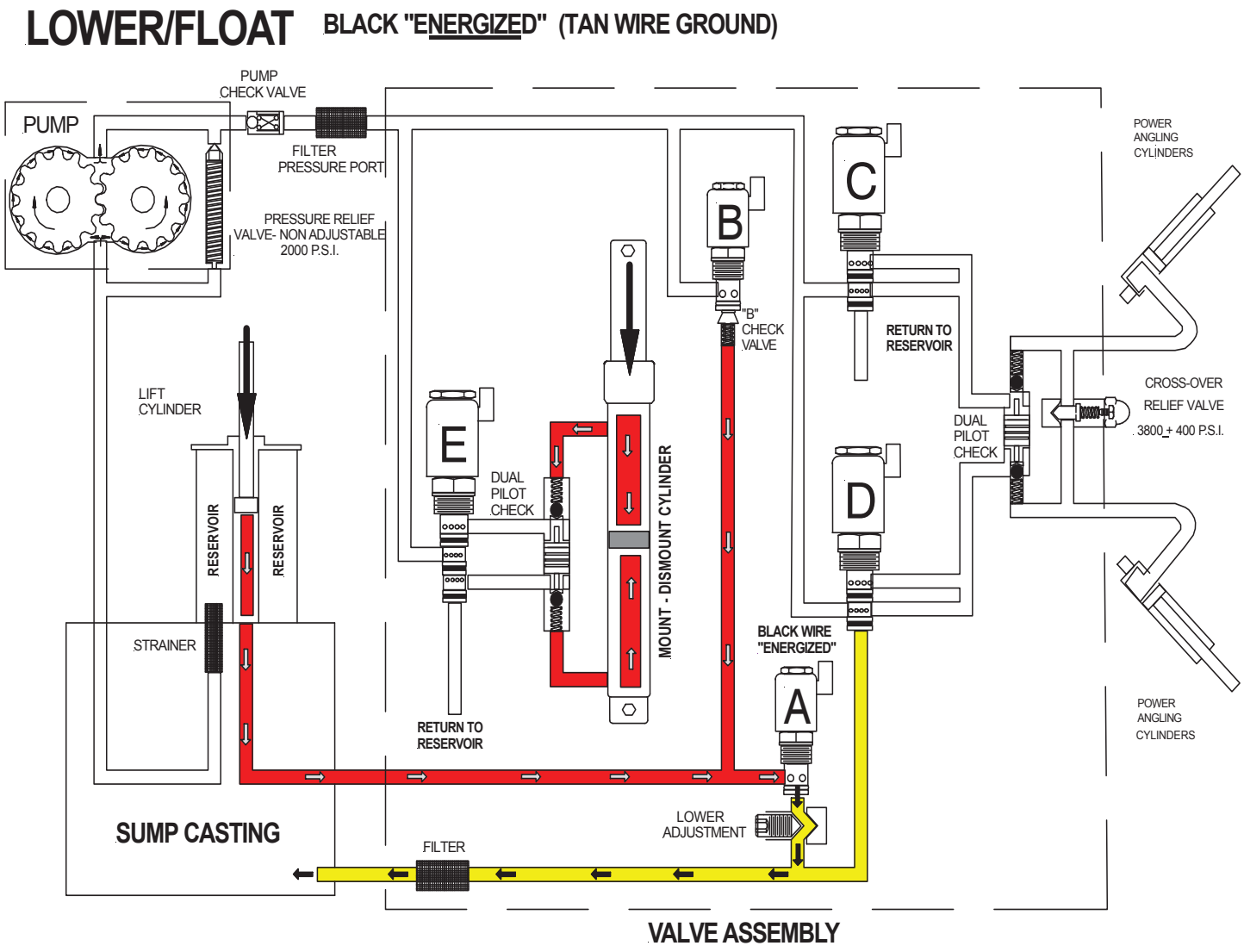


FIGURE 1-4

E-68 Angle Left, Motor and “D” Solenoid

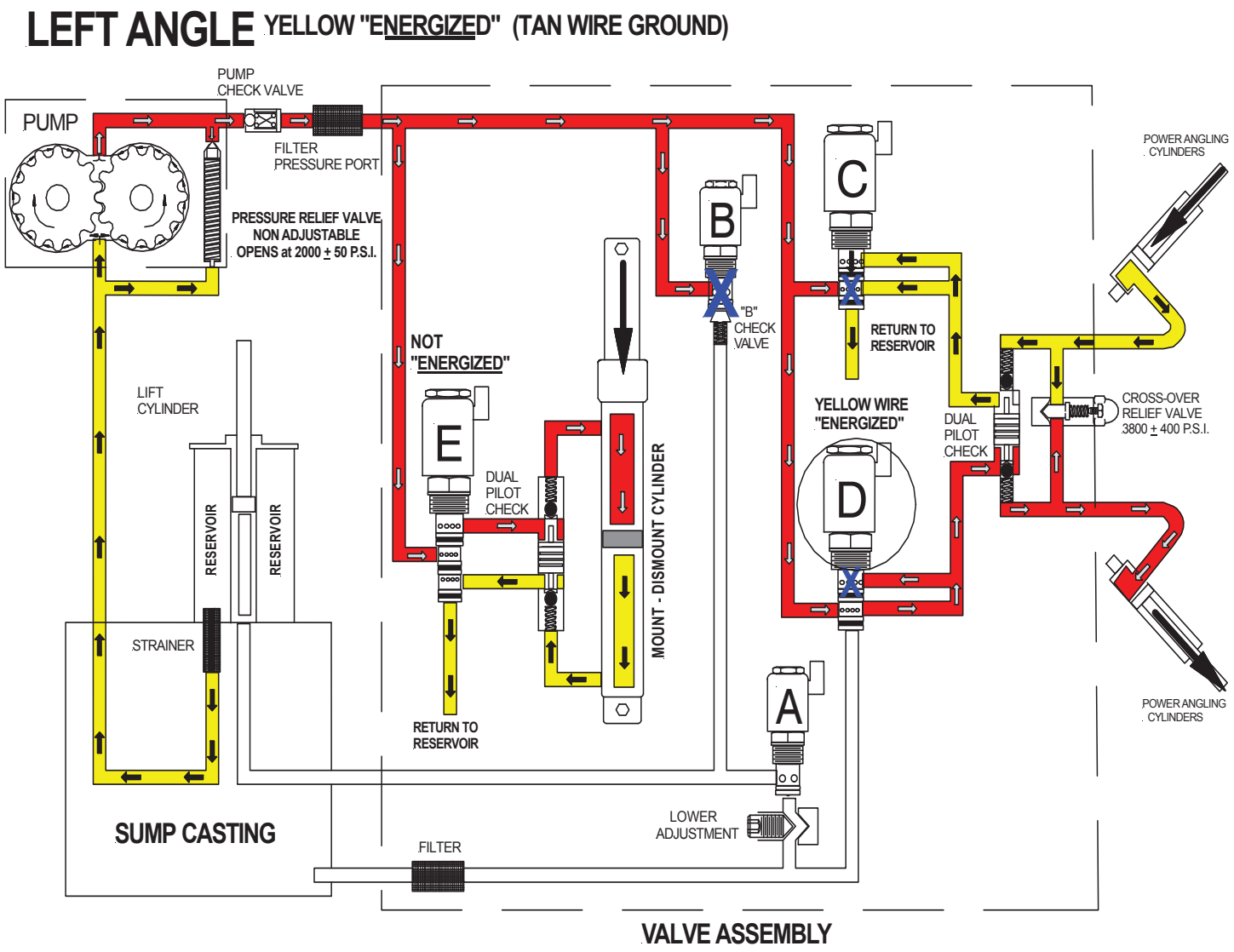


FIGURE 1-5

E-68 Angle Right, Motor and “C” Solenoid

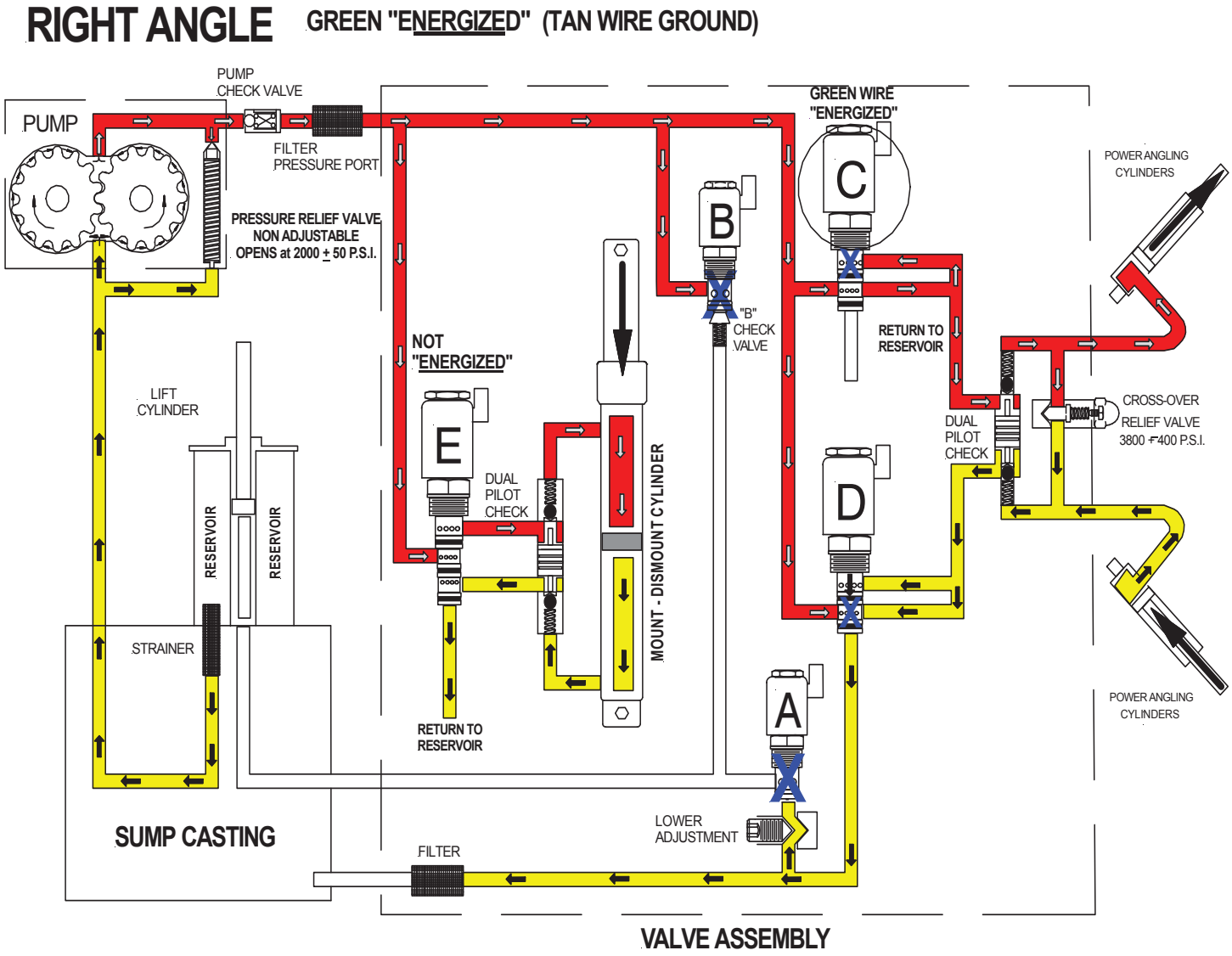


FIGURE 1-6

PARTS & INSTALLATION INSTRUCTIONS
V-70 ELECTRO-LIFT® UNIT

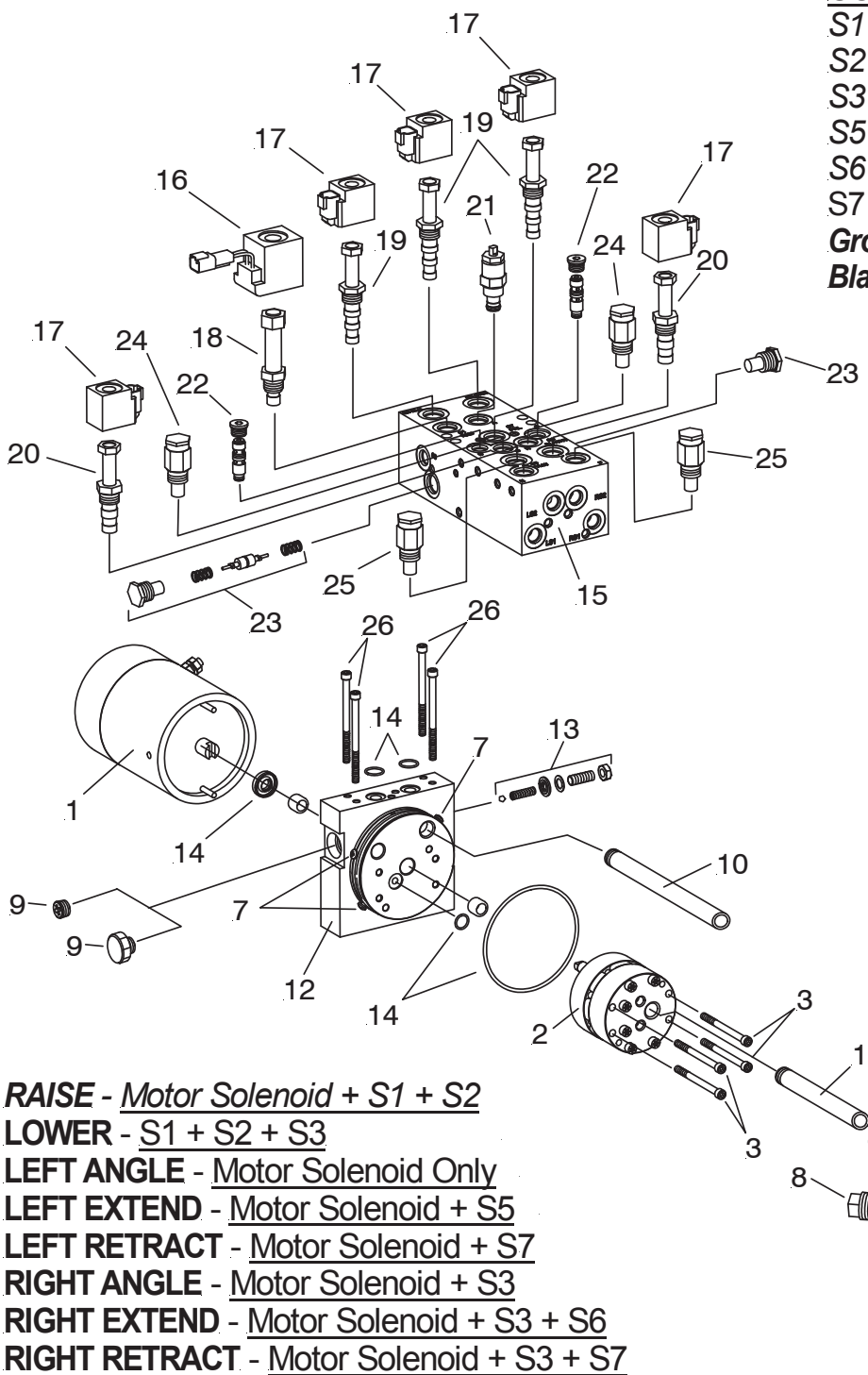
Parts List

ITEM	V-70 12V	V-70 24V	QTY	DESCRIPTION
	15092	15091	1	**Lift Assembly (Unit Only)**
1	15096	15154	1	• Motor - (2 Terminal)
2	15097	15097	1	• Pump Assembly
3	15083	15083	4	• Allen Head Screw 1/4-20 x 3"
4	15101	15101	1	• Pump Filter Assy.
5	15103	15103	1	• Reservoir
6	15104	15104	1	• Drain Plug
7	15106	15106	5	• Self Tapping Screw 12-24 x 3/8"
8	15108	15108	1	• Fill Plug 3/4-14 NPT
9	15107	15107	1	• Reservoir Breather Steel s/n 0030015088 & earlier
9	15067	15067	1	• Reservoir Breather Plastic s/n 0030115088 & later
10	15099	15099	1	• Oil Tube
11	15100	15100	1	• Oil Tube
12	15095	15095	1	• Base Assembly
13	15121	15121	1	• Adjustable Relief Valve
14	15082	15082	1	• Seal Kit (All Seals)
15	15105	15155	1	• Valve Assembly
16	15079	15156	1	•• Coil "S1"
17	15118	15157	5	•• Coil "S2", "S3","S5", "S6" & "S7"
18	15112	15112	1	•• "S1" Cartridge Valve
19	15111	15111	3	•• "S2", "S3", "S7" Cartridge Valve
20	15117	15117	2	•• "S5" & "S6" Cartridge Valve
21	15113	15113	1	•• Kit Needle Valve (Lower Adj.)
22	15129	15129	1	•• Kit Dual PO Check Valve
23	15128	15128	1	•• Kit Check Valve Assembly
24	15115	15115	2	•• Kit Relief Valve Assy. 3000 p.s.i.
25	15116	15116	2	•• Kit Relief Valve Assy. 2900 p.s.i.
26	15098	15098	4	• Allen Head Screw 1/4-20 x 3-1/2"

Parts indented are included in assembly under which they are indented.

V-70 Exploded View

FIGURE 3-1



COIL COLOR CODE

S1 - Red wire
S2 - Black wire
S3 - Green wire
S5 - Yellow wire
S6 - Blue w/White stripe
S7 - Purple wire
Ground Wire each Coil
Black w/white stripe

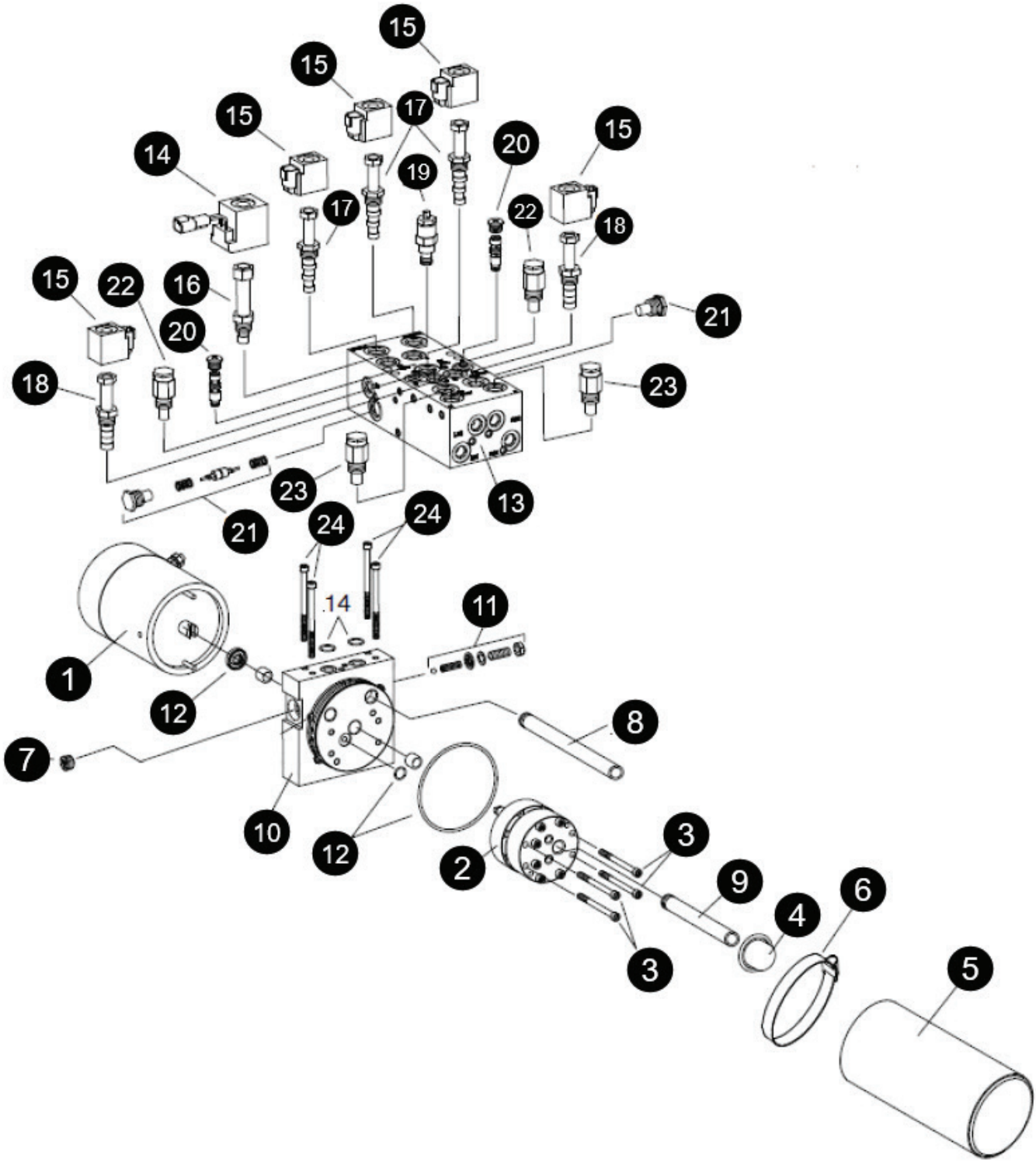
RAISE - *Motor Solenoid + S1 + S2*
LOWER - S1 + S2 + S3
LEFT ANGLE - Motor Solenoid Only
LEFT EXTEND - Motor Solenoid + S5
LEFT RETRACT - Motor Solenoid + S7
RIGHT ANGLE - Motor Solenoid + S3
RIGHT EXTEND - Motor Solenoid + S3 + S6
RIGHT RETRACT - Motor Solenoid + S3 + S7
SCOOP - Motor Solenoid + S2 + S3 + S5 + S6 + S7
VEE - Motor Solenoid + S2 + S3 +S7

PARTS & INSTALLATION INSTRUCTIONS
V-70H ELECTRO-LIFT® UNIT

ITEM	PART	QTY	DESCRIPTION
	16031	1	Lift Assembly (Unit Only)
1	15096	1	• Motor - (2 Terminal)
2	15097	1	• Pump Assembly
3	15083	4	• Allen Head Screw 1/4-20 x 3"
4	15101	1	• Pump Filter Assy.
5	15235	1	• Reservoir
6	15066	1	• Reservoir Clamp
7	15067	1	• Reservoir Breather Plastic
8	15099	1	• Oil Tube
9	15236	1	• Oil Tube
10	15095	1	• Base Assembly
11	15121	1	• Adjustable Relief Valve
12	15082	1	• Seal Kit (All Seals)
13	15105	1	• Valve Assembly
14	15233	1	•• Coil "S1"
15	15215	5	•• Coil "S2", "S3","S5", "S6" & "S7"
16	15112	1	•• "S1" Cartridge Valve
17	15111	3	•• "S2", "S3", "S7" Cartridge Valve
18	15117	2	•• "S5" & "S6" Cartridge Valve
19	15113	1	•• Kit Needle Valve (Lower Adj.)
20	15129	1	•• Kit Dual PO Check Valve
21	15128	1	•• Kit Check Valve Assembly
22	15115	2	•• Kit Relief Valve Assy. 3000 p.s.i.
23	15116	2	•• Kit Relief Valve Assy. 2900 p.s.i.
24	15098	4	• Allen Head Screw 1/4-20 x 3-1/2"

Parts indented are included in assembly under which they are indented.

V- 70H PARTS BREAKDOWN



RAISE = Motor Solenoid + S1 + S2
LOWER = S1 + S2 + S3
LEFT ANGLE = Motor Solenoid Only
LEFT EXTEND = Motor Solenoid + S5
LEFT RETRACT = Motor Solenoid + S7
RIGHT ANGLE = Motor Solenoid + S3
RIGHT EXTEND = Motor Solenoid + S3 + S6
RIGHT EXTRACT = Motor Solenoid + S3 + S7
SCOOP = Motor Solenoid + S2 + S3 + S5 + S6 + S7
VEE = Motor Solenoid + S2 + S3 + S7

COIL COLOR CODE
S1 - Red Wire
S2 - Black Wire
S3 - Green Wire
S5 - Yellow Wire
S6 - Blue with White Stripe Wire
S7 - Purple Wire
Ground Wire for each coil is Black with White Stripe.

GENERAL INFORMATION

Before the Meyer Electro-Lift® unit is disassembled for repairs, make certain that all the maintenance procedures have been checked; refer to Owner's Manual. When the unit is to be overhauled, Seal Kit Part No. 15082 is required. This Kit contains all necessary Seals for rebuilding.

These instructions are intended as a guideline for overhaul of an V-70H Electro-Lift® unit.

When ordering parts, furnish Type of Unit, Part No., Name and Description.

More detailed information covering principles of Operation, Troubleshooting, Disassembly and Repair are found in the V-70H Electro-Lift® Service Manual. This is available for a nominal fee from your Meyer Distributor.

DISASSEMBLY AND INSPECTION OF UNIT

NOTE: DO NOT REUSE OLD O-RINGS.

Drain fluid from the unit by removing Fill Plug (7) and Reservoir Clamp (6). Clamp V-70H unit firmly into vise.

1. Remove Cover.
2. Remove the hydraulic side harness from the hydraulic unit. Note the positioning of the colored wires on the solenoid coil plugs to the coils on the hydraulic unit. The block is engraved with colors.
3. Remove hose from Valve Block and Lift Ram.
4. To disassemble MOTOR (1) from Base Plate, loosen Motor mounting bolts.
5. To disassemble VALVE BLOCK ASSEMBLY (13) from BASE ASSEMBLY (10), remove Allen Head Screws (24).
6. To disassemble BASE ASSEMBLY (10) from RESERVOIR (5). Loosen RESERVOIR CLAMP (6) and pry RESERVOIR (5) from BASE ASSEMBLY (10).

SUBASSEMBLIES - INSPECTION

1. BASE ASSEMBLY (10) & RESERVOIR (5)
   a) Check Base Assembly (10) for cracks and damage.
   b) Remove and inspect/replace Adjustable Relief Valve (11) (Set to 2000 P.S.I.)
   c) Check Reservoir (5) for cracks and damage.
2. MOTOR - Two Terminal (1)

   Note: Complete Motor Assemblies are only available from Meyer Products. The only service part available is the Brush Kit 15854.
3. PUMP (2)

   DO NOT at any time disassemble this Pump. This will void the warranty.
   a) Inspect shaft of Pump Assembly. (2)
   b) Clean Pump Filter Assy. (4)
4. VALVE ASSEMBLY (13)
   a) Clean "S1" Catridge (16) and inspect for damage.
   b) Clean "S2", "S3" & "S7" Valve Catridge (17) and inspect for damage.
   c) Clean "S5 & S6" (18) Catridge and inspect for damage.
   d) Test all Coils for electrical continuity. Nominal Coil resistance is 8.3 ohms.
   e) Remove Pilot Check Valves (20) and Piston Assemblies (21) from Valve Block and inspect the Piston for scratches.
   f) Remove Relief Valve (22 & 23) and inspect for damage.
   g) Remove Needle Valve (19) and inspect for damage.
   h) With parts removed from Valve Block, clean and blow out with air to remove any foreign particles in Block.
5. UNIT REASSEMBLY
   a) Before reassembling, make certain all components and sub-assemblies are clean and free from all dirt and other foreign material. Lubricate all orings with M-1 oil during assembly. Coat all bolt threads with a anti-sieze lubricant prior to reassembly.
   b) Motor mounting bolts must be sealed with Permatex or an all weather type sealant.
   c) USE NEW SEALS AND M-1 FLUID WHEN REASSEMBLING THE UNIT.
   d) Proper fluid level is just below the neck of the filler hole. It must be checked with Lift Ram fully retracted.

IMPORTANT: All Hydraulic Rams should be stored with a light coat of grease on chrome ram in the off season to prevent rust.

V-70 Raise: Motor, “S1” and “S2”

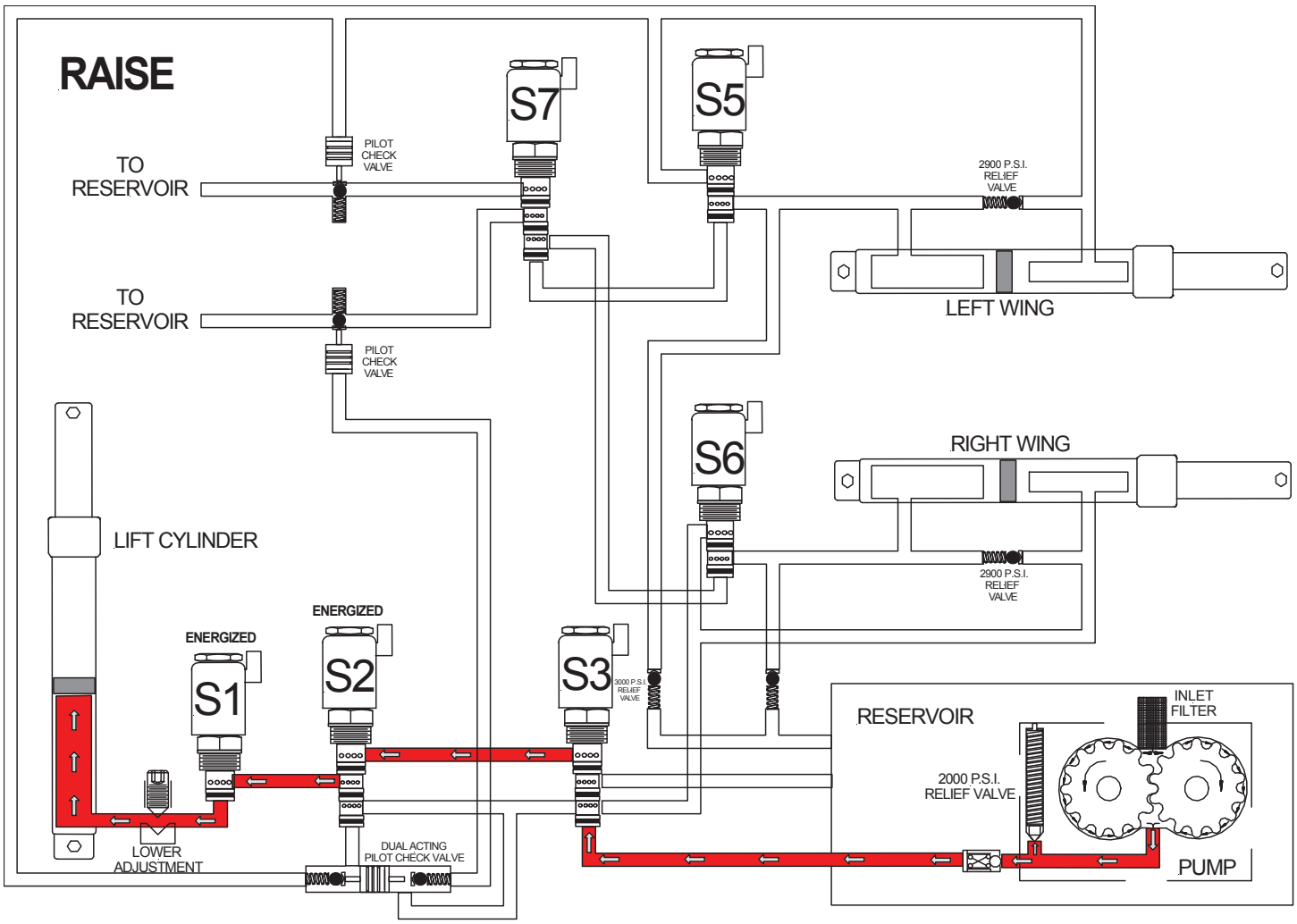


FIGURE 1-1

V-70 Lower: “S1”, “S2” and “S3”

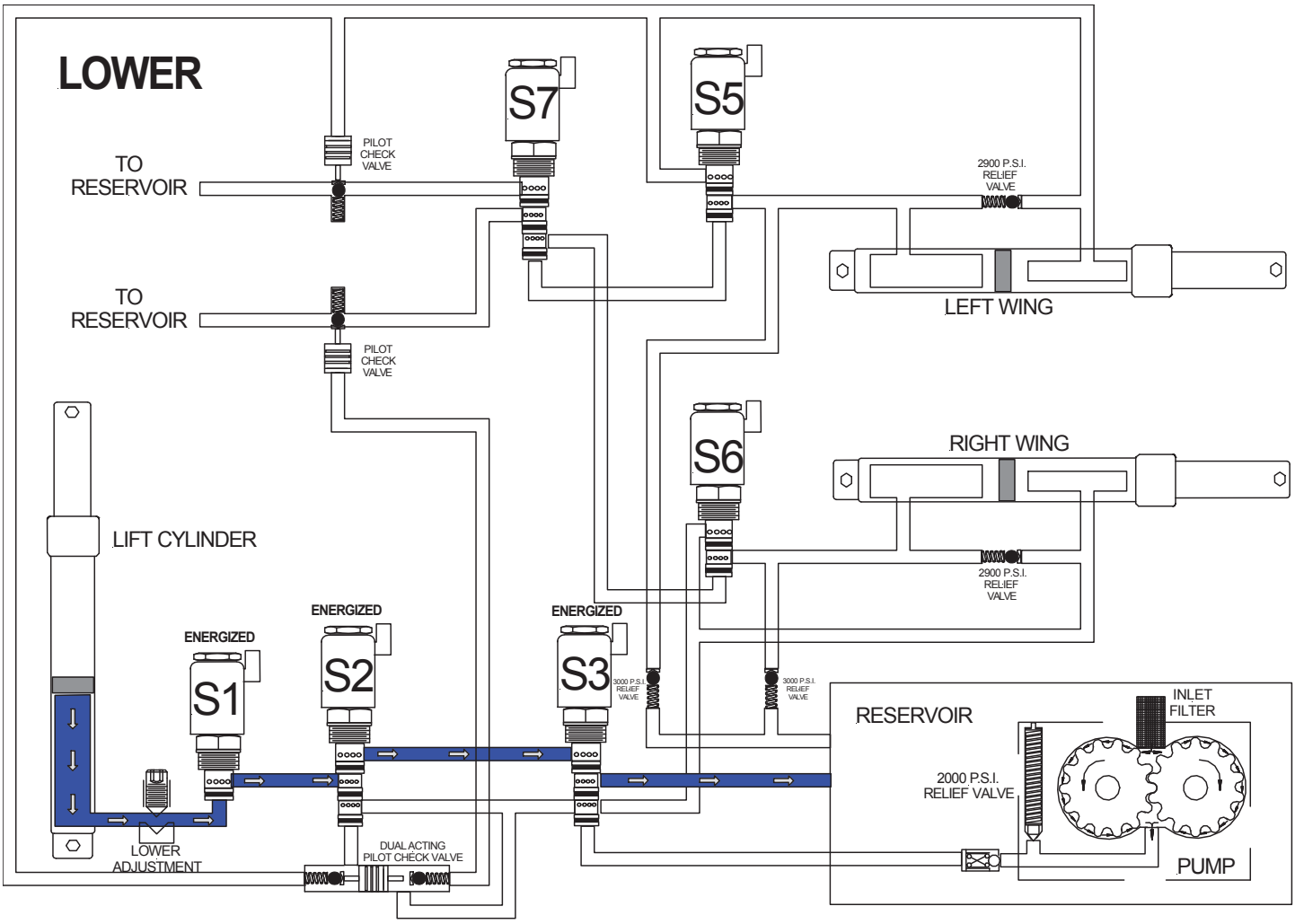


FIGURE 1-2

V-70 Angle Left: Motor Only

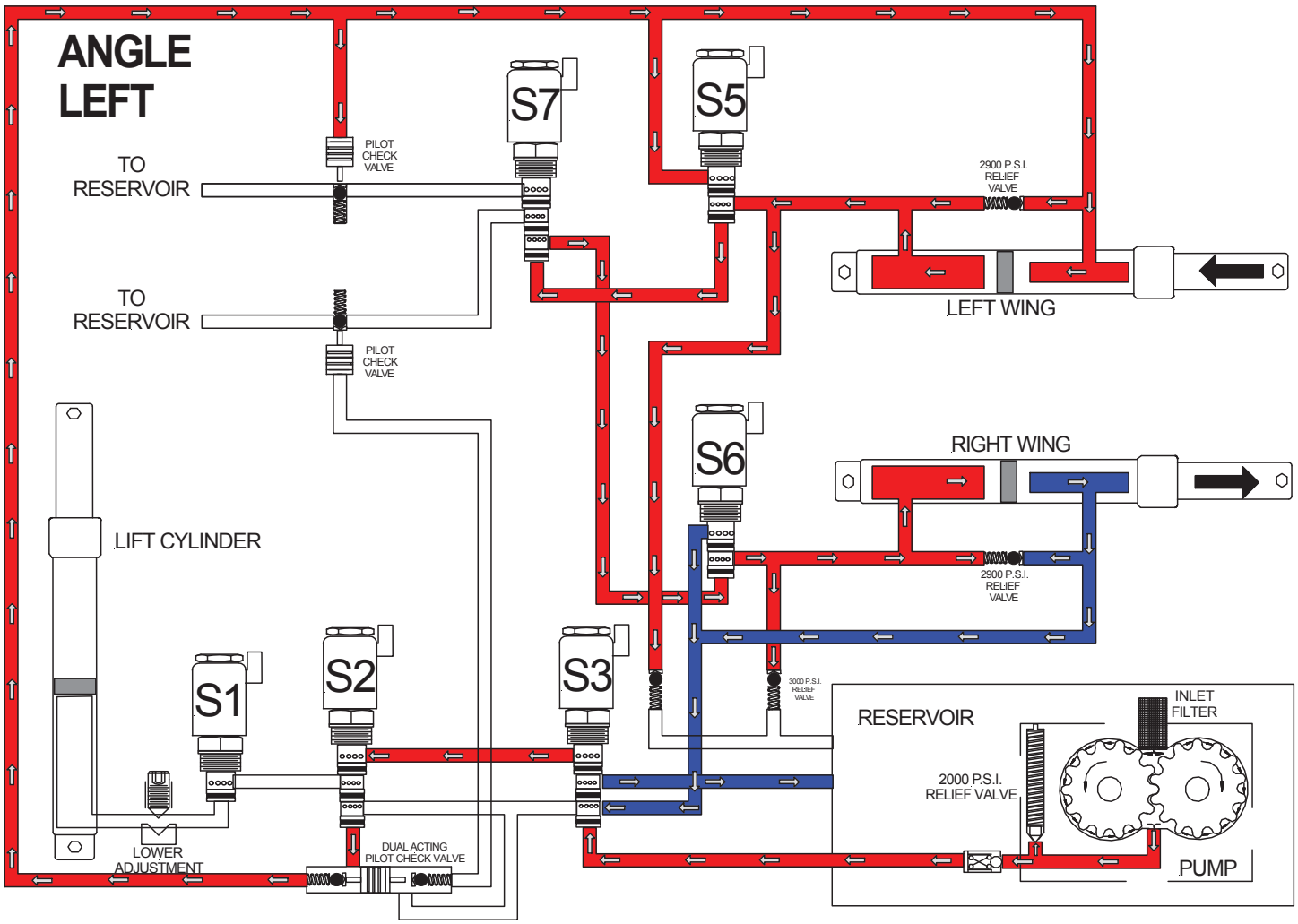


FIGURE 1-3

V-70 Angle Right: Motor and “S3”

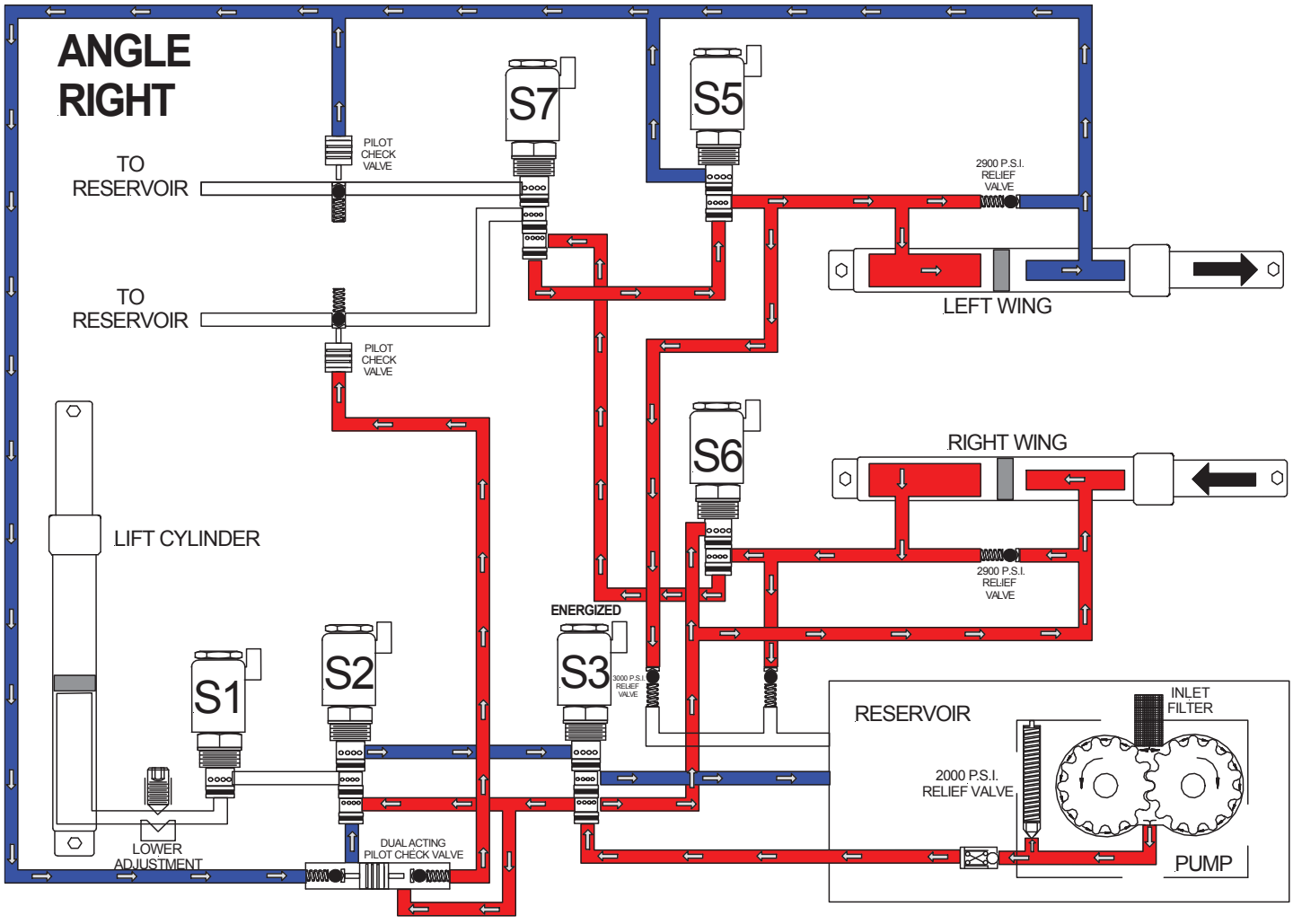


FIGURE 1-4

V-70 Left Extend: Motor and “S5”

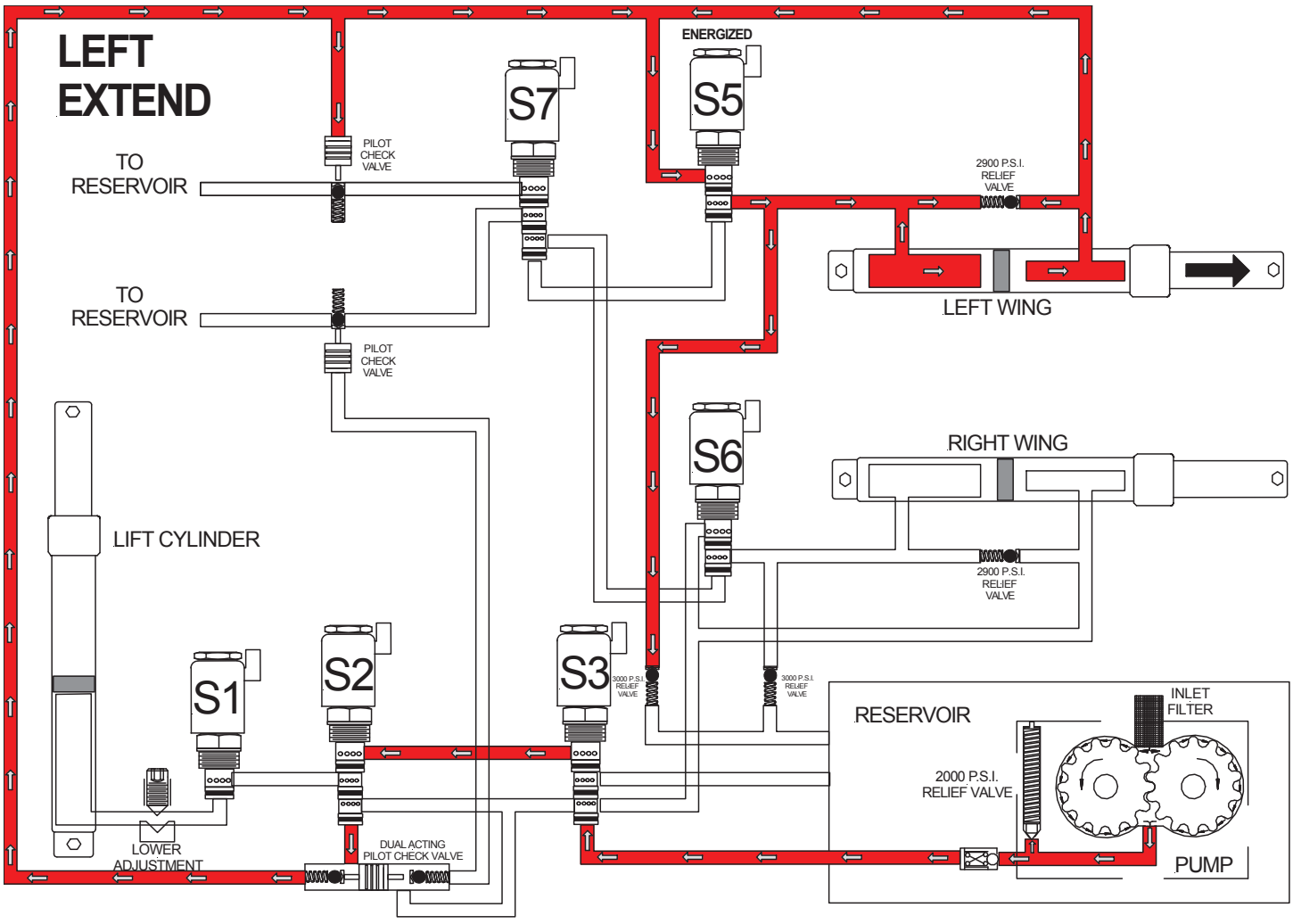


FIGURE 1-5

V-70 Left Retract: Motor and “S7”

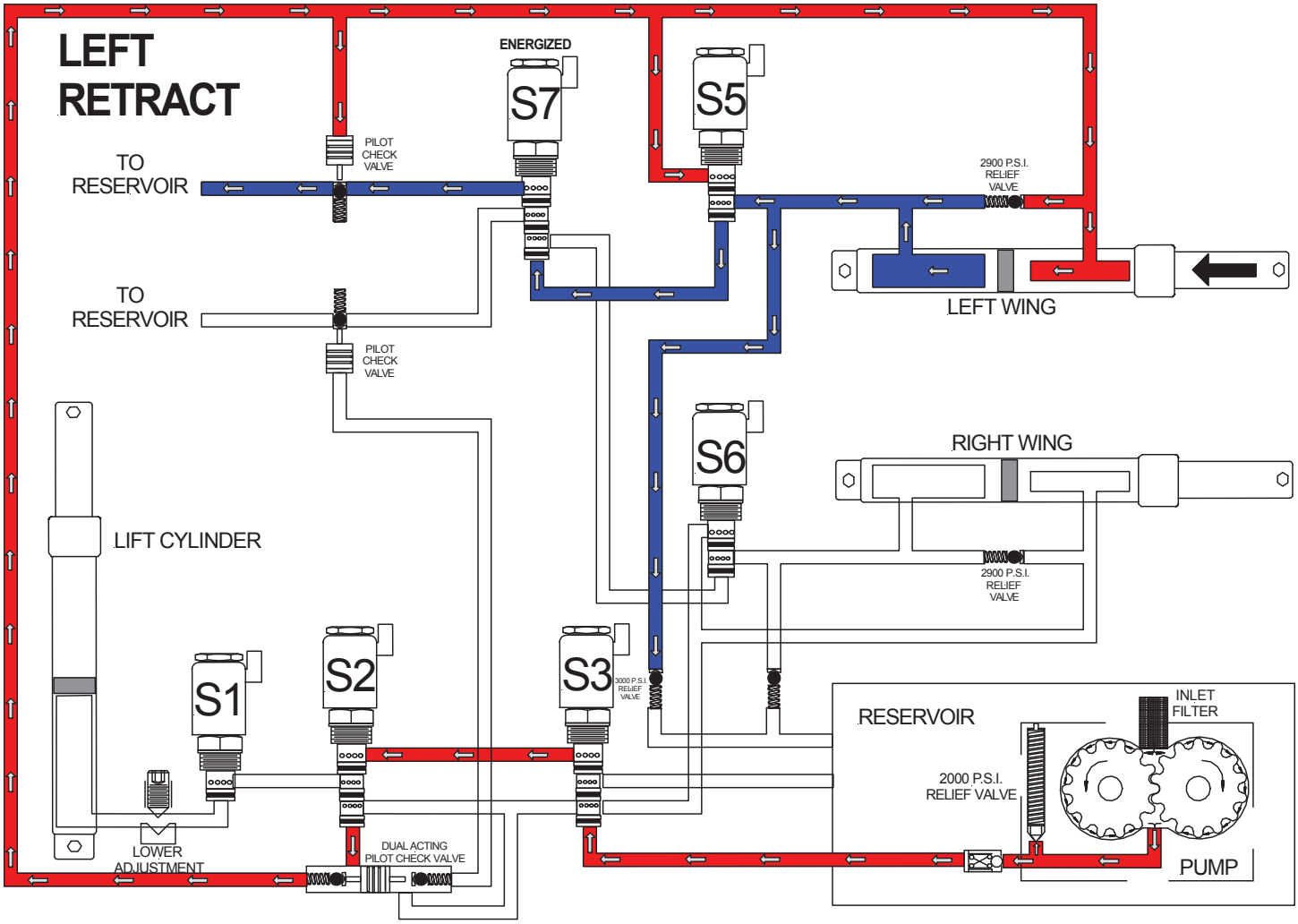


FIGURE 1-6

V-70 Right Extend: Motor, “S3” and “S6”

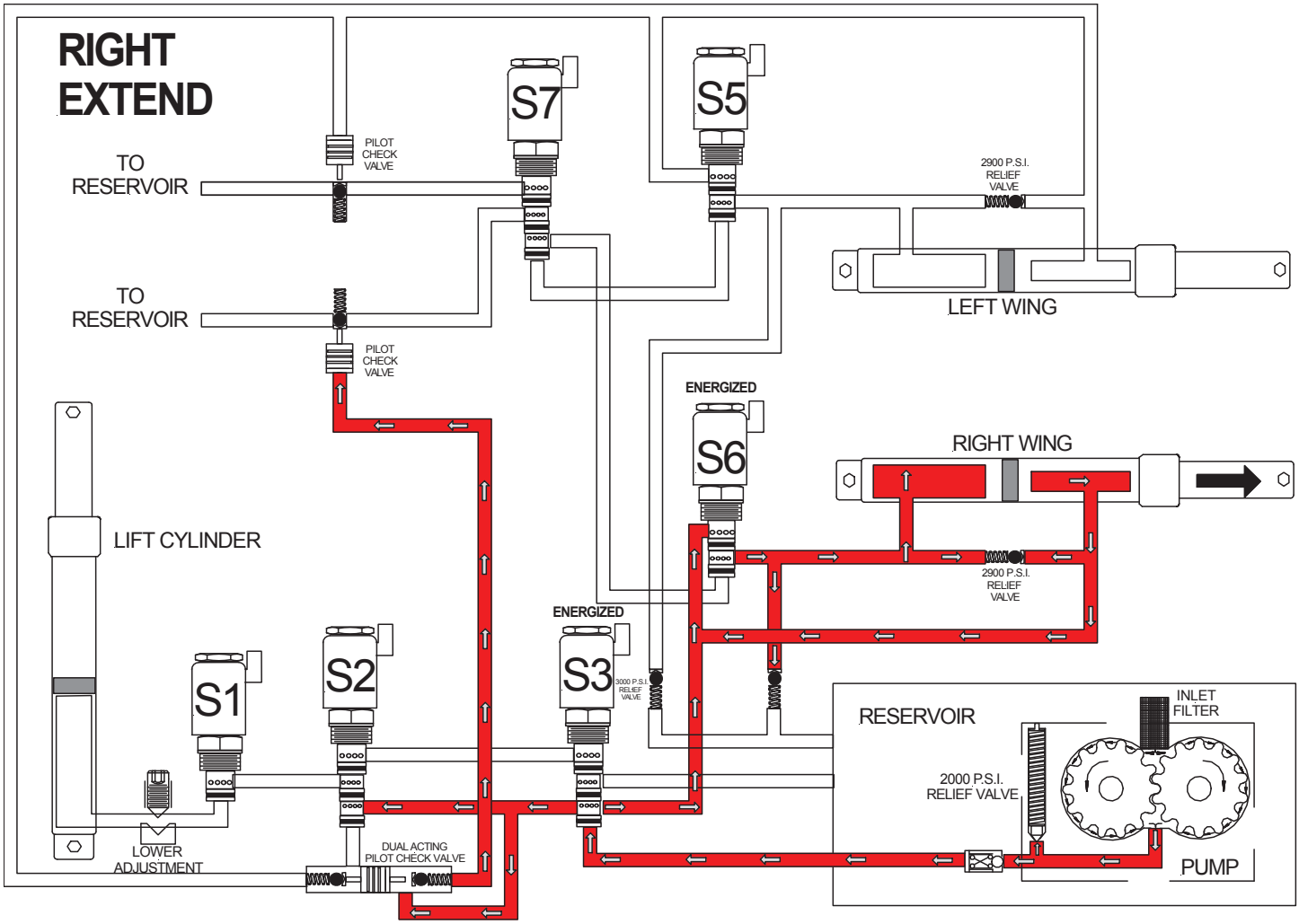


FIGURE 1-7

V-70 Right Retract: Motor, “S3” and “S7”

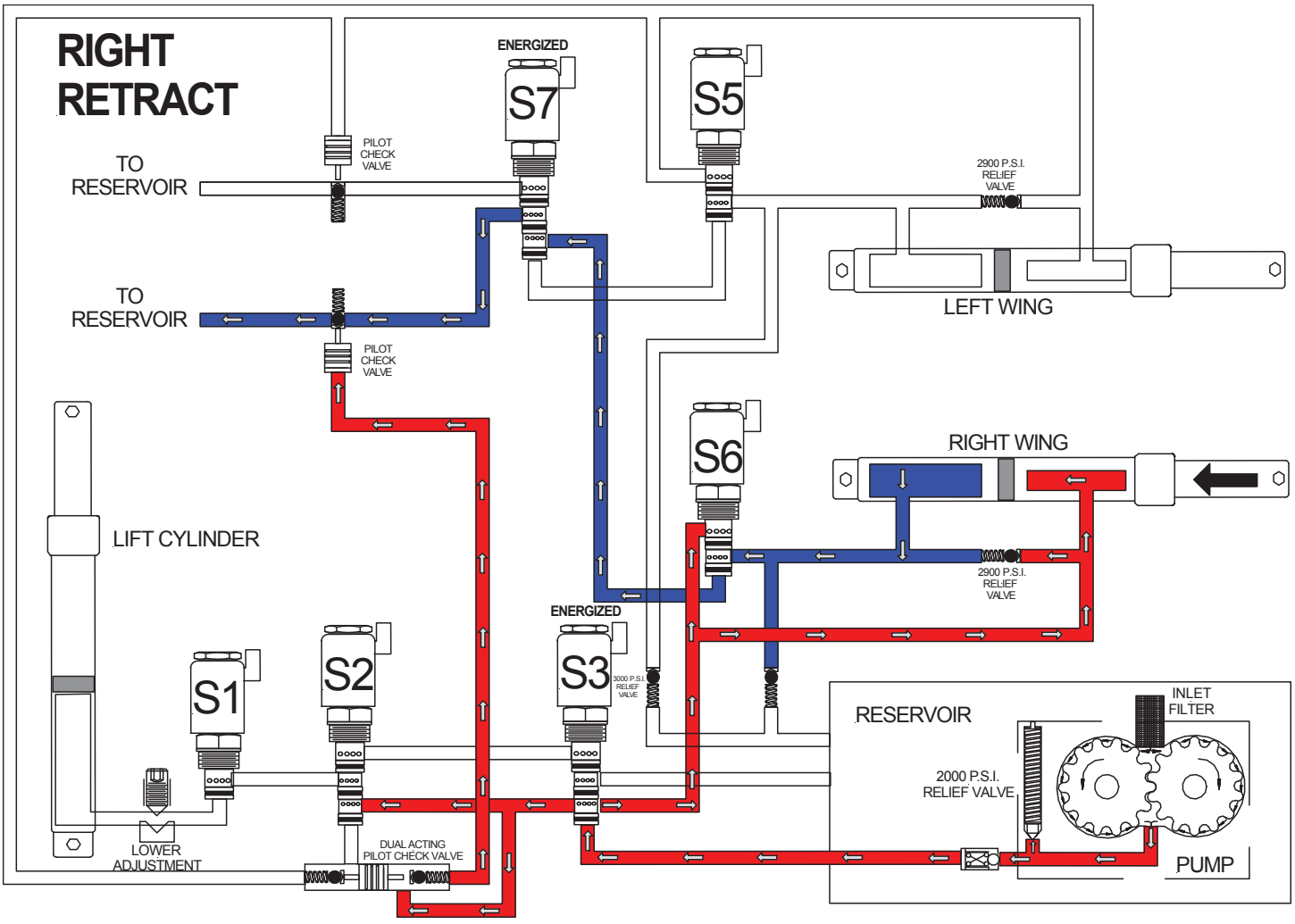


FIGURE 1-8

V-70 Scoop: Motor, “S2”, “S3”, “S5”, “S6” and “S7”

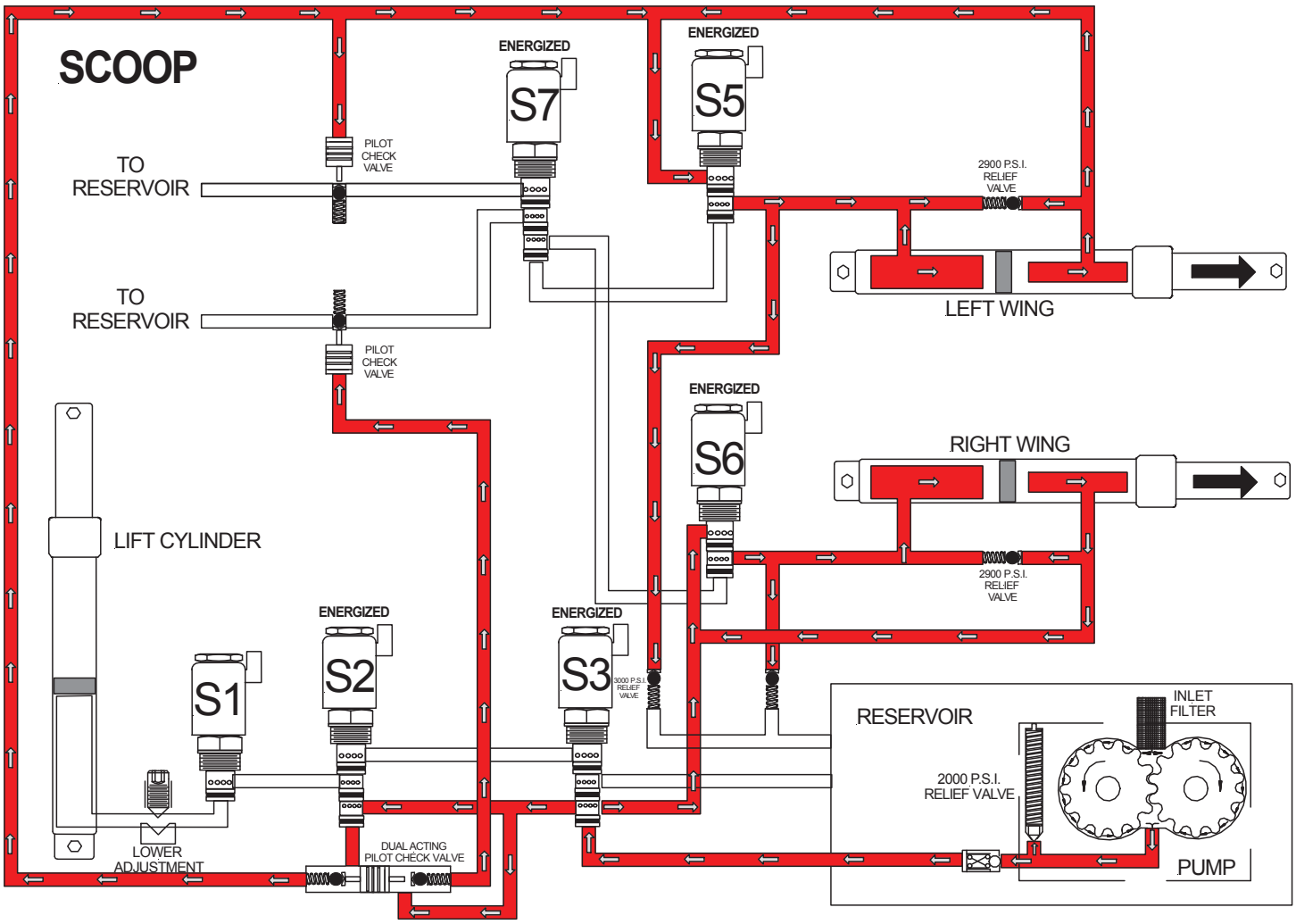


FIGURE 1-9

V-70 VEE: Motor, “S2”, “S3” and “S7”

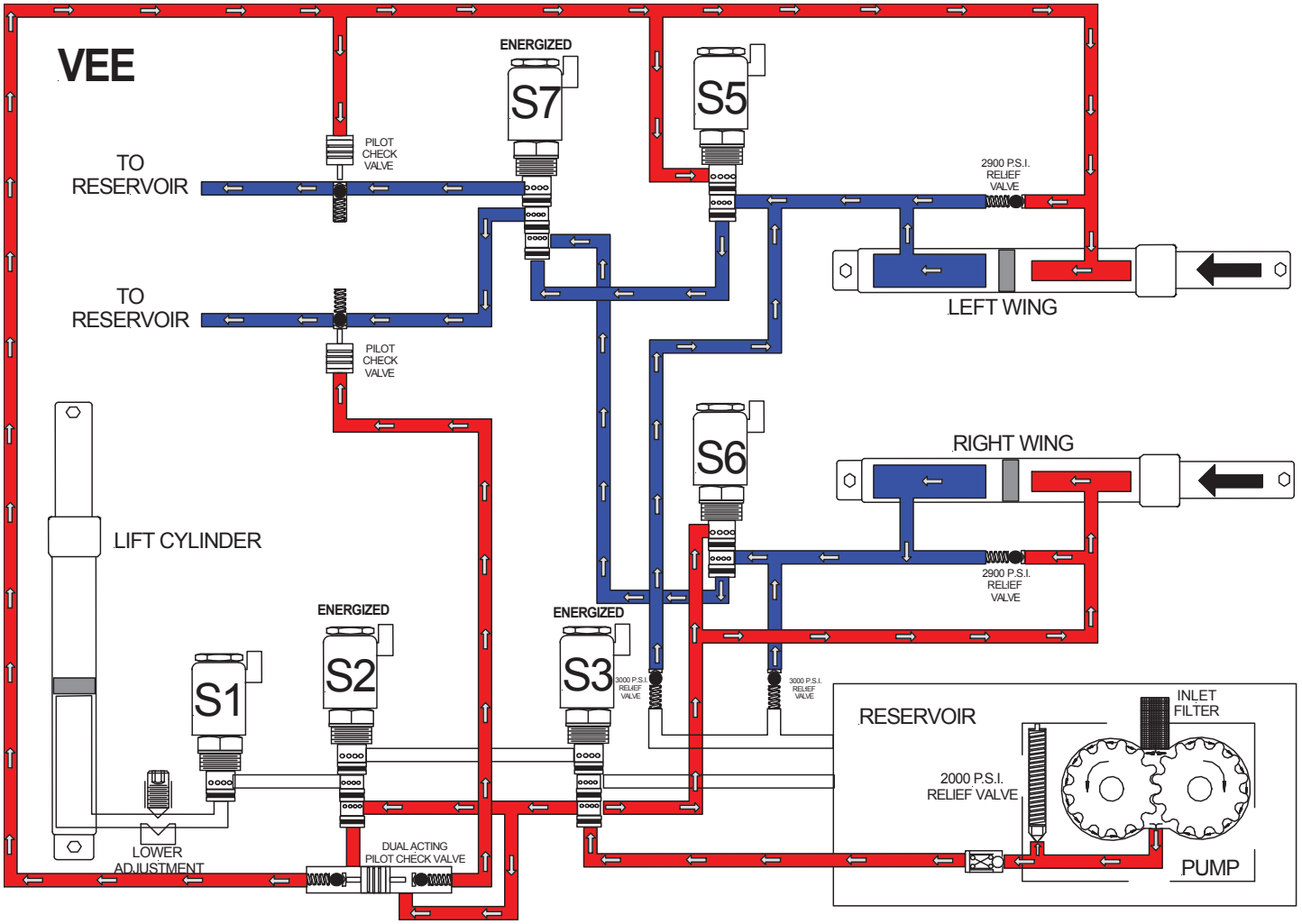


FIGURE 1-10

DIAGNOSTIC FLOW CHART FOR V-70 Unit

These charts are intended to be used as an aid in diagnosing problems on the V-68 unit. They are not a substitute for factory training and experience. Be certain to read the General Information and Testing Tips sections before attempting any troubleshooting.

IMPORTANT: Maintenance and repairs must be performed with the moldboard on the ground.

General Information

Before any troubleshooting is started, make certain the following conditions are met.

1. The power angling cylinders must be installed correctly on to the plow assembly. The left cylinder (Driver's side) has two hoses. Attach the left wing 1/4" hose to the rod or live end of left ram. Attach the left wing 3/8" hose to the fixed end of left ram. Attach the right wing 1/4" hoseto the rod or live end of right ram. Attach the right wing 3/8" hose to the fixed end of right ram. See Figure 1
2. The solenoid wires must be on their proper coil. See Figure 2

Figure 1

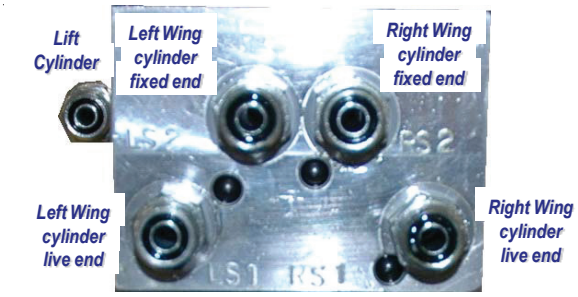
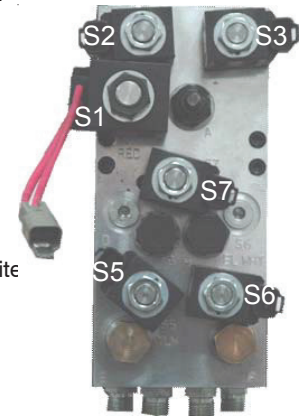


Figure 2



Hydraulic Solenoid Color Code:
S1 (Red and Black w/white stripe)
S2 (Black and Black w/white stripe)
S3 (Green and Black w/white stripe)
S5 (Yellow and Black w/white stripe)
S6 (Blue w/white stripe and Black w/white
S7 (Purple and Black w/white stripe)

TESTING TIPS

Many tests do not require removing the Electro Lift® unit from the vehicle. However, more thorough testing can be performed using the Meyer Test Stand which allows direct pressure and amperage readings.

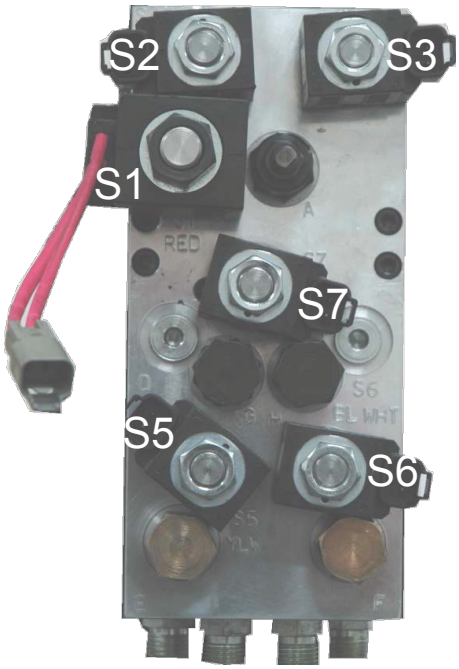
1. Using a screwdriver or other small tool to check for magnetism of the solenoid coils "S1", "S2", "S3", "S5", "S6" and "S7". Place the tool on the nut securing the coil and have an assistant operate the switch. You should feel strong magnetic attraction.
2. Use a test light or volt meter to determine whether there is power at the harness.
3. When determining AMP draw of the motor, always obtain the highest value possible, i.e, at maximum raise or maximum angle with motor running.
4. The pump shaft of a good pump can be turned smoothly using two fingers. If it can't be turn easily, the pump is too tight and must be replaced.
5. Pump pressure can be measured at an angle hose (note pressure at full angle) Note: The V-70 Unit has a adjustable pressure relief valve.
6. Flush the complete system including unit, hoses and power angling rams with Meyer Hydra-Flush™ Fluid M-2.

V-70 CONTROLLER OPERATION

- The snow plow should only be in operation when the vehicle ignition switch and the control switch are in the "ON" position. Care should be taken to insure that the control switch is kept dry and free from moisture during normal operation.
- When the control switch is turned "On," lights illuminate the location of the individual touch pads for the functions of the snow plow: (Up), (Angle Left),(Left Extend), (Left Retract), (Angle Right), (Right Extend), (Right Retract), (Scoop), (Vee) and (Down).
- Lowering of the snow plow an inch at a time is possible by tapping the down arrow in short intervals. Holding down the down arrow will activate a float light located in the upper right corner of the control switch. This light indicates the snow plow is now in the Lower/Float position. In this position the snow plow will be able to follow the contour of the road and the snow plow can also be angled to the left or right. Touching the up arrow automatically cancels the Lower/Float position.
- While angling left or right or raising the snow plow if the button is pressed for more than six seconds the operation will be cancelled. This feature eliminates unnecessary amp draw from the vehicle charging system.
- This switch is self diagnosing. The monitor light is located in the upper left corner next to the float light of the control switch. When the monitor light turns on and begins to flash the control switch is sensing a problem with a specific coil/connection on the hydraulic unit. The label below is on the back side of your control switch.
- Reset is accomplished by turning off the ignition switch or by turning the power switch off momentarily and then back on. If the monitor light is still illuminated after attempts to reset the switch have failed, contact your nearest authorized Meyer Distributor for repairs.

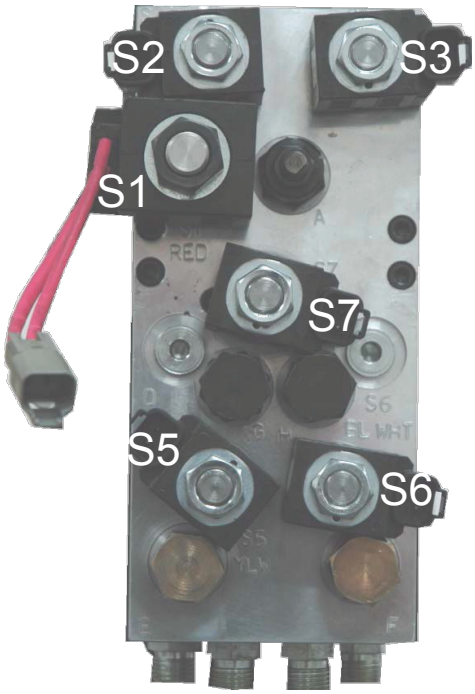
Operation Chart | V-70

V-70	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP
MOTOR	X		X	X	X	X	X	X	X	X
S1	X	X								
S2	X	X							X	X
S3		X	X	X			X		X	X
S5						X				X
S6				X						X
S7			X		X				X	X



Operation Chart | V-70

V-70	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP
MOTOR	X		X	X	X	X	X	X	X	X
S1	X	X								
S2	X	X							X	X
S3		X	X	X			X		X	X
S5						X				X
S6				X						X
S7			X		X				X	X



S1 Solenoid Failure

Red and Black w/White Stripe

No Raise or Lower

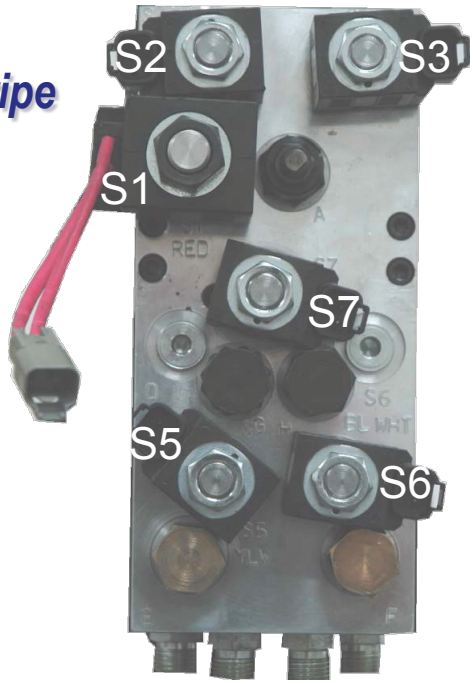
Operation Chart | V-70

V-70	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP
MOTOR	X		X	X	X	X	X	X	X	X
S1	X	X								
S2	X	X							X	X
S3		X	X	X			X		X	X
S5						X				X
S6				X						X
S7			X		X				X	X

S2 Solenoid Failure
Black and Black w/White Stripe

No Raise, Lower, Vee or Scoop

Press Vee Function the plow will retract right wing



Operation Chart | V-70

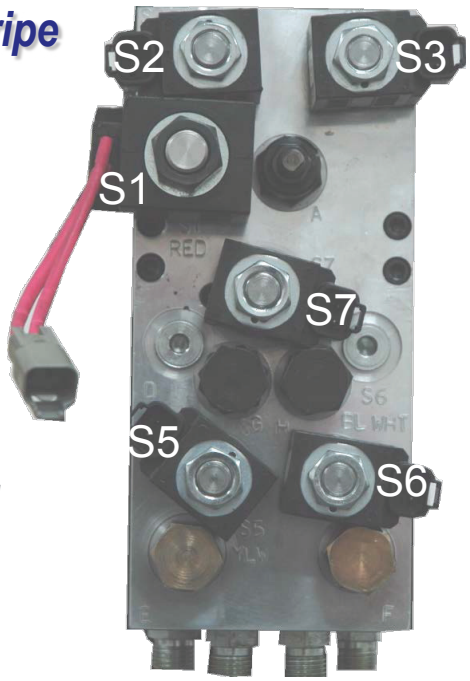
V-70	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP
MOTOR	X		X	X	X	X	X	X	X	X
S1	X	X								
S2	X	X							X	X
S3		X	X	X			X		X	X
S5						X				X
S6				X						X
S7			X		X				X	X

S3 Solenoid Failure
Green and Black w/White Stripe

No Lower, Right Retract , Right Extend, Right Angle, Vee or Scoop

Press Right Retract the plow will retract left wing

Press Angle Right the plow will angle left



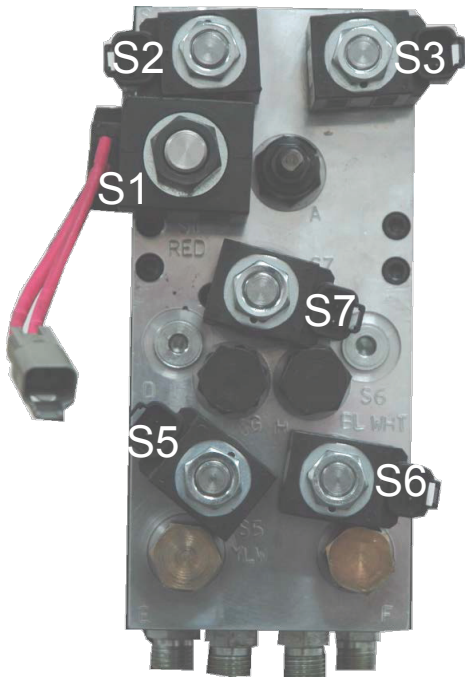
Operation Chart | V-70

V-70	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP
MOTOR	X		X	X	X	X	X	X	X	X
	X	X								
	X	X							X	X
		X	X	X			X		X	X
						X				X
				X						X
			X		X				X	X

S5 Solenoid Failure
Yellow and Black w/White Stripe

No Left Extend or Scoop

Press Left Extend the plow will angle Left



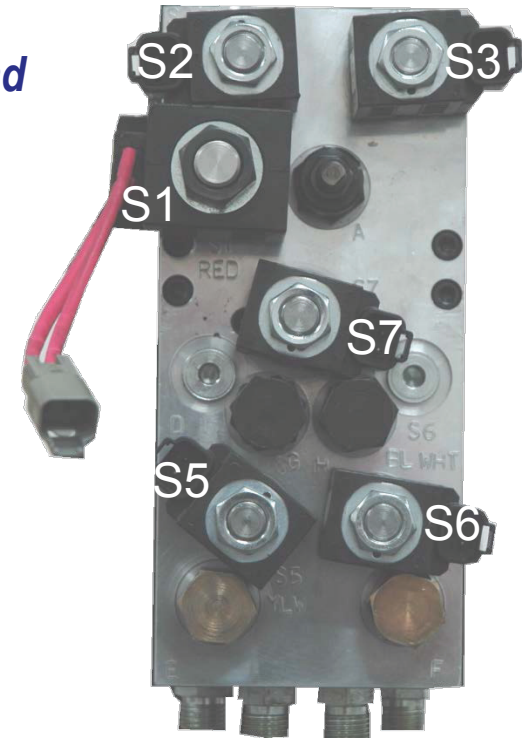
Operation Chart | V-70

V-70	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP
MOTOR	X		X	X	X	X	X	X	X	X
S1	X	X								
S2	X	X							X	X
S3		X	X	X			X		X	X
S5						X				X
S6				X						X
S7			X		X				X	X

S6 Solenoid Failure
Blue w/White Stripe and
Black w/White Stripe

No Right
Extend or
Scoop

Press Right Extend the plow will angle Right



Operation Chart | V-70

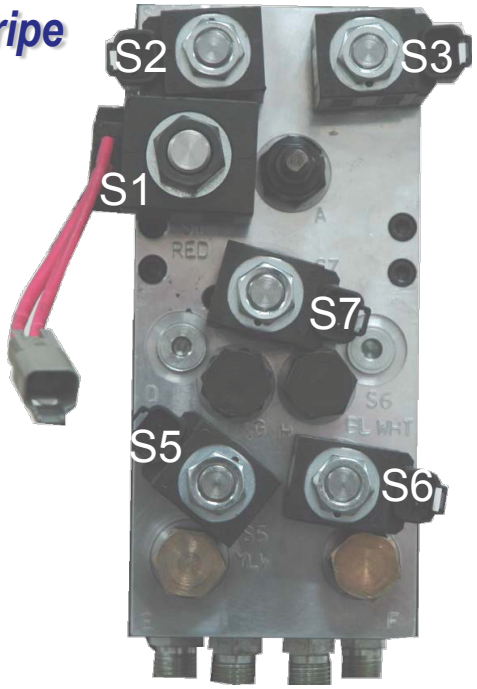
V-70	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP
MOTOR	X		X	X	X	X	X	X	X	X
S1	X	X								
S2	X	X							X	X
S3		X	X	X			X		X	X
S5						X				X
S6				X						X
S7			X		X				X	X

S7 Solenoid Failure
Purple and Black w/White Stripe

No Right Retract , Left Retract, Vee or Scoop

Press Right Retract the plow will angle right

Press Left Retract the plow will angle left



PARTS & INSTALLATION INSTRUCTIONS
V-71 ELECTRO-LIFT® UNIT

PARTS LIST

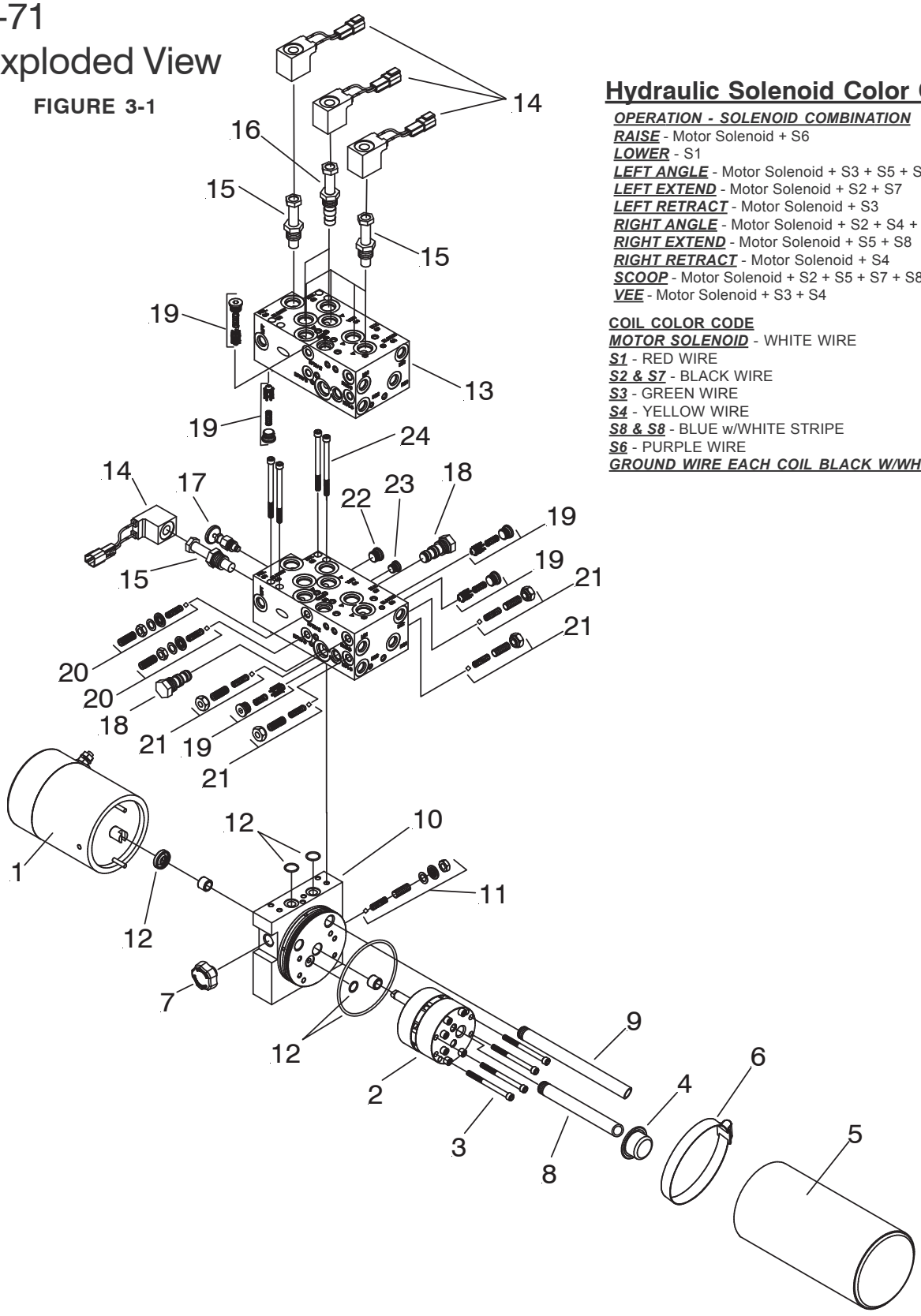
ITEM	V-71	QTY	DESCRIPTION
	15132	1	**Lift Assembly (Unit Only) 12V**
1	15070	1	• Motor - 12 Volt (2 Terminal)
2	15097	1	• Pump Assembly
3	15083	4	• Allen Head Screw 1/4-20 x 3"
4	15101	1	• Pump Filter Assy.
5	15169	1	• Reservoir
6	15066	1	• Reservoir Clamp
7	15067	1	• Reservoir Breather
8	15173	1	• Oil Pick up Tube 6-1/4"
9	15099	1	• Oil Return Tube 8"
10	15095	1	• Base Assembly
11	15121	1	• Adjustable Relief Valve
12	15082	1	• Seal Kit (All Seals)
13	*15174	1	• Valve Assembly (12V)
14	15150	8	• Coil (12V)
15	15146	6	• "S1", "S3", "S4", "S6", "S7", "S8" Cartridge Valve
16	15149	2	• "S2", "S5" Cartridge Valve
17	15165	1	• Kit Needle Valve (Lower Adj.)
18	15160	2	• Kit Dual PO Check Valve
19	15152	5	• Kit Check Valve Assembly
20	15121	2	• Kit Relief Valve Assy. 3000 p.s.i.
21	15161	4	• Kit Relief Valve Assy. 2900 p.s.i.
22	15104	1	• 9/16" Plug
23	15159	1	• 7/16" Plug
24	15164	4	• Allen Head Screw 1/4-20 x 3-1/2"

Parts indented are included in assembly under which they are indented.

*No Longer Available

V-71
Exploded View

FIGURE 3-1



Hydraulic Solenoid Color Code:

OPERATION - SOLENOID COMBINATION
RAISE - Motor Solenoid + S6
LOWER - S1
LEFT ANGLE - Motor Solenoid + S3 + S5 + S8
LEFT EXTEND - Motor Solenoid + S2 + S7
LEFT RETRACT - Motor Solenoid + S3
RIGHT ANGLE - Motor Solenoid + S2 + S4 + S7
RIGHT EXTEND - Motor Solenoid + S5 + S8
RIGHT RETRACT - Motor Solenoid + S4
SCOOP - Motor Solenoid + S2 + S5 + S7 + S8
VEE - Motor Solenoid + S3 + S4

COIL COLOR CODE
MOTOR SOLENOID - WHITE WIRE
S1 - RED WIRE
S2 & S7 - BLACK WIRE
S3 - GREEN WIRE
S4 - YELLOW WIRE
S8 & S8 - BLUE w/WHITE STRIPE
S6 - PURPLE WIRE
GROUND WIRE EACH COIL BLACK W/WHITE STRIPE

V-71 Raise: Motor and “S6”

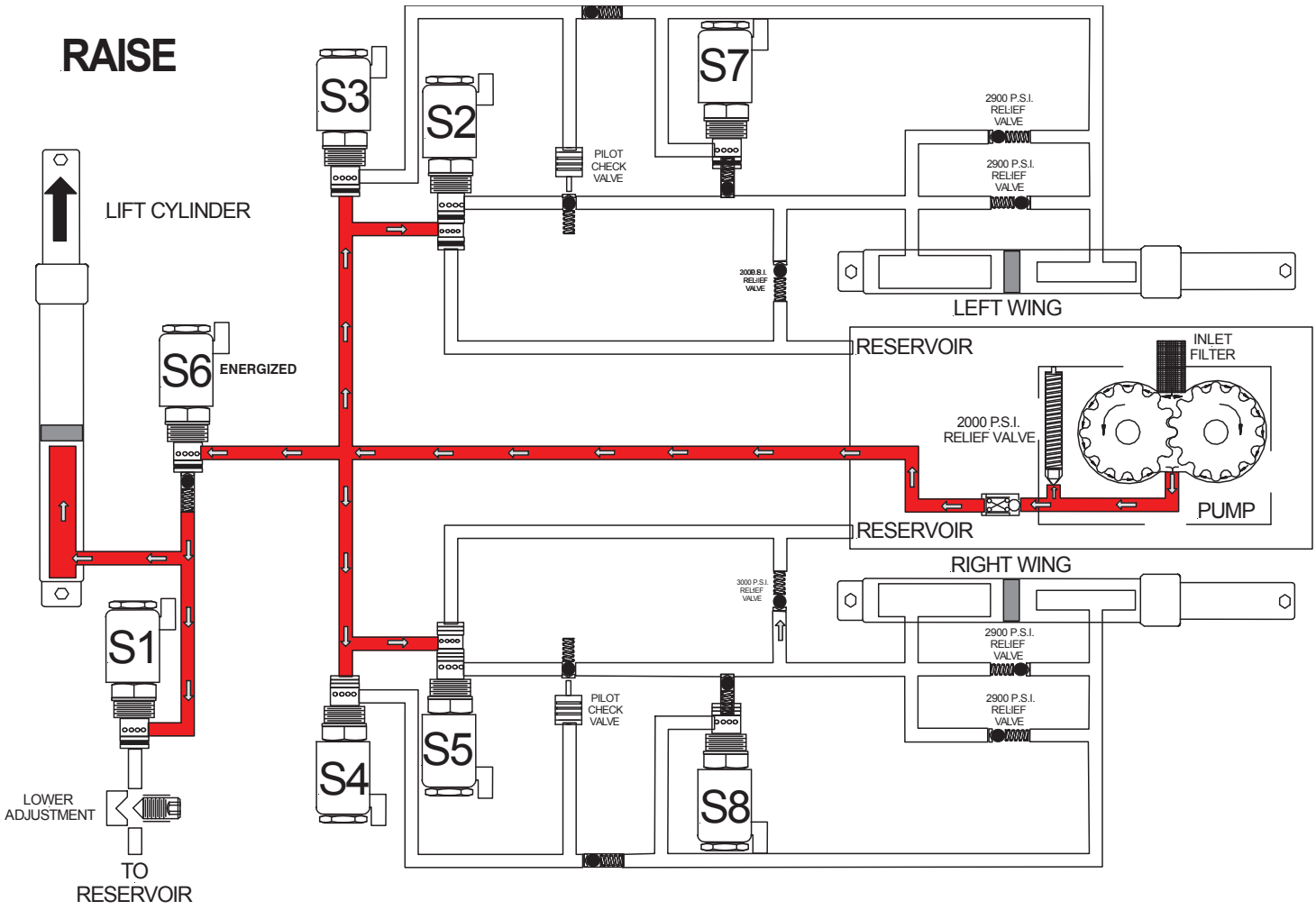


FIGURE 1-1

V-71 Lower: “S1” Only

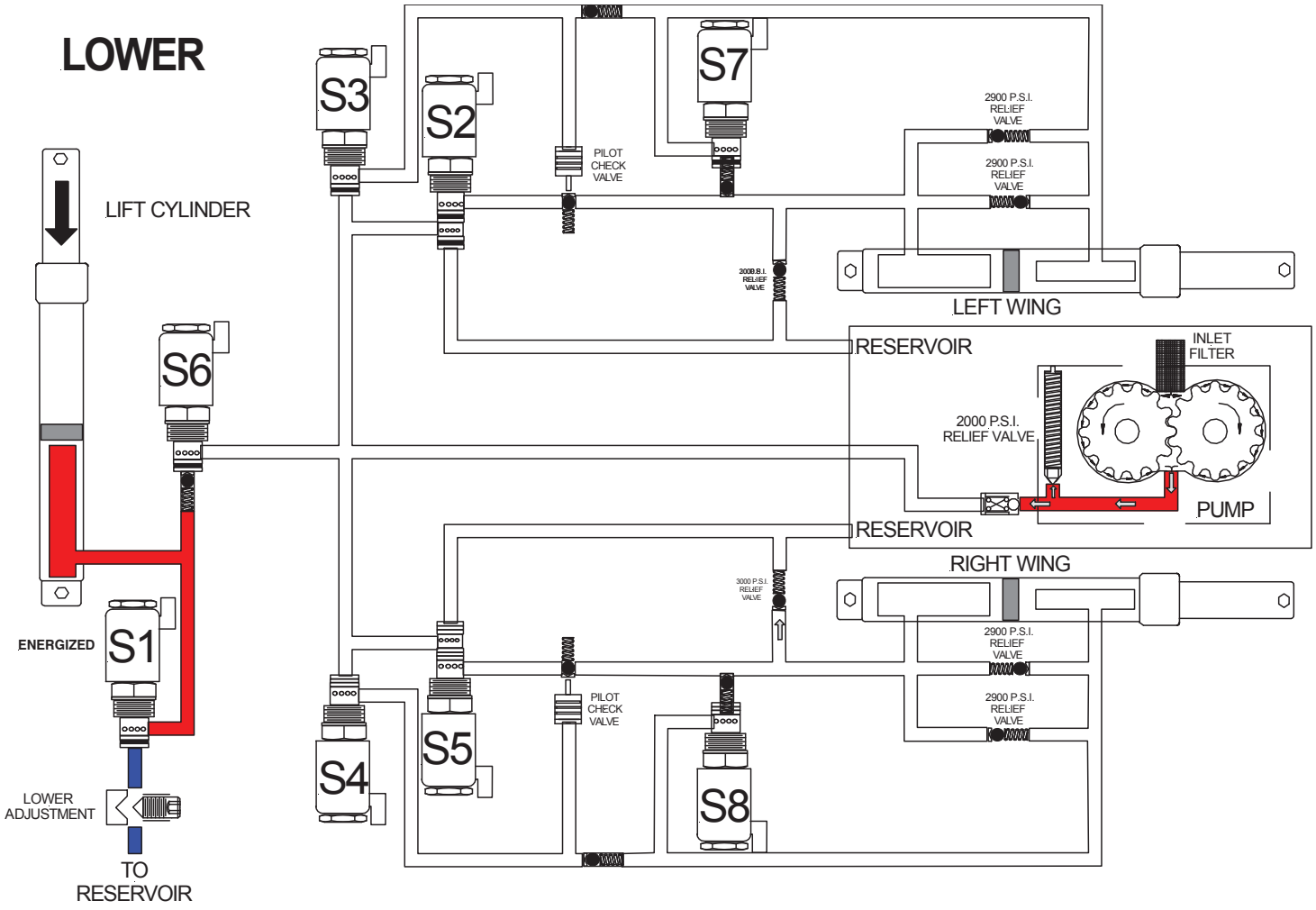


FIGURE 1-2

V-71 Angle Left: Motor, “S3”, “S5” and “S8”

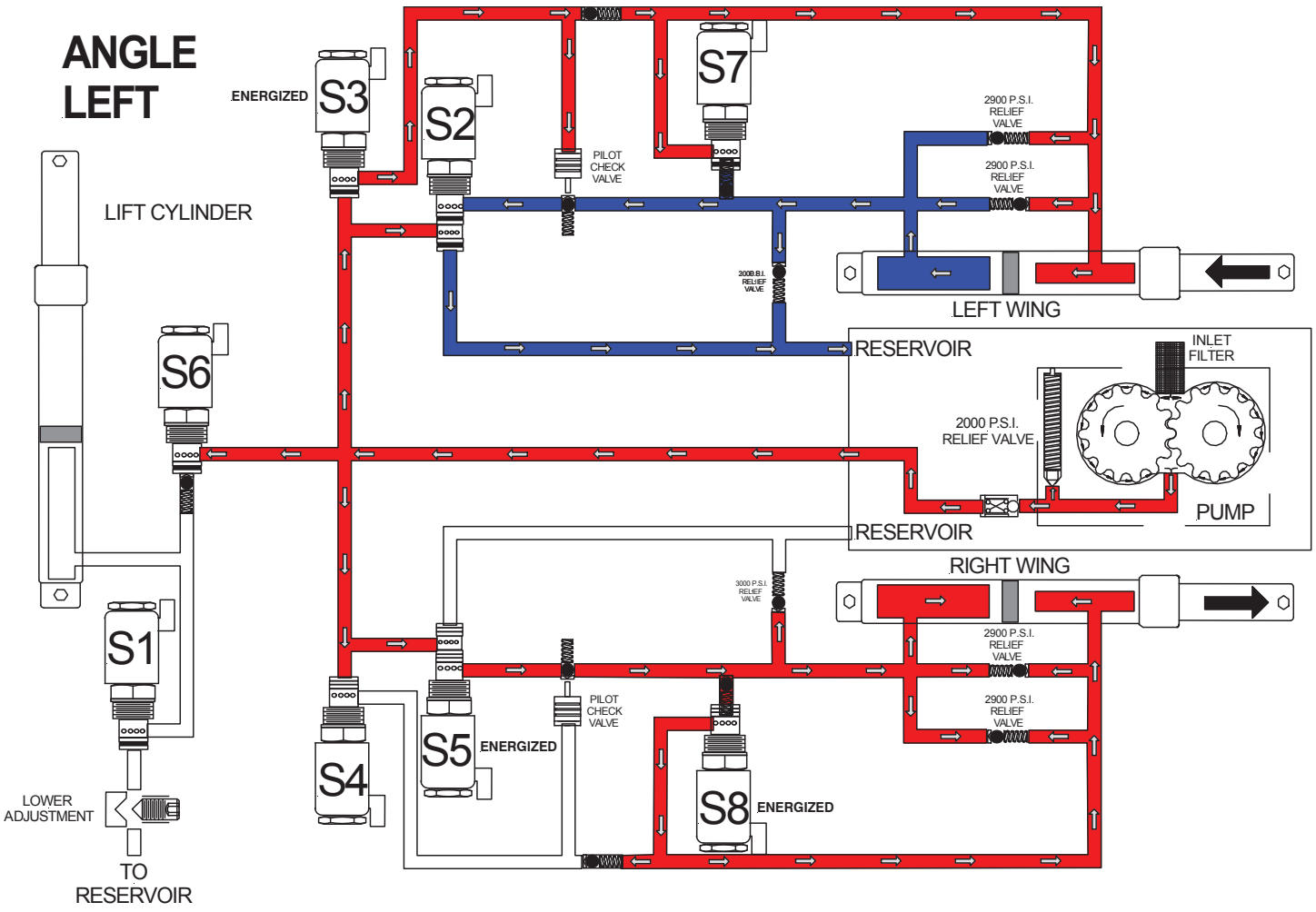


FIGURE 1-3

V-71 Angle Right: Motor “S2”, “S4” and “S7”

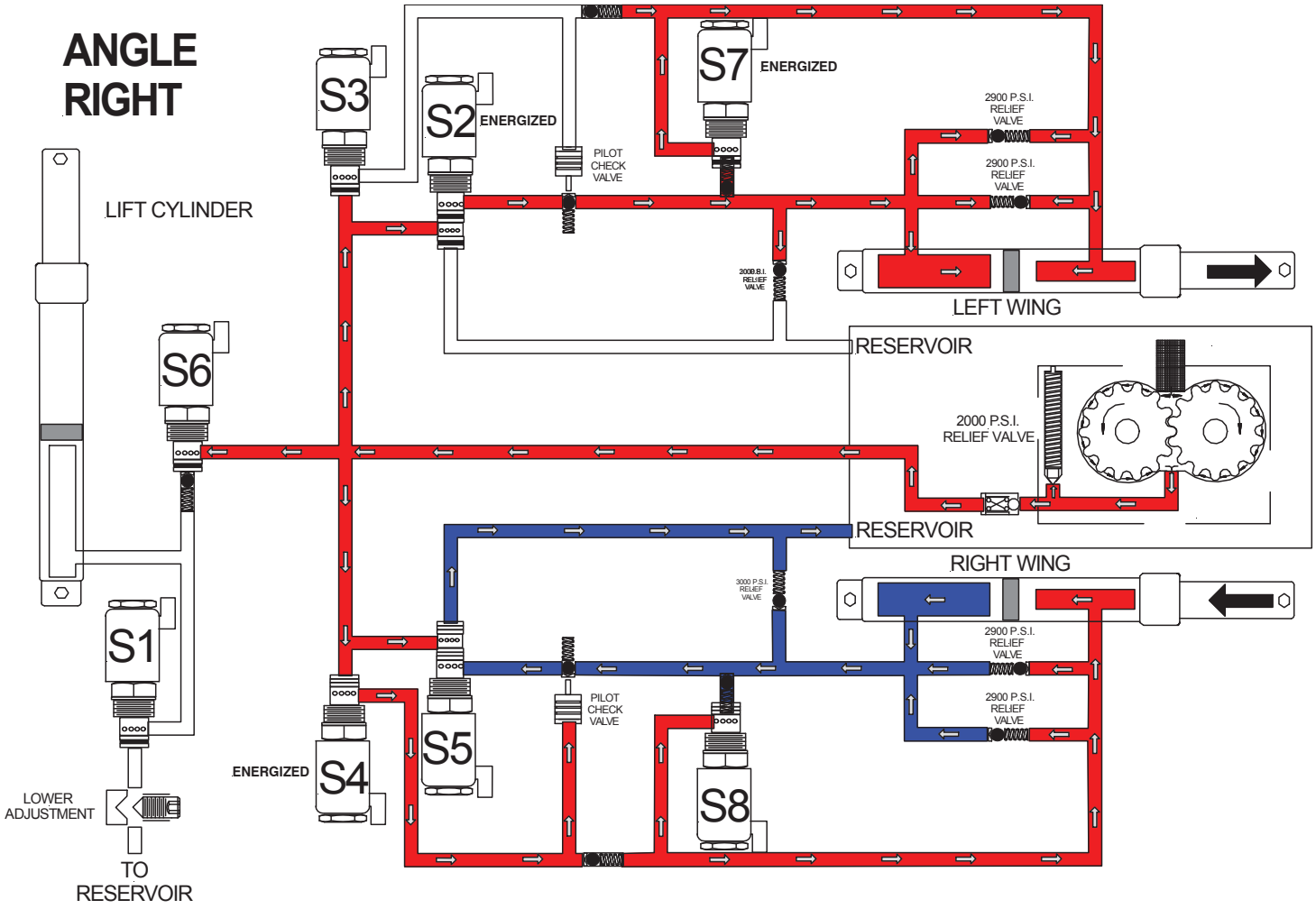


FIGURE 1-4

V-71 Left Extend: Motor, “S2” and “S7”

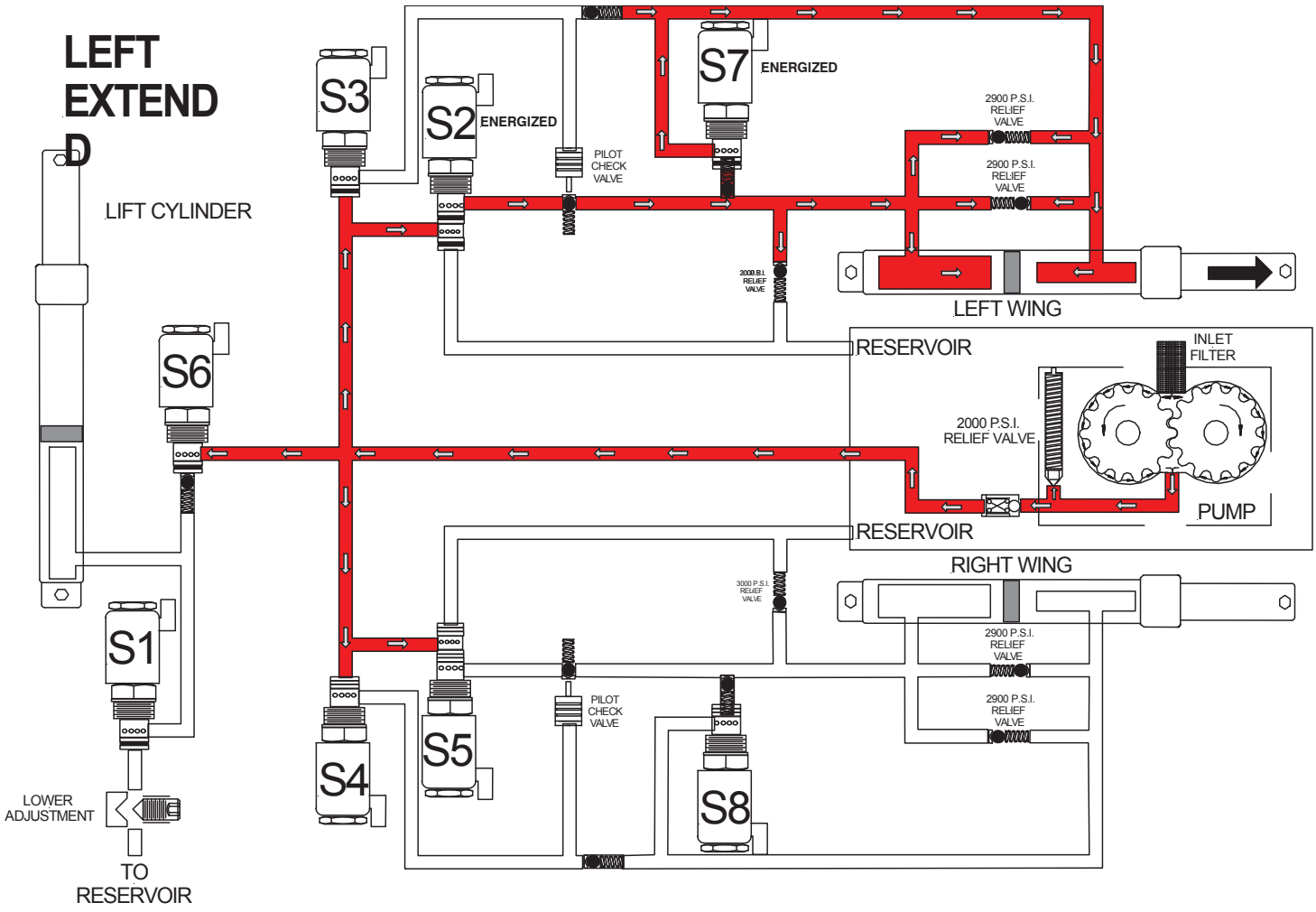


FIGURE 1-5

V-71 Left Retract: Motor and “S3”

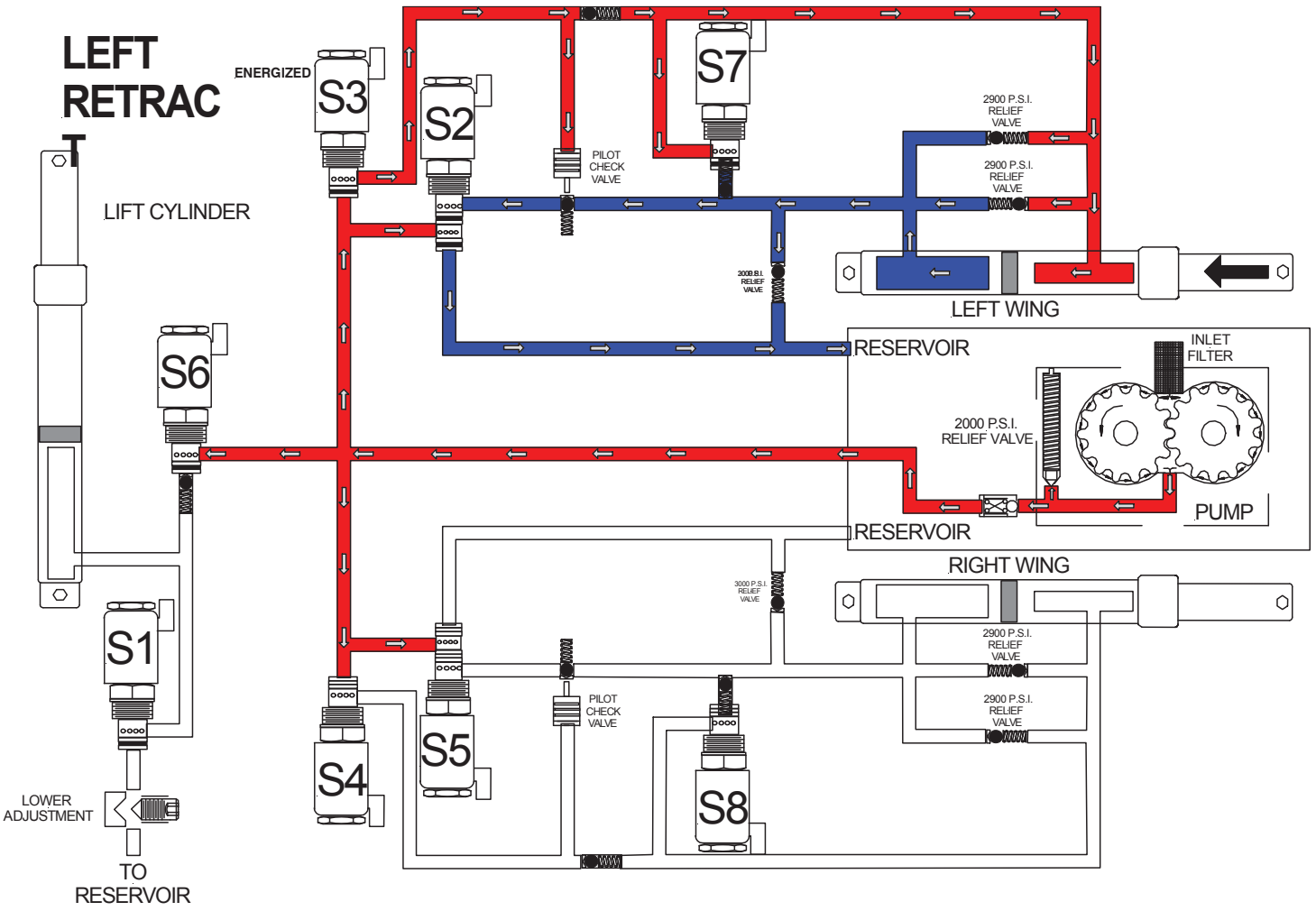


FIGURE 1-6

V-71 Right Extend: Motor, “S5” and “S8”

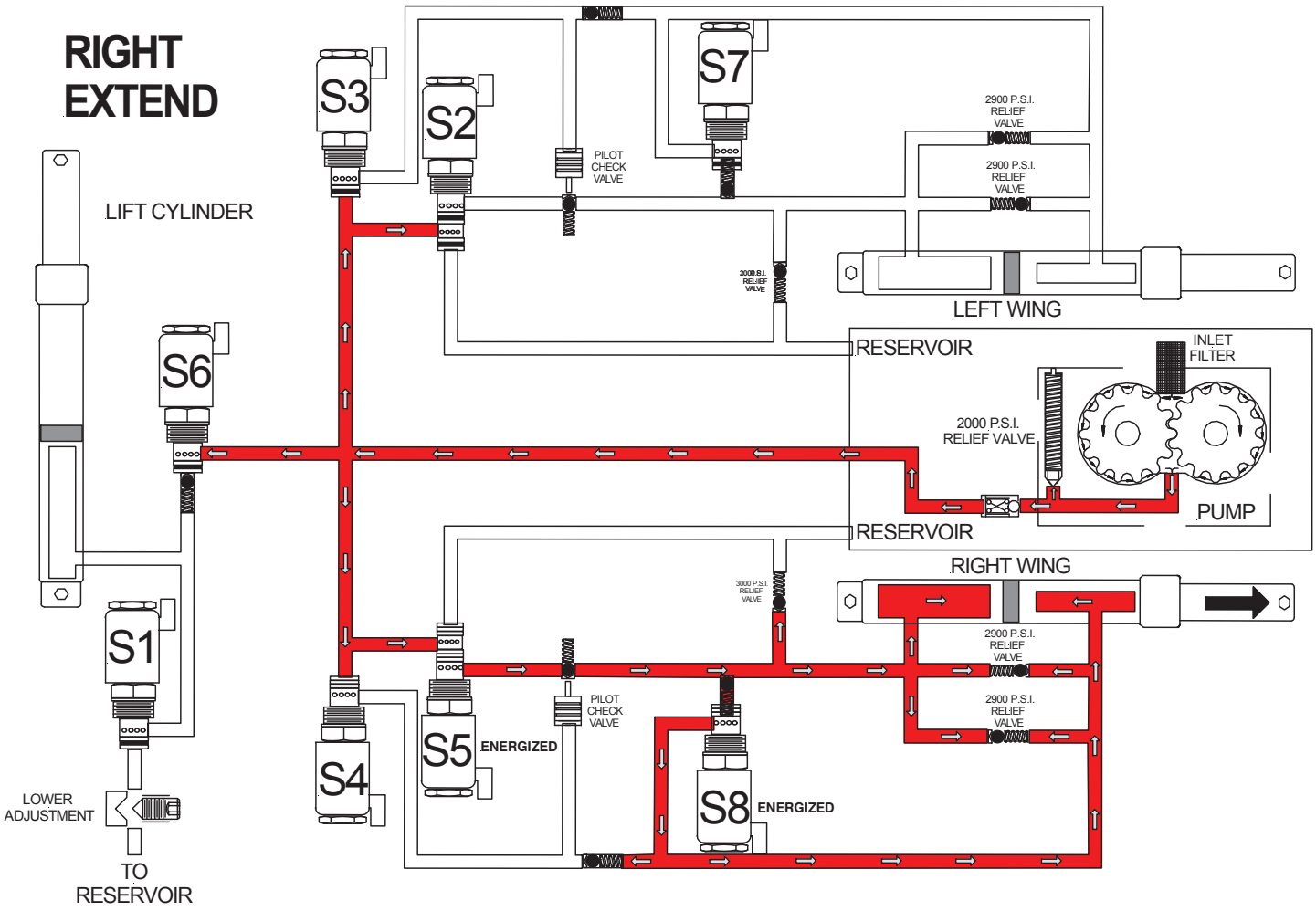


FIGURE 1-7

V-71 Right Retract: Motor and “S4”

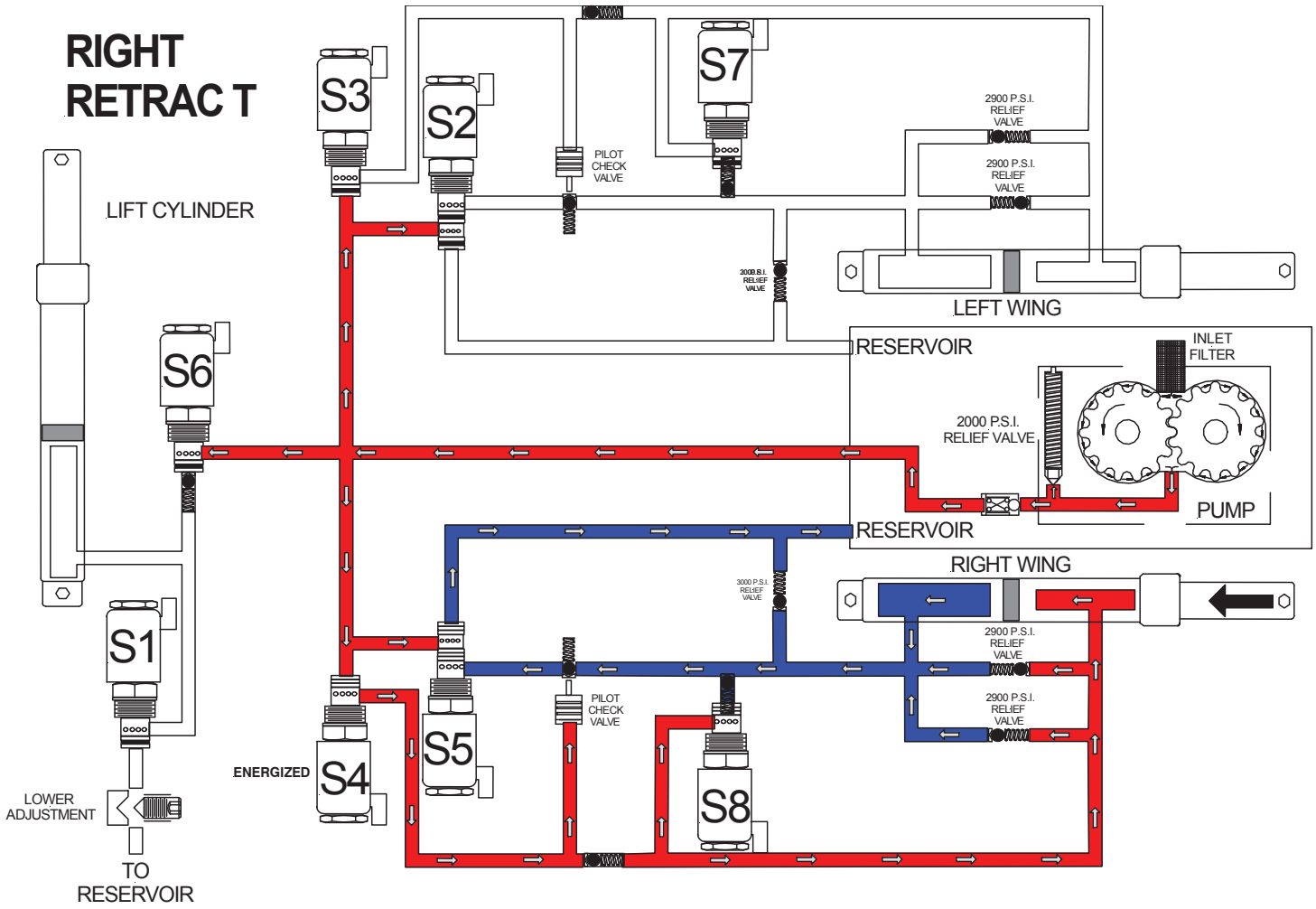


FIGURE 1-8

V-71 Scoop: Motor, “S2”, “S5”, “S7”and “S8”

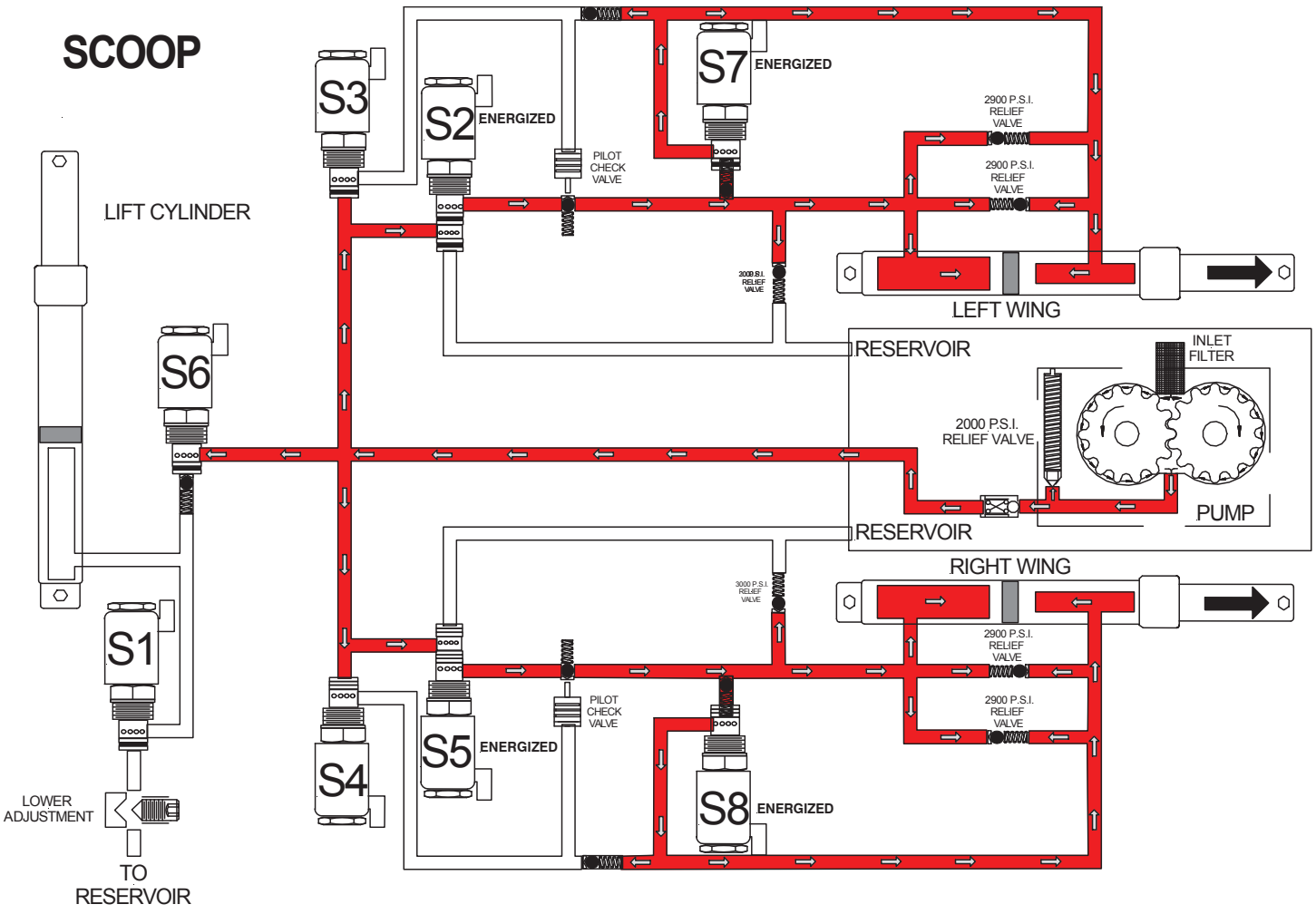


FIGURE 1-9

V-71 VEE: Motor, “S3” and “S4”

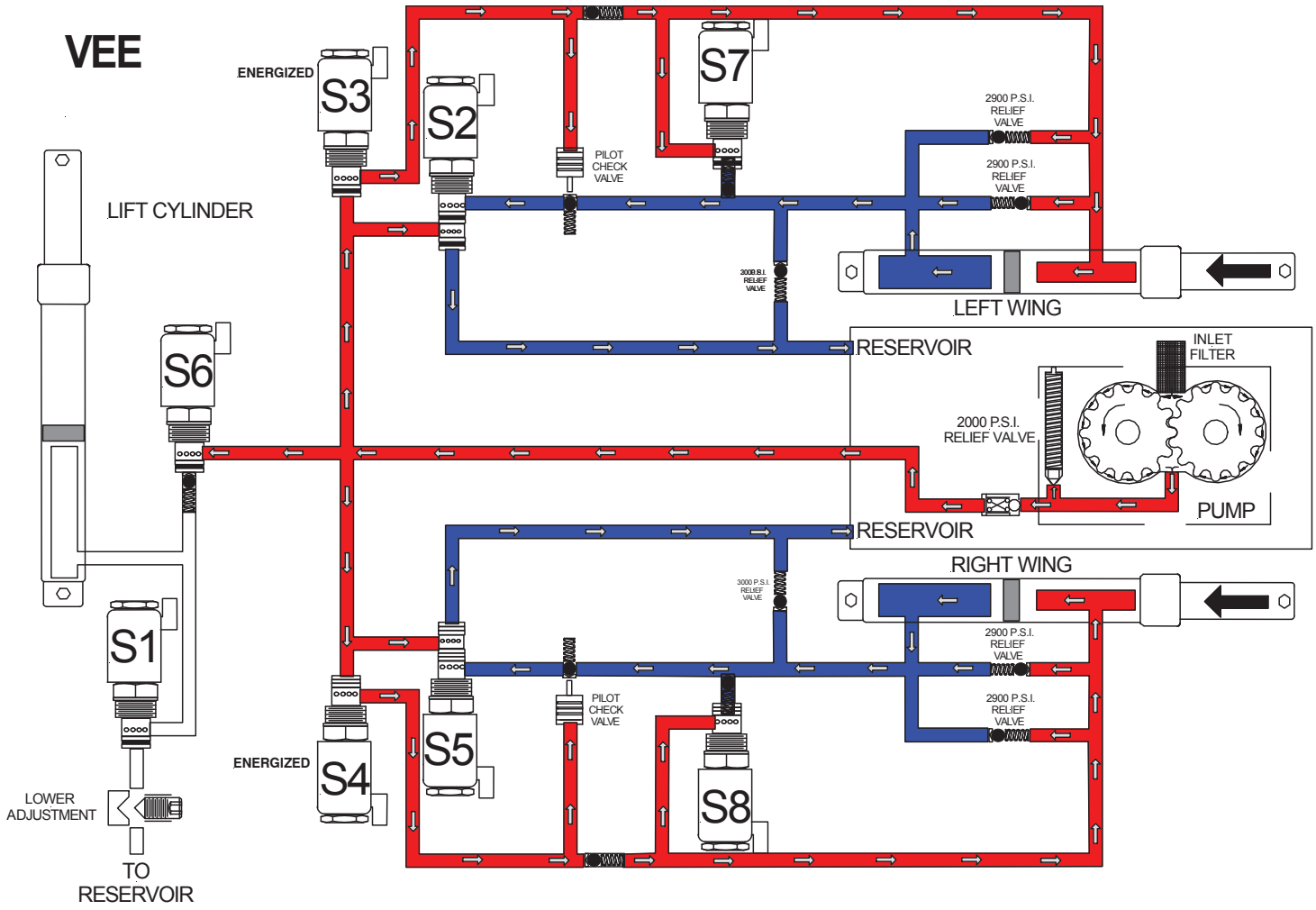


FIGURE 1-10

DIAGNOSTIC FLOW CHART FOR
V-71 Unit

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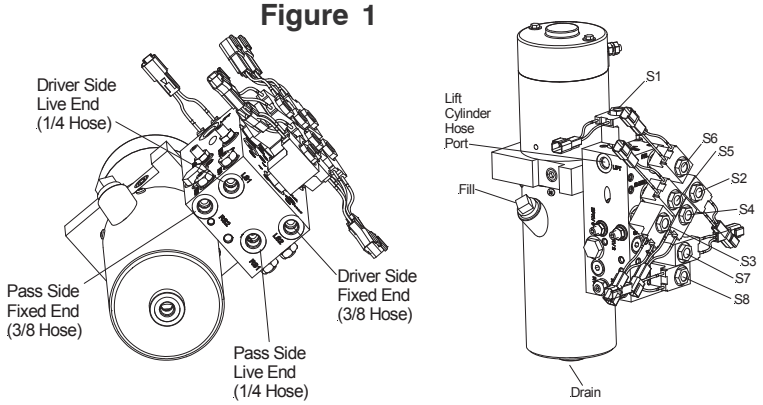
IMPORTANT: Maintenance and repairs must be performed with the moldboard on the ground.

General Information

Before any troubleshooting is started, make certain the following conditions are met.

1. The power angling cylinders must be installed correctly on to the plow assembly. The left cylinder (Driver's side) has two hoses. Attach the left wing 1/4" hose to the rod or live end of left ram. Attach the left wing 3/8" hose to the fixed end of left ram. Attach the right wing 1/4" hoseto the rod or live end of right ram. Attach the right wing 3/8" hose to the fixed end of right ram. See Figure 1
2. The solenoid wires must be on their proper coil. See Figure 1

Figure 1



Hydraulic Solenoid Color Code:
S1 (Red and Black w/white stripe)
S2 & S7 (Black and Black w/white stripe)
S3 (Green and Black w/white stripe)
S4 (Yellow and Black w/white stripe)
S5 & S8 (Blue w/white stripe and Black w/white stripe)
S6 (Purple and Black w/white stripe)

TESTING TIPS

Many tests do not require removing the Electro Lift® unit from the vehicle. However, more thorough testing can be performed using the Meyer Test Stand which allows direct pressure and amperage readings.

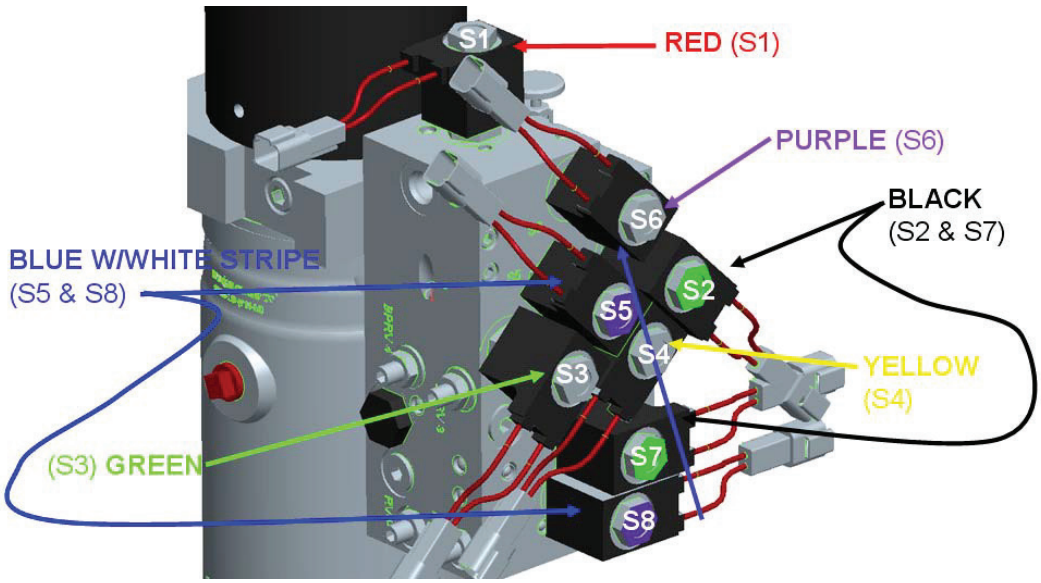
1. Using a screwdriver or other small tool to check for magnetism of the solenoid coils "S1", "S2", "S3", "S4", "S5", "S6", "S7" and "S8". Place the tool on the nut securing the coil and have an assistant operate the switch. You should feel strong magnetic attraction.
2. Use a test light or volt meter to determine whether there is power at the harness.
3. When determining AMP draw of the motor, always obtain the highest value possible, i.e, at maximum raise or maximum angle with motor running.
4. The pump shaft of a good pump can be turned smoothly using two fingers. If it can't be turn easily, the pump is too tight and must be replaced.
5. Pump pressure can be measured at an angle hose (note pressure at full angle) Note: The V-71 Unit has a adjustable pressure relief valve.
6. Flush the complete system including unit, hoses and power angling rams with Meyer Hydra-Flush™ Fluid M-2.

V-71 CONTROLLER OPERATION

- The snow plow should only be in operation when the vehicle ignition switch and the control switch are in the "ON" position. Care should be taken to insure that the control switch is kept dry and free from moisture during normal operation.
- When the control switch is turned "On," lights illuminate the location of the individual touch pads for the functions of the snow plow: (Up), (Angle Left),(Left Extend), (Left Retract), (Angle Right), (Right Extend), (Right Retract), (Scoop), (Vee) and (Down).
- Lowering of the snow plow an inch at a time is possible by tapping the down arrow in short intervals. Holding down the down arrow will activate a float light located in the upper right corner of the control switch. This light indicates the snow plow is now in the Lower/Float position. In this position the snow plow will be able to follow the contour of the road and the snow plow can also be angled to the left or right. Touching the up arrow automatically cancels the Lower/Float position.
- While angling left or right or raising the snow plow if the button is pressed for more than six seconds the operation will be cancelled. This feature eliminates unnecessary amp draw from the vehicle charging system.
- This switch is self diagnosing. The monitor light is located in the upper left corner next to the float light of the control switch. When the monitor light turns on and begins to flash the control switch is sensing a problem with a specific coil/connection on the hydraulic unit. The label below is on the back side of your control switch.
- Reset is accomplished by turning off the ignition switch or by turning the power switch off momentarily and then back on. If the monitor light is still illuminated after attempts to reset the switch have failed, contact your nearest authorized Meyer Distributor for repairs.

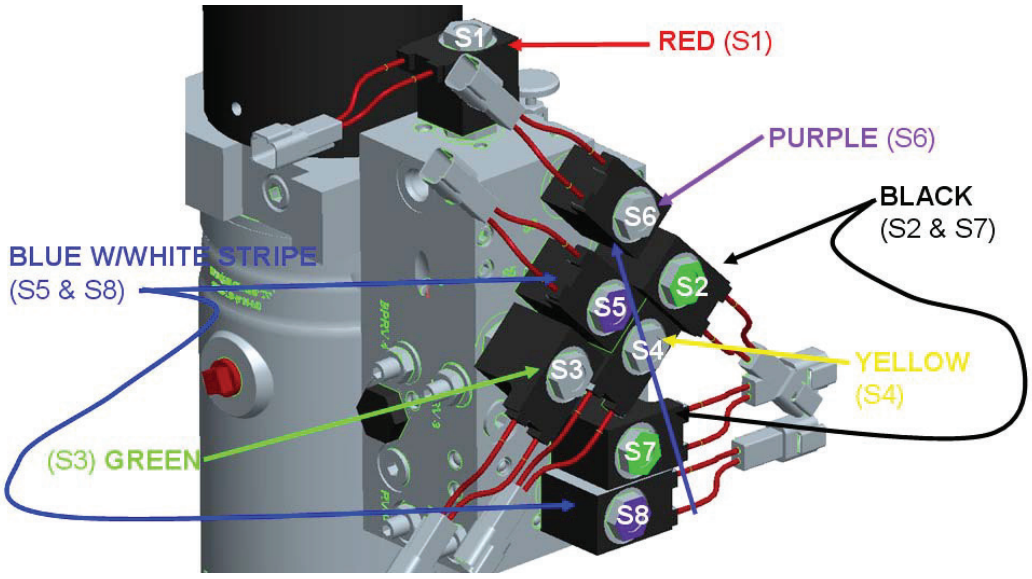
Operation Chart | V-71

V-71	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP	V-71
MOTOR	X		X	X	X	X	X	X	X	X	MOTOR
S1		X									S1
S2						X	X			X	S2
S3					X			X	X		S3
S4			X				X		X		S4
S5				X				X		X	S5
S6	X										S6
S7						X	X			X	S7
S8				X				X		X	S8



Operation Chart | V-71

V-71	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP	V-71
MOTOR	X		X	X	X	X	X	X	X	X	MOTOR
S1		X									S1
S2						X	X			X	S2
S3					X			X	X		S3
S4			X				X		X		S4
S5				X				X		X	S5
S6	X										S6
S7						X	X			X	S7
S8				X				X		X	S8

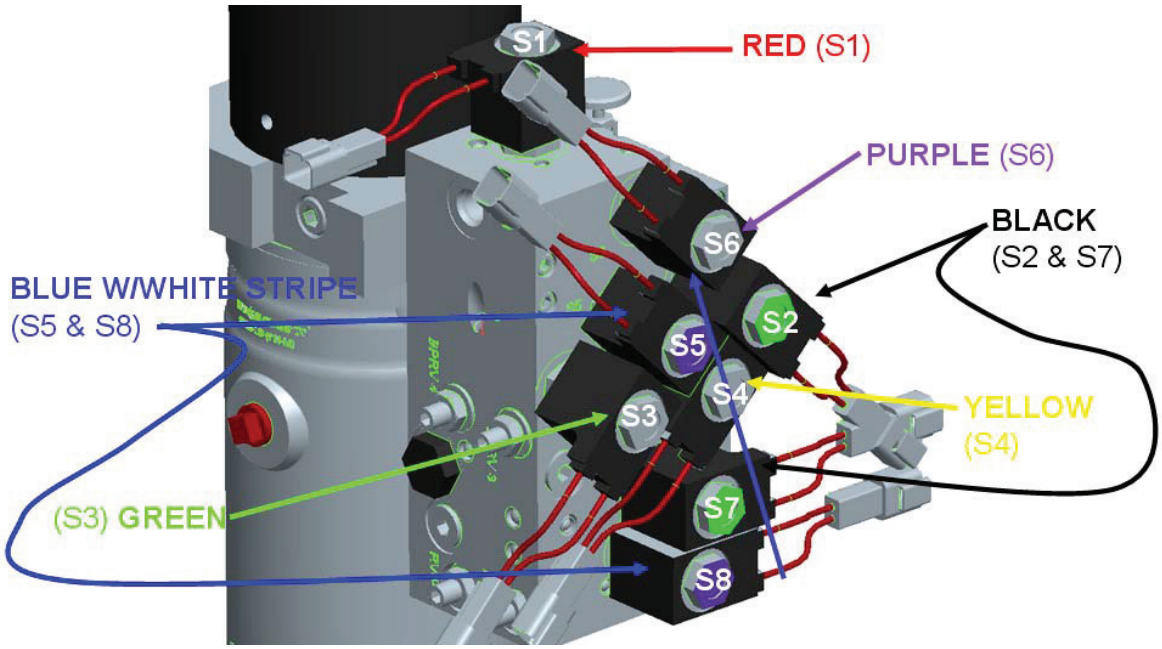


Operation Chart | V-71

V-71	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP	V-71
MOTOR	X		X	X	X	X	X	X	X	X	MOTOR
S1		X									S1
S2						X	X			X	S2
S3					X			X	X		S3
S4			X				X		X		S4
S5				X				X		X	S5
S6	X										S6
S7						X	X			X	S7
S8				X				X		X	S8

Press Angle right and the right wing retracts

Press scoop and the right wing extends

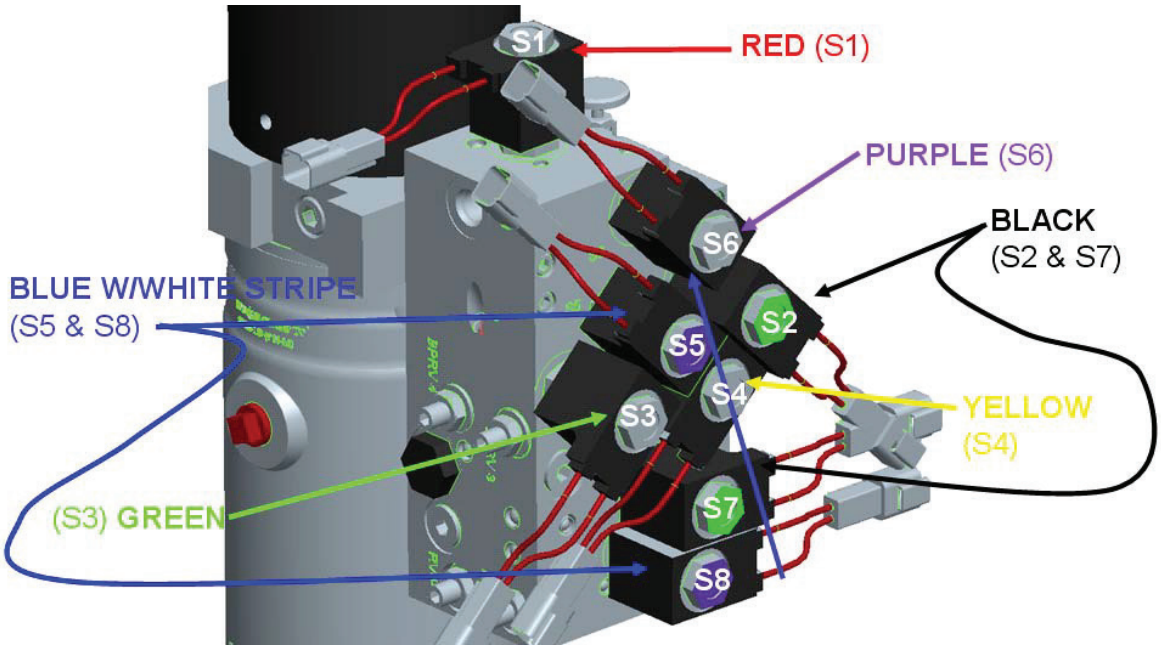


Operation Chart | V-71

V-71	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP	V-71
MOTOR	X		X	X	X	X	X	X	X	X	MOTOR
S1		X									S1
S2						X	X			X	S2
S3					X			X	X		S3
S4			X				X		X		S4
S5				X				X		X	S5
S6	X										S6
S7						X	X			X	S7
S8				X				X		X	S8

Press Angle left and the right wing extends

Press Vee and the right wing retracts

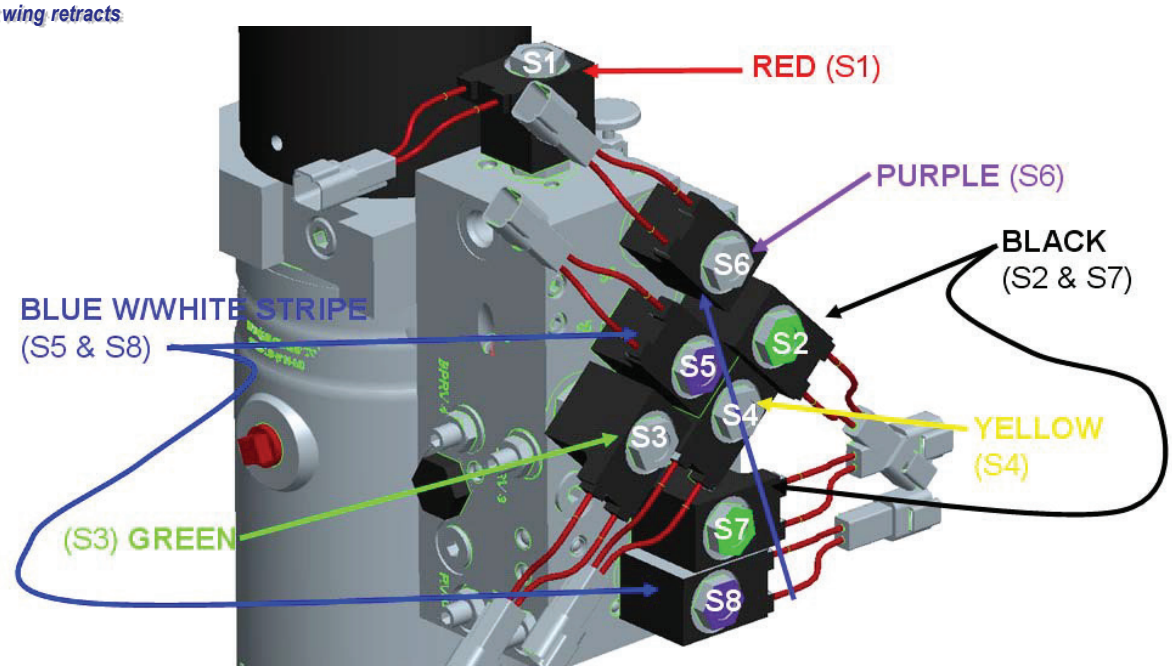


Operation Chart | V-71

V-71	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP	V-71
MOTOR	X		X	X	X	X	X	X	X	X	MOTOR
S1		X									S1
S2						X	X			X	S2
S3					X			X	X		S3
S4			X				X		X		S4
S5				X				X		X	S5
S6	X										S6
S7						X	X			X	S7
S8				X				X		X	S8

Press Angle right and the left wing extends

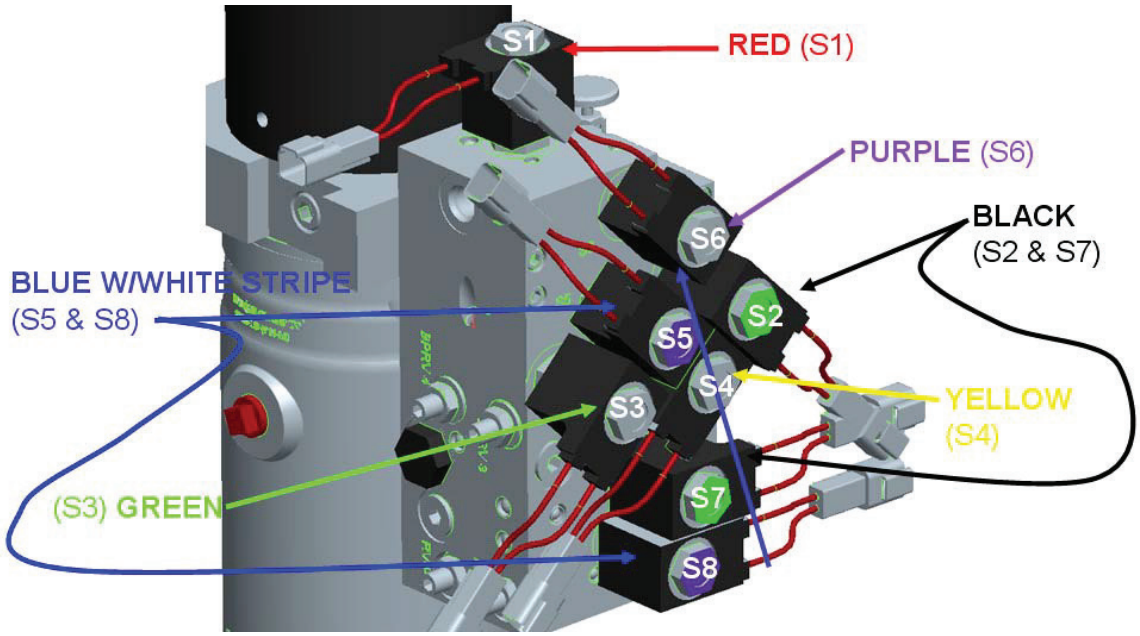
Press Vee and the left wing retracts



Operation Chart | V-71

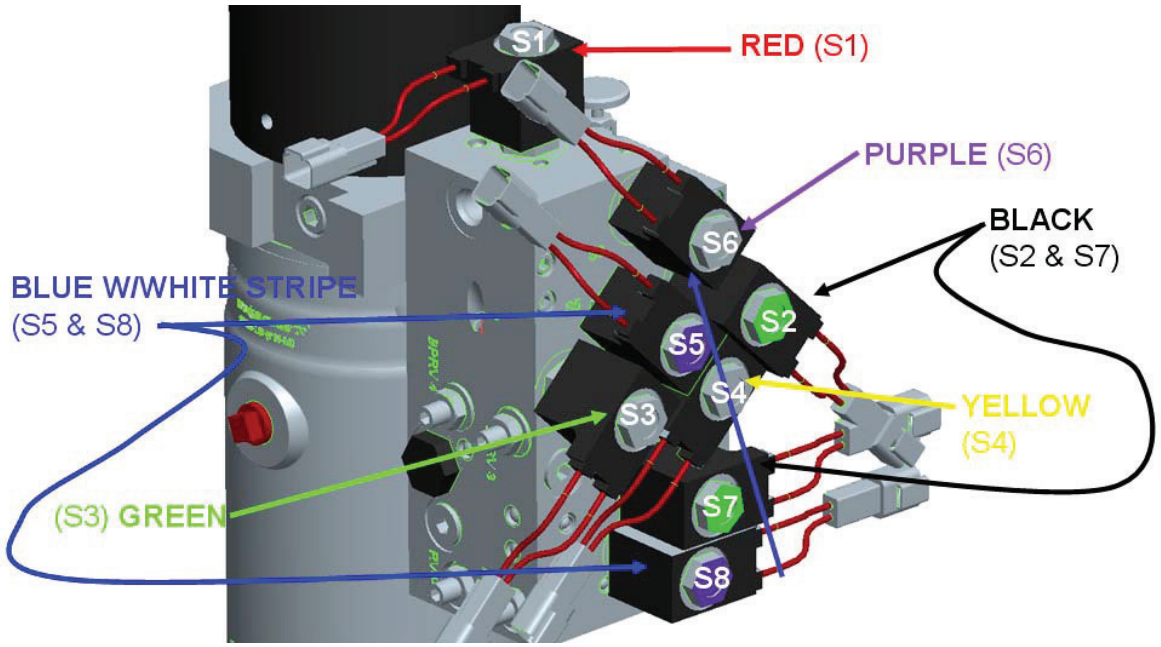
V-71	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP	V-71
MOTOR	X		X	X	X	X	X	X	X	X	MOTOR
S1		X									S1
S2						X	X			X	S2
S3					X			X	X		S3
S4			X				X		X		S4
S5				X				X		X	S5
S6	X										S6
S7						X	X			X	S7
S8				X				X		X	S8

Press Angle left and the left wing retracts



Operation Chart | V-71

V-71	RAISE	LOWER	RIGHT RETRACT	RIGHT EXTEND	LEFT RETRACT	LEFT EXTEND	ANGLE RIGHT	ANGLE LEFT	VEE	SCOOP	V-71
MOTOR	X		X	X	X	X	X	X	X	X	MOTOR
S1		X									S1
S2						X	X			X	S2
S3					X			X	X		S3
S4			X				X		X		S4
S5				X				X		X	S5
S6	X										S6
S7						X	X			X	S7
S8				X				X		X	S8



PARTS BREAKDOWN

PARTS LIST

ITEM	E-70 12V	E-70 24V	QTY	DESCRIPTION
	15826	**16001**	1	**Lift Assembly (Unit Only)**
1	15061	15061	1	• Base Assembly
2	15069	15061	1	• Cover Valve Block
3	15070	15135	1	• Motor - 12 Volt (2 Terminal)
4	15062	15062	1	• Pump Assy.
5	15083	15083	4	• Allen Head 1/4-20 x 3"
6	15063	15063	1	• Suction Tube 1/2" NPT
7	15064	15064	1	• Pump Filter Assy.
8	---------	---------	1	• Pipe Nipple 3/8 x 5-1/2" NPT
9	---------	---------	1	• Pipe Nipple 1/2 x 2" NPT
10	---------	---------	1	• Suction Tube 3/8" NPT
11	---------	---------	1	• 90 Degree Elbow 3/8 x 3/8 NPT
12	---------	---------	1	• 90 Degree Elbow 1/2 x 1/2 NPT
13	15065	15065	1	• Reservoir
14	15066	15066	1	• Reservoir Clamp
15	15067	15067	1	• Reservoir Breather Plug
16	15084	15084	6	• Allen Head 1/4-20 x 3-3/4"
17	15082	15082	1	• Complete Seal Kit

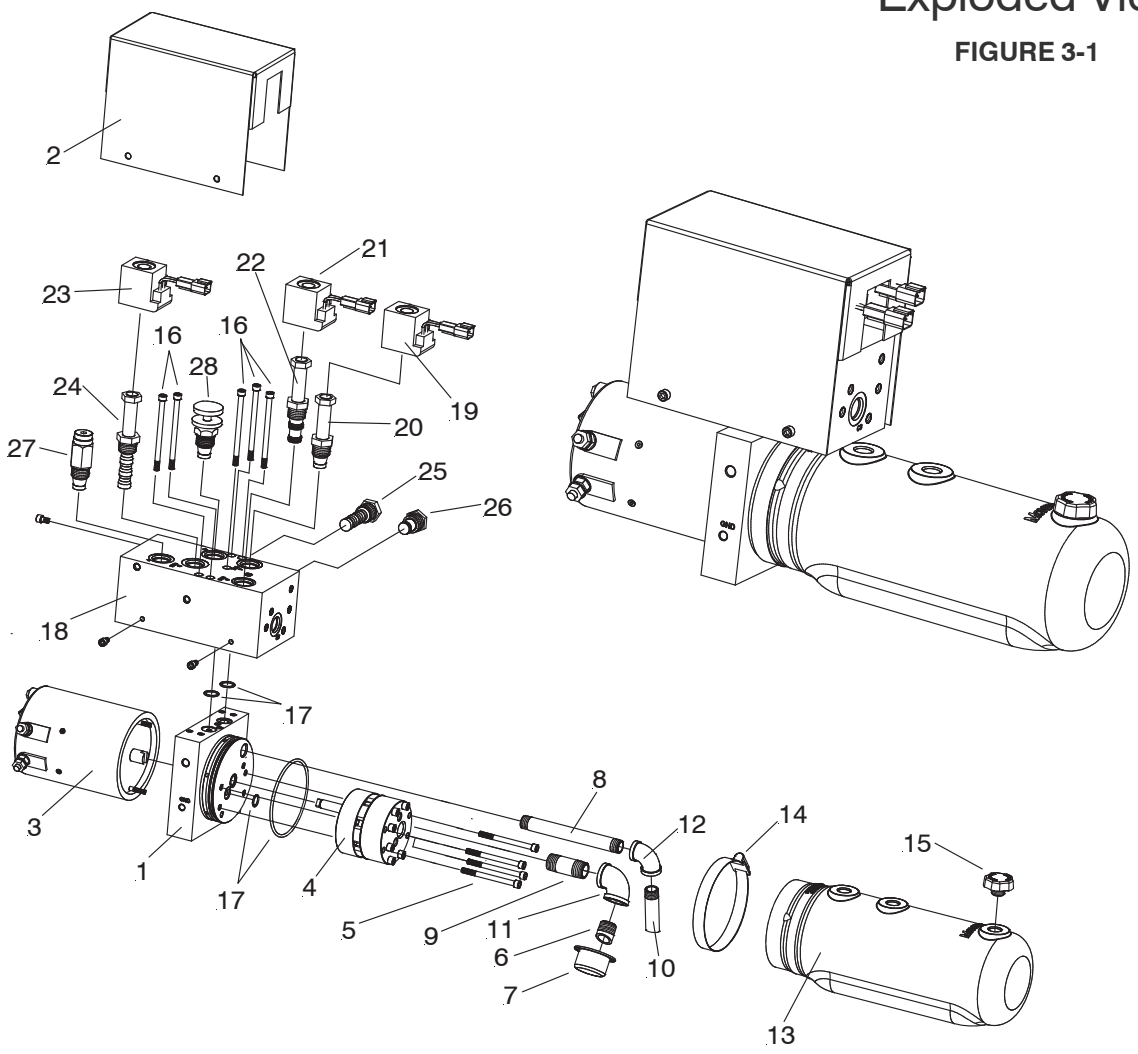
ITEM	E-70 12V	E-70 24V	QTY	DESCRIPTION
18	15068	15151	1	• **Valve Block Assy.(12V)**
	15085	15136	1	•• **"A" Solenoid Assembly**
19	15078	15137	1	••• "A" Coil (12V) (Black Wire)
20	15074	15074	1	••• "A" Cartridge Valve
	15086	15138	1	•• **"B" Solenoid Assembly**
21	15079	15139	1	••• "B" Coil (12V) (Redc Wire)
22	15075	15075	1	••• "B" Cartridge Valve
	15087	15140	1	•• **"C" Solenoid Assembly**
23	15080	15141	1	••• "C" Coil (12V) (Green Wire)
24	15081	15081	1	••• "C" Cartridge Valve
25	15071	15071	1	• Dual Port Check Valve Cartridge
26	15073	15073	1	• Check Valve Cartridge (15 PSI)
27	15076	15076	1	• Relief Valve
28	15077	15077	1	• Needle Valve Cartridge (Lower Adj.)

Parts indented are included in assembly under which they are indented.

Pump Relief Valve @ 1750 P.S.I. full flow. **Non Adjustable**
Cross-Over Relief Valve @ 2000 P.S.I. full flow. **Non Adjustable**

E-70
Exploded View

FIGURE 3-1



E-70 Raise, Motor and “B” Solenoid

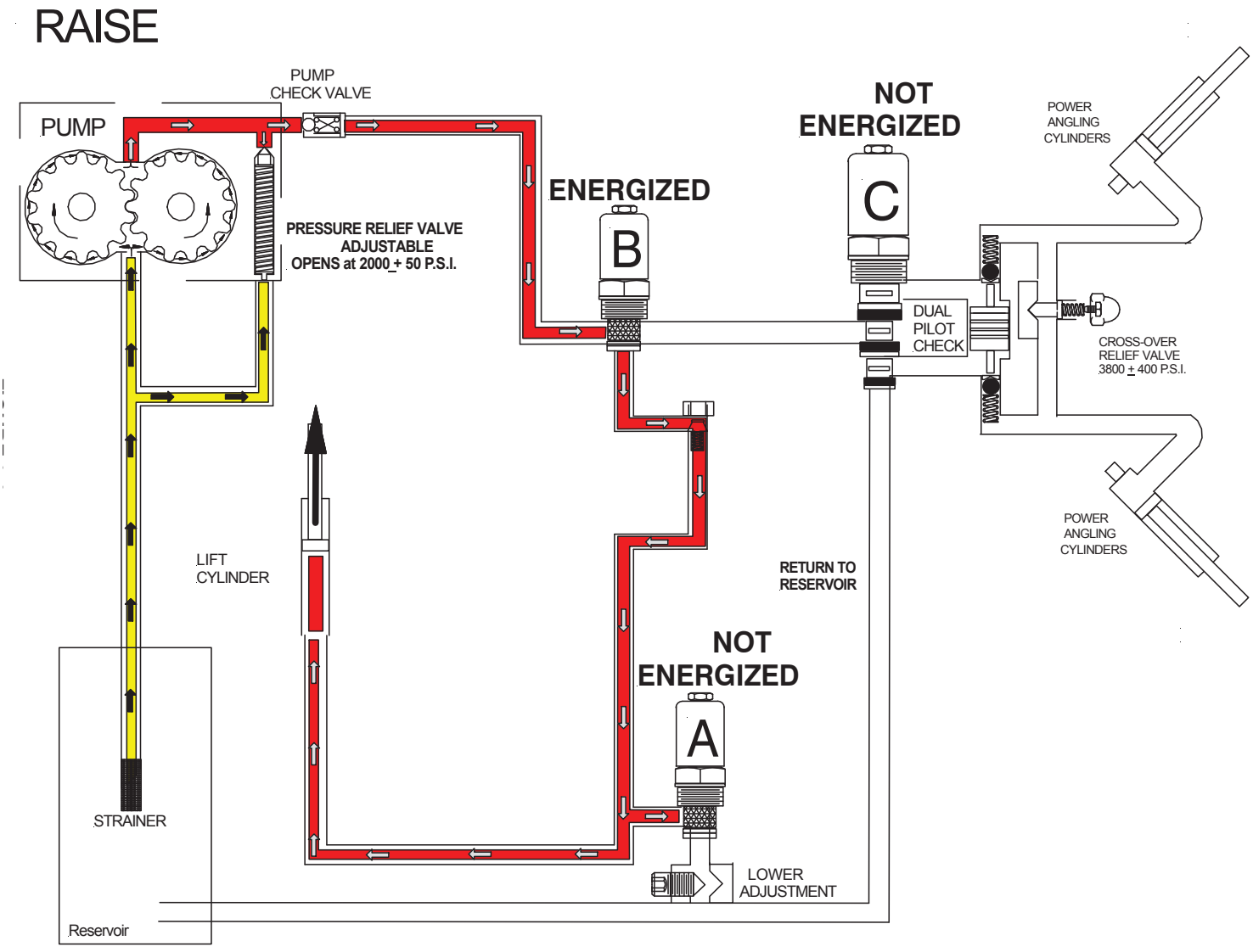


FIGURE 1-1

70 Lower, “A” Solenoid

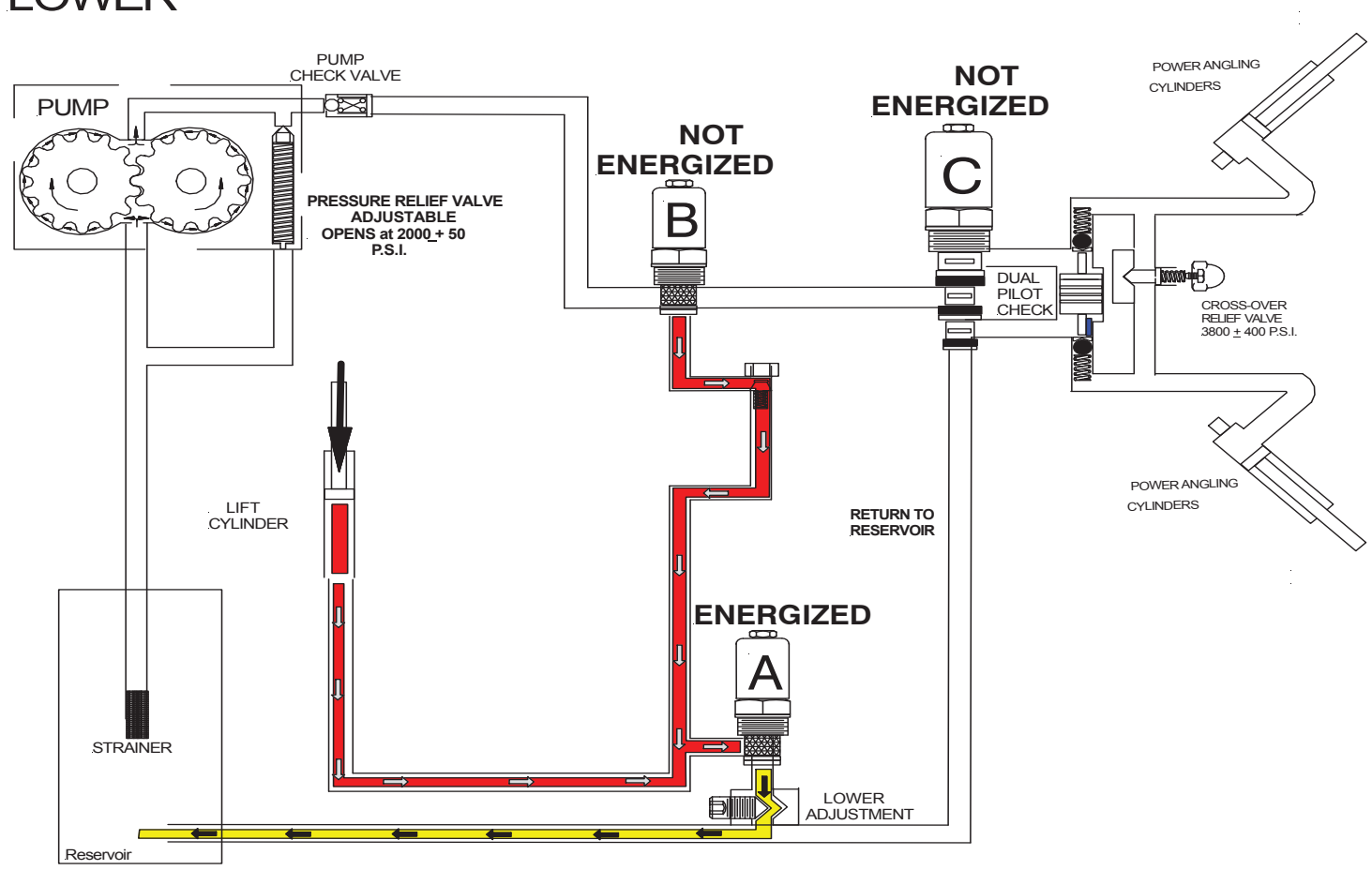


FIGURE 1-2

E-70 Angle Left, Motor only

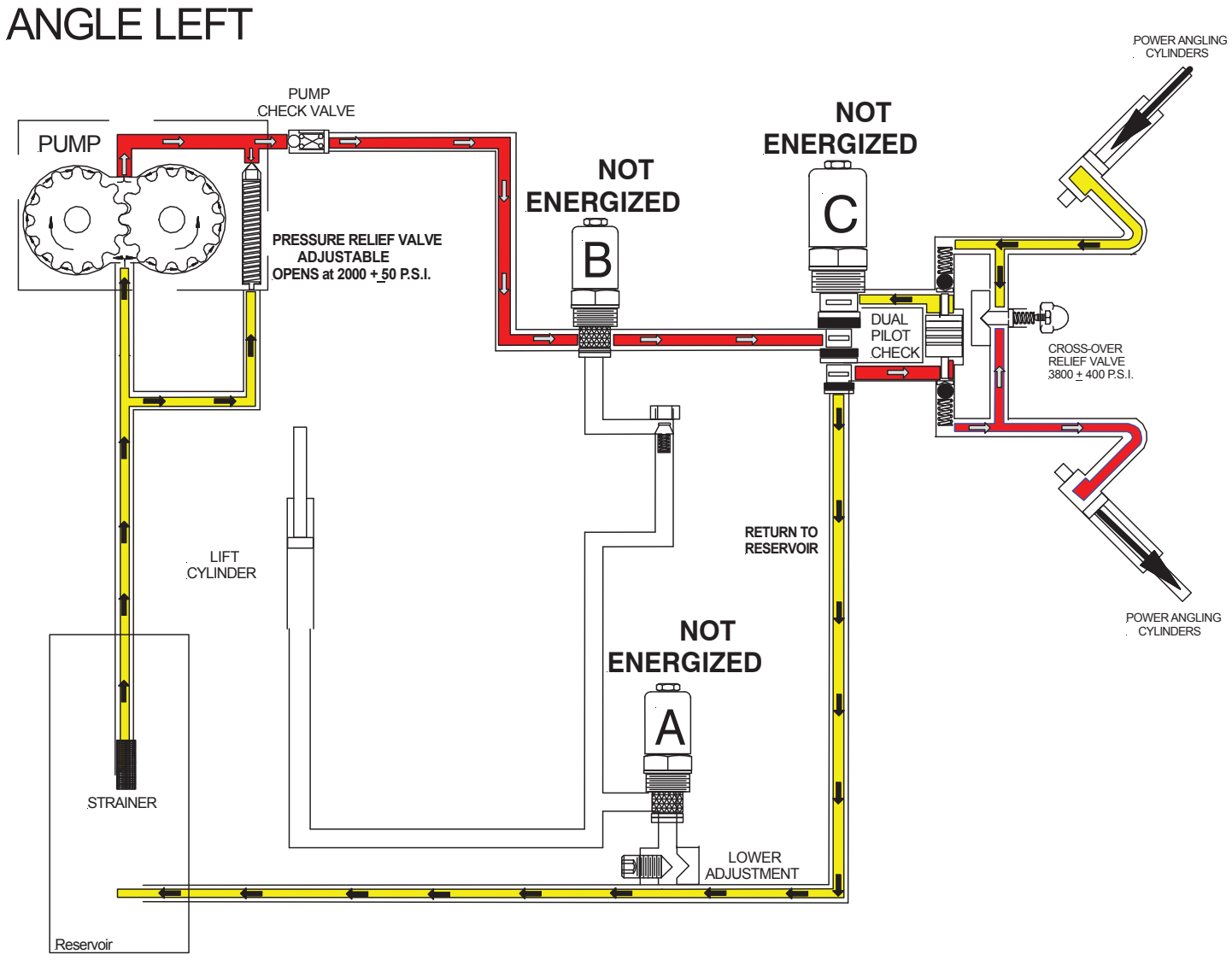


FIGURE 1-3

E-70 Angle Right, Motor and “C” Solenoid

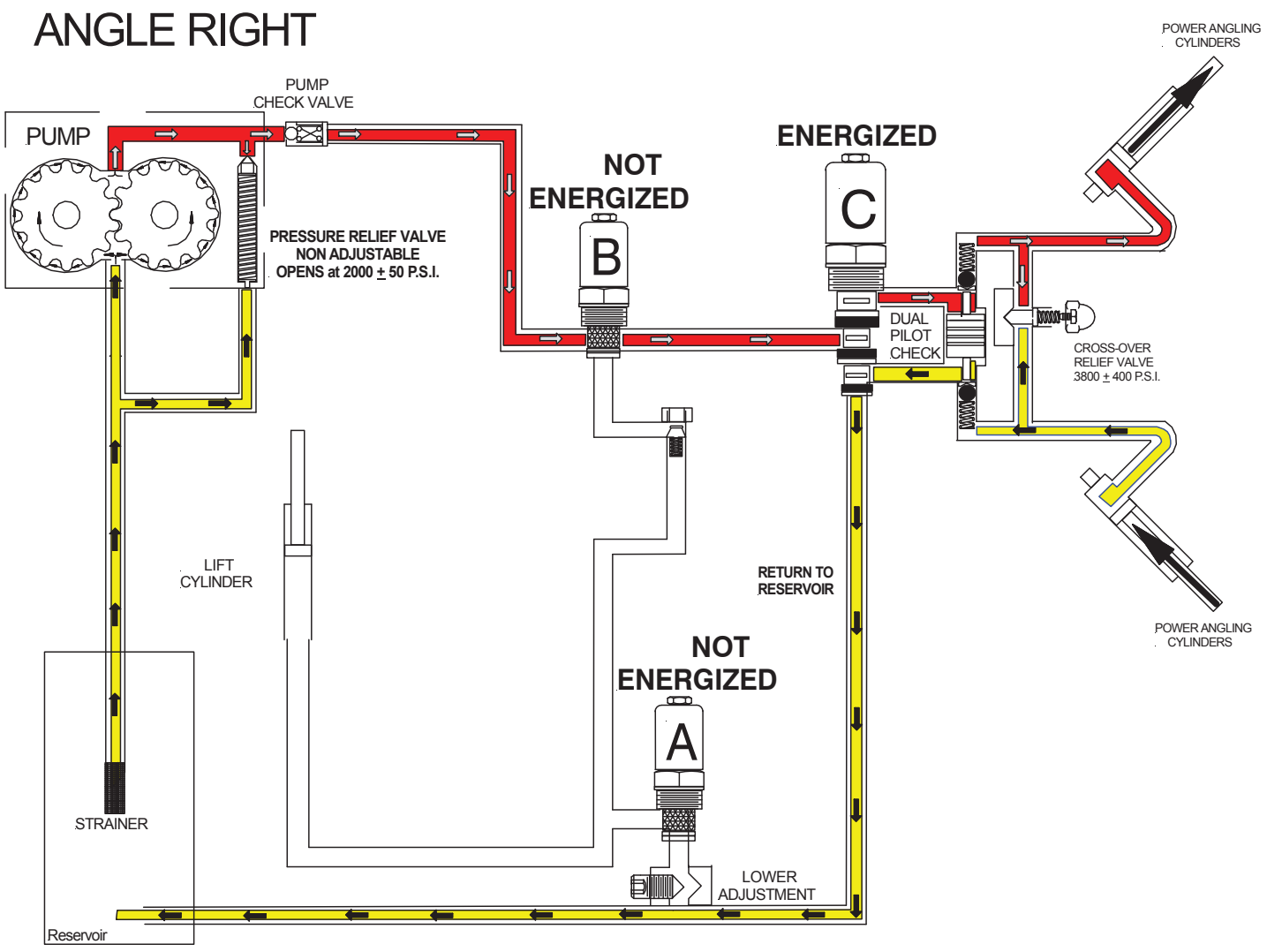


FIGURE 1-4

DIAGNOSTIC FLOW CHART FOR E-70 Unit

These charts are intended to be used as an aid in diagnosing problems on the E-70 unit. They are not a substitute for factory training and experience. Be certain to read the General Information and Testing Tips sections before attempting any troubleshooting.

IMPORTANT: Maintenance and repairs must be performed with the moldboard on the ground.

General Information

Before any troubleshooting is started, make certain the following conditions are met.

1. The moldboard is pointing straight ahead. This can often be done by coupling the left cylinder into the right cylinder and pushing the moldboard by hand.
2. The power angling cylinders must be installed correctly on to the plow assembly. The left cylinder (Driver's side) has a hose attached with a female half of a coupler at the end; the right cylinder (Passenger side) has a hose attached with a male half of a coupler at the end.
3. The solenoid wires must be on their proper coil. The "A" coil (black and tan wires) on power angling block labeled "BLK". The "B" coil (red and tan wires) on power angling block labeled "RED". The "C" coil (green and tan wires) on power angling block labeled "GRN".

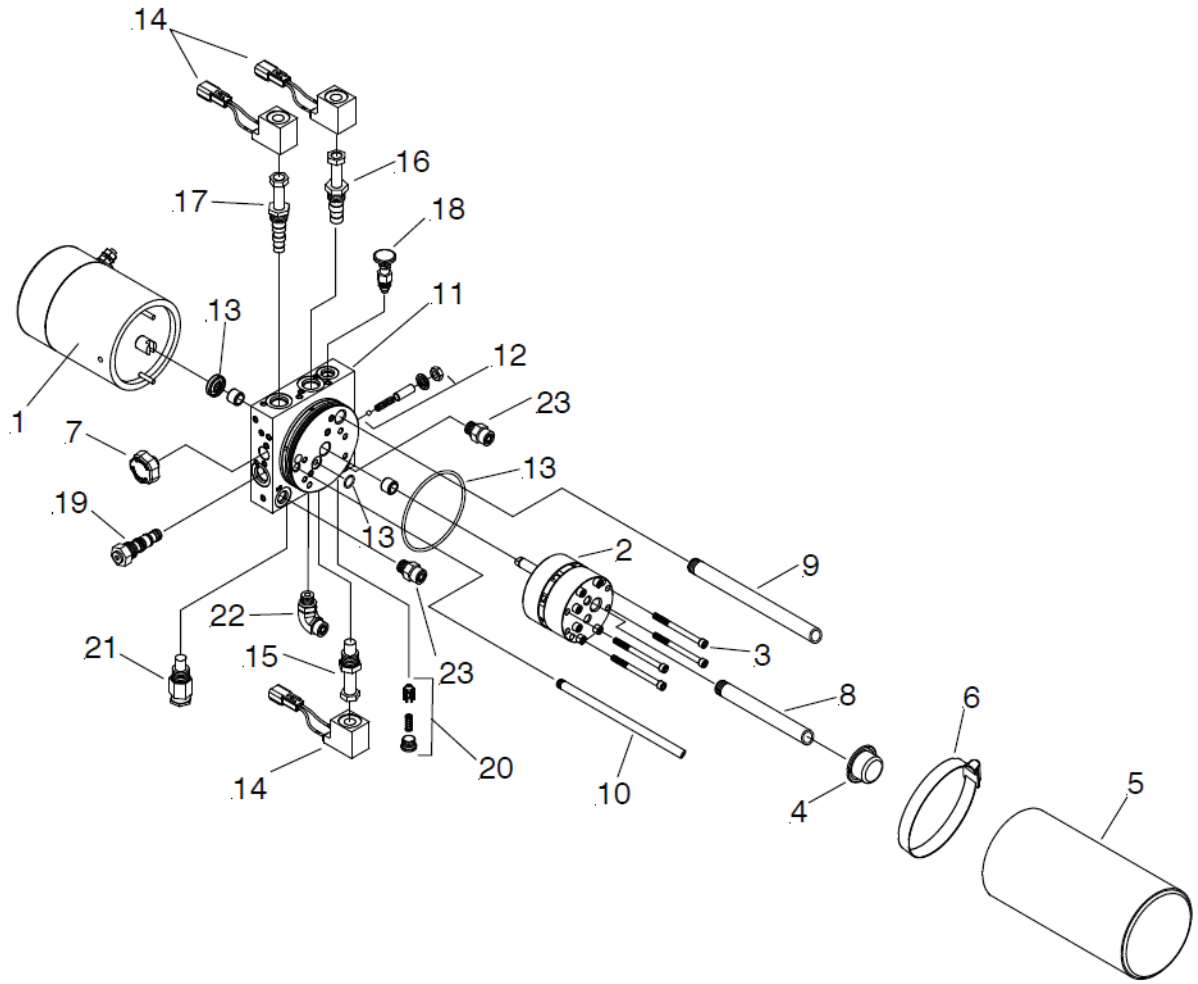
TESTING TIPS

Many tests do not require removing the Electro Lift® unit from the vehicle. However, more thorough testing can be performed using the Meyer Test Stand which allows direct pressure and amperage readings.

1. Using a screwdriver or other small tool to check for magnetism of the solenoid coils "A", "B" and "C". Place the tool on the nut securing the coil and have an assistant operate the switch. You should feel strong magnetic attraction.
2. Use a test light or volt meter to determine whether there is power at the harness.
3. When determining AMP draw of the motor, always obtain the highest value possible, i.e, at maximum raise or maximum angle with motor running.
4. The pump shaft of a good pump can be turned smoothly using two fingers. If it can't be turn easily, the pump is too tight and must be replaced.
5. Pump pressure can be measured at an angle hose (note pressure at full angle).
6. Flush the complete system including unit, hoses and power angling rams with Meyer Hydra-Flush™ Fluid M-2.

The controller is self diagnosing. The monitor light is located in the upper left corner next to the float light of the control switch. When the monitor light turns on and begins to flash the control switch is sensing a problem with a specific coil/connection on the hydraulic unit. The label below is on the back side of your control switch. Reset is accomplished by turning off the ignition switch or by turning the power switch off momentarily and then back on. If the monitor light is still illuminated after attempts to reset the switch have failed, contact your nearest authorized Meyer Distributor for repairs.

E72 Hydraulic Unit



ITEM	PART	QTY	DESCRIPTION
	16006	1	E72 Lift Assembly (Unit Only)
1	15070	1	• Motor (2 Terminal)
2	15097	1	• Pump Assembly
3	15083	4	• Allen Head Screw 1/4-20 x 3"
4	15101	1	• Pump Filter Assy.
5	15169	1	• Reservoir
6	15066	1	• Reservoir Clamp
7	15067	1	• Reservoir Breather
8	15100	1	• Oil Pick up Tube 5-3/4"
9	15099	1	• Oil Return Tube 8"
10	15180	1	• Oil Return Tube 8"
11	15175	1	• Base Assembly

ITEM	PART	QTY	DESCRIPTION
12	15121	1	• Adjustable Relief Valve
13	15082	1	• Seal Kit (All Seals)
14	15150	3	• Coil (12V)
15	15146	1	• "A" Cartridge Valve
16	15117	1	• "B" Cartridge Valve
17	15111	1	• "C" Cartridge Valve
18	15165	1	• Kit Needle Valve (Lower Adj.)
19	15148	1	• Kit Dual PO Check Valve
20	15152	1	• Kit Check Valve Assembly
21	15179	1	• Kit Relief Valve Assy. 3000 p.s.i.
22	22866	1	• 90 degree elbow fitting
23	22868	2	• Straight Fitting

Note: The E72 and E73 hydraulic functions are the same, though the layout is different. E72 is vertical while E73 is horizontal. Their flow charts are the same.

E72 & E73 Hydraulic Unit

E72 & E73 - Raise Motor and "B" Solenoid

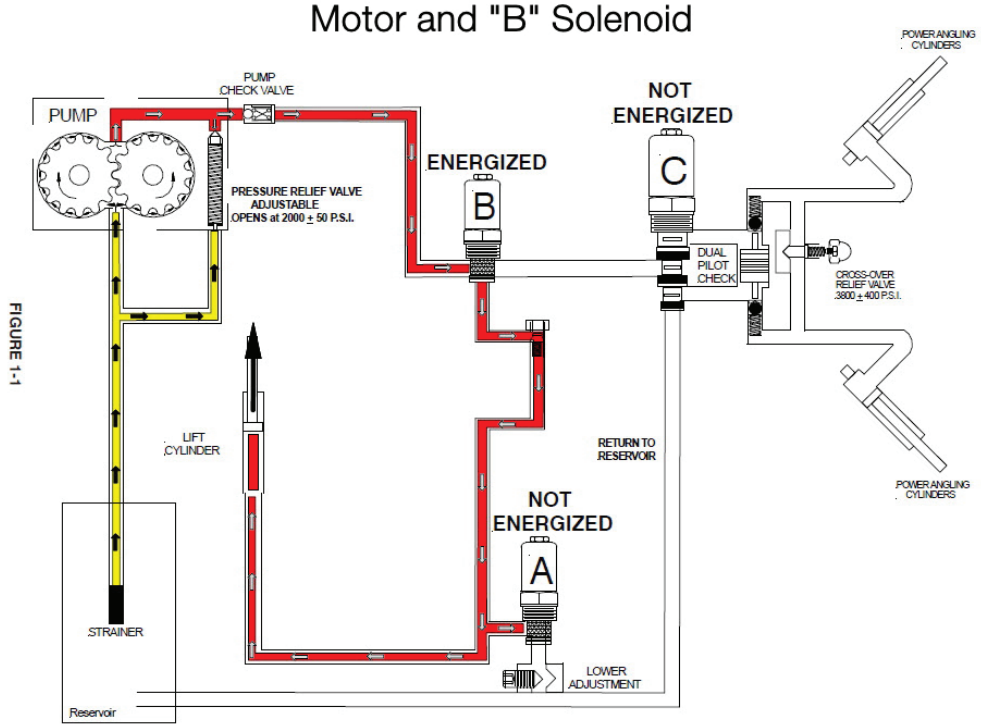


FIGURE 1-1

E72 & E73 - Lower "A" Solenoid

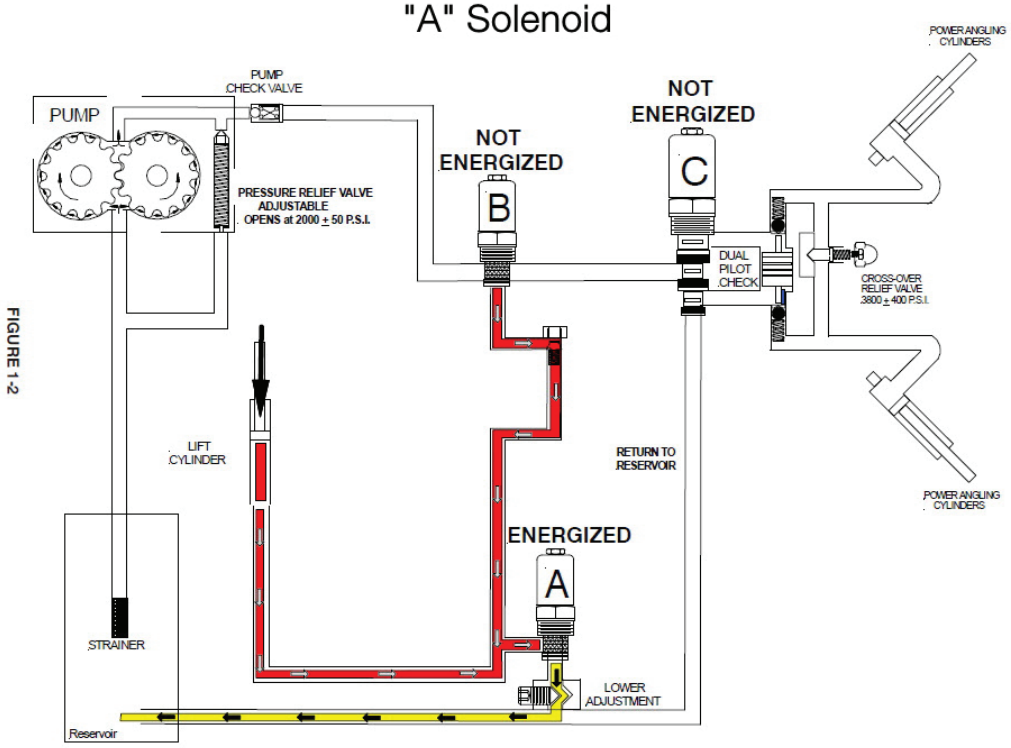


FIGURE 1-2

E72 & E73 Hydraulic Unit

E72 & E73 - Angle Left Motor Only

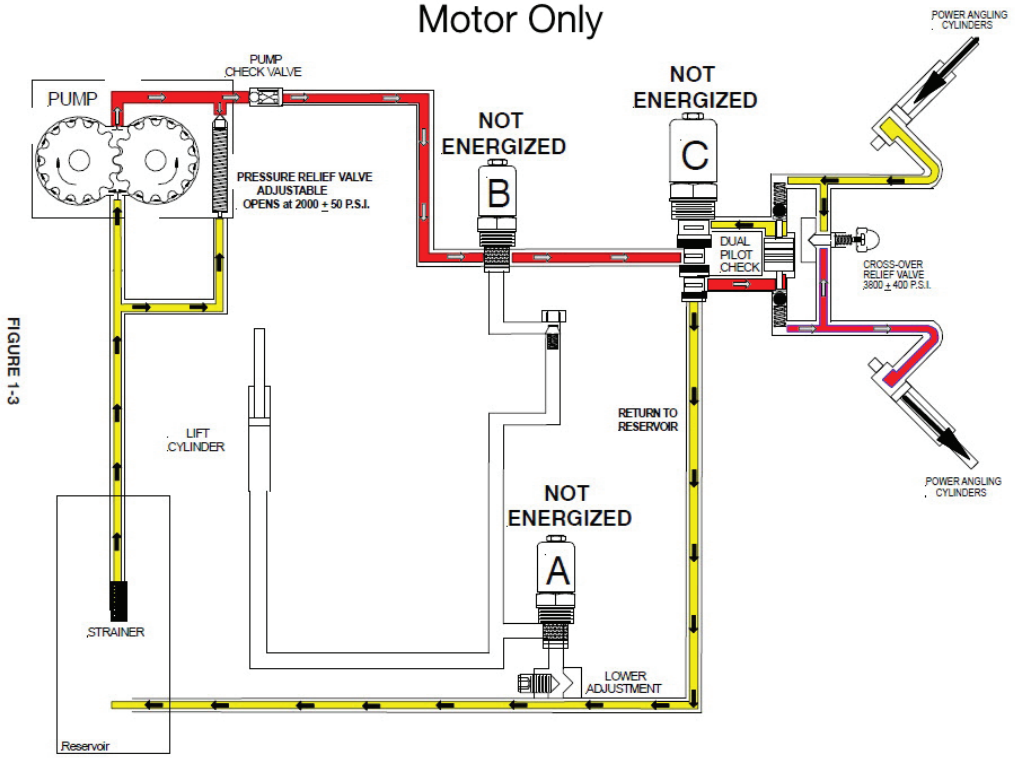


FIGURE 1-3

E72 & E73 - Angle Right Motor and "C" Solenoid

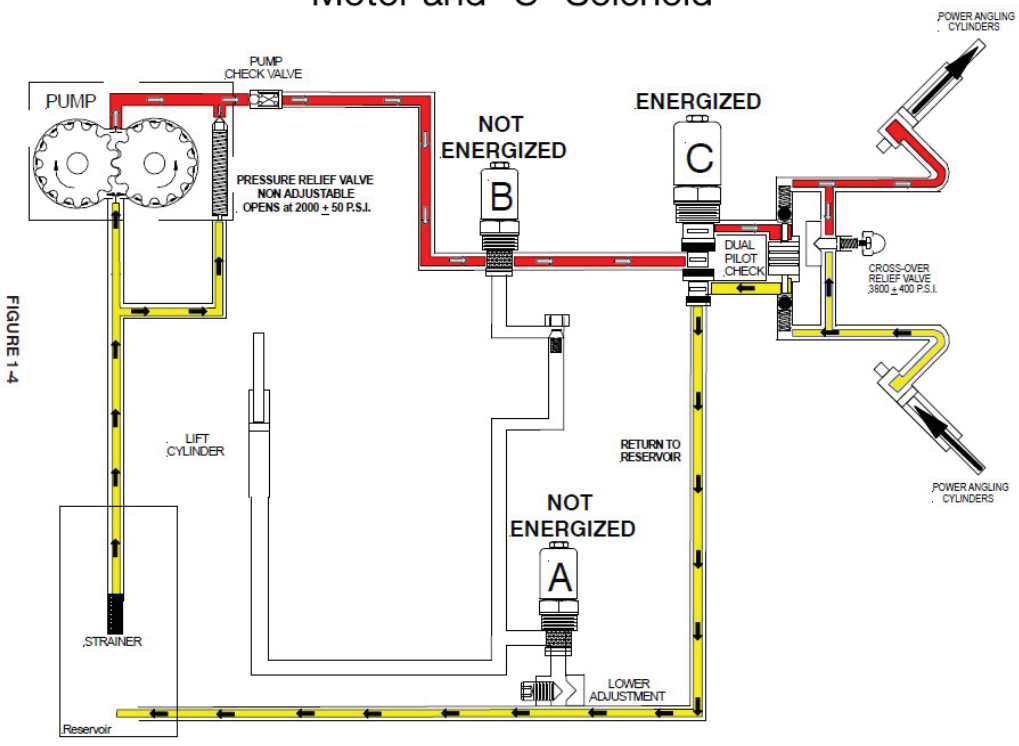
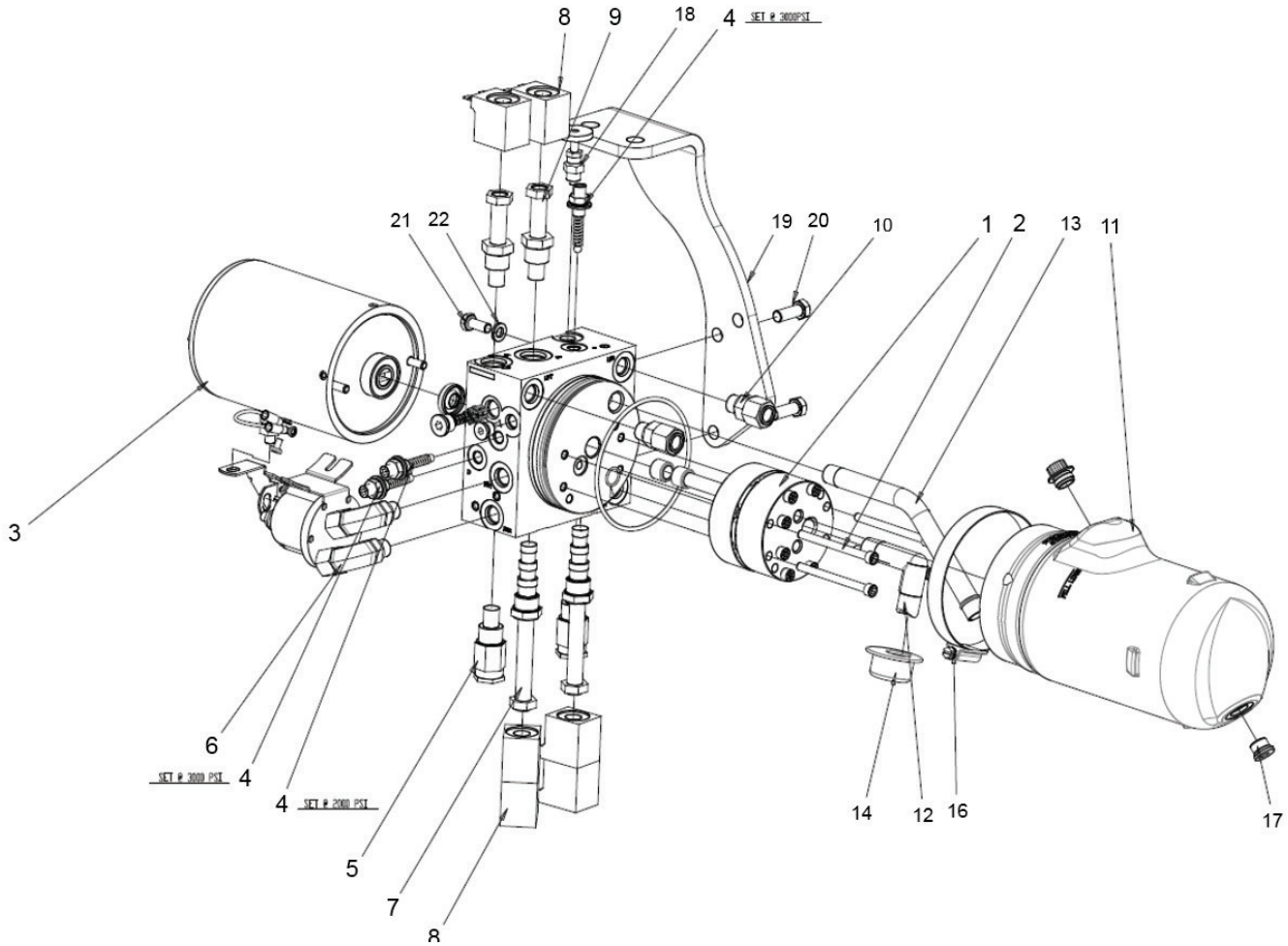


FIGURE 1-4

V73 Hydraulic Unit



ITEM	V73	QTY	DESCRIPTION
	16027	1	V73 Lift Assembly (Unit Only)
1	15211	1	• Pump Assembly
2	15083	4	• Allen Head Screw 1/4-20 x 3"
3	15212SP	1	• Motor (2 Terminal)
4	15121	3	• Adjustable Relief Valve
5	15116	2	• Relief Valve
6	22866	2	• 90 degree elbow fitting
7	15228	2	• V73 4 Way Solenoid Valve
8	15215	6	• Coil (12V)
9	15146	2	• "S1" Cartridge Valve
10	22868	3	• Straight Fitting 3/8" SAE
11	15229	1	• V73 Reservoir

ITEM	V73	QTY	DESCRIPTION
12	15230	1	• V73 Suction Tube 3/8"
13	15231	1	• V73 Return Tube 3/8"
14	15101	1	• Pump Filter Assy.
15	15067	1	• Plastic Breather
16	15066	1	• Reservoir Clamp
17	15104	1	• Plug
18	15217	1	• Kit Needle Valve (Lower Adj.)
19	*14395	1	• Horizontal Hydraulic Bracket
20	20049	2	• Bolt H 3/8-16 x 1"
21	20025	1	• Bolt H 5/16-18 x 3/4"
22	20326	1	• W/L Spr Med 5/16

*No Longer Available

PARTS & INSTALLATION INSTRUCTIONS
E-73 ELECTRO-LIFT® UNIT

PARTS LIST

ITEM	E-73 12V	QTY	DESCRIPTION
	16028	1	**Lift Assembly (Unit Only)**
1	15212SP	1	• Motor (2 Terminal)
2	15211	1	• Pump Assembly
3	15083	4	• Allen Head Screw 1/4-20 x 3"
4	15101	1	• Pump Filter Assy.
5	15223	1	• Reservoir w/Drain Plug
6	15066	1	• Reservoir Clamp
7	15187	1	• Reservoir Breather
8	-----	1	• Oil Pick up Tube 5-3/4"
9	-----	1	• Oil Return Tube 8"
10	-----	1	• Oil Return Tube 8"
11	-----	1	• Base Assembly
12	15121	1	• Adjustable Relief Valve
13	15214	1	• Seal Kit (All Seals)
14	15215	3	• Coil (12V)
15	15146	1	• "A" Cartridge Valve
16	15117	1	• "B" Cartridge Valve
17	15111	1	• "C" Cartridge Valve
18	15217	1	• Kit Needle Valve (Lower Adj.)
19	15216	1	• Kit Dual PO Check Valve
20	15152	1	• Kit Check Valve Assembly
21	15218	1	• Adjustable Relief Valve
22	22866	1	• 90 degree elbow fitting
23	*14185	1	• Mounting Bracket
24	20049	2	• Bolt H 3/8-16 x 1"
25	20025	1	• Bolt H 5/16-18 x 3/4"
26	20326	1	• Lockwasher
27	15220	1	• Motor Solenoid

Parts indented are included in assembly under which they are indented.
*No Longer Available

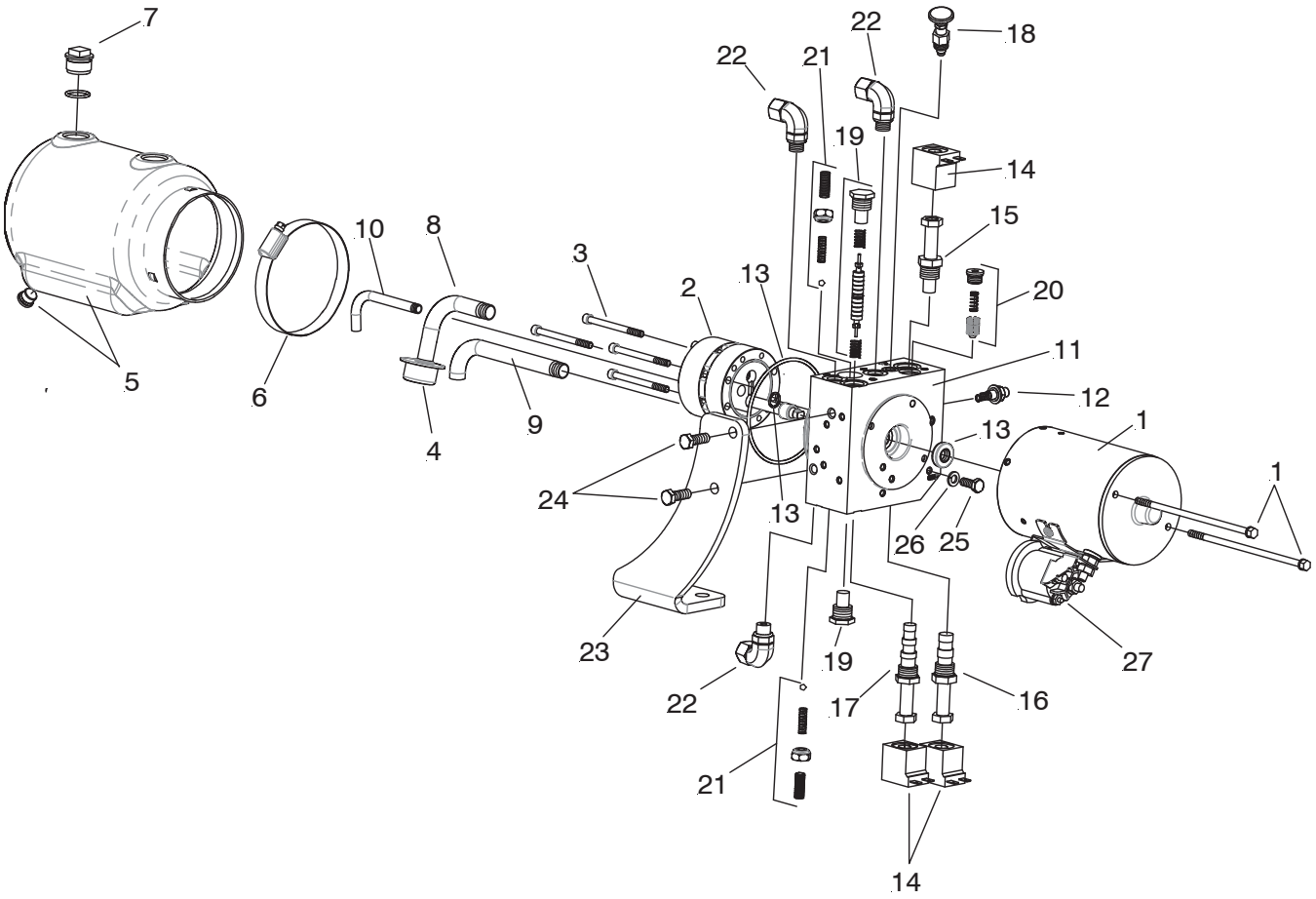
E-73 PARTS BREAKDOWN

Hydraulic Solenoid Color Code:

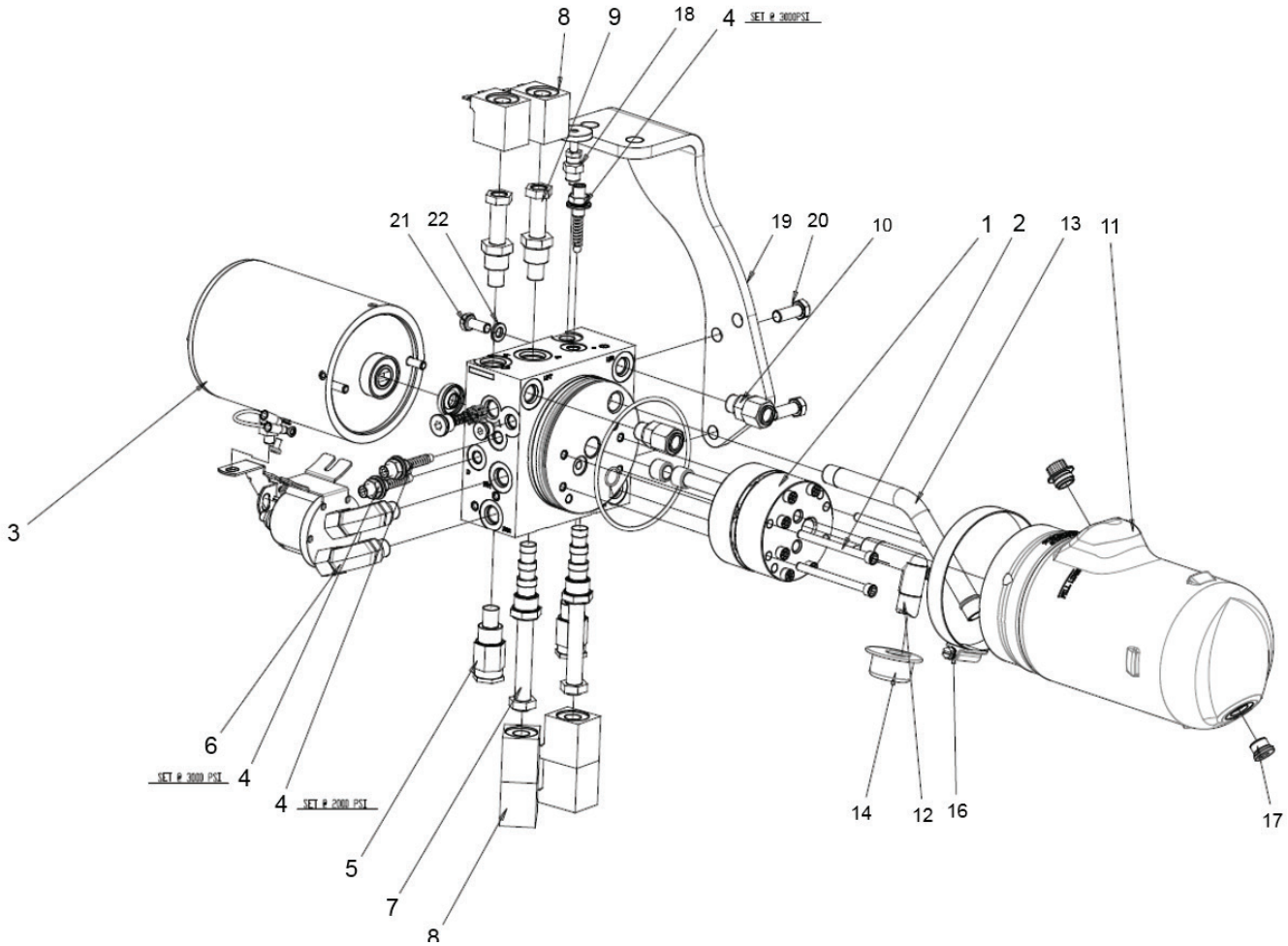
OPERATION - SOLENOID COMBINATION
RAISE - Motor Solenoid + B
LOWER - A
LEFT ANGLE - Motor Solenoid Only

RIGHT ANGLE - Motor Solenoid + C

COIL COLOR CODE
MOTOR SOLENOID - WHITE WIRE
A - BLACK WIRE
B - RED WIRE
C - GREEN WIRE
GROUND WIRE EACH COIL BLACK W/WHITE STRIPE



V73 Hydraulic Unit

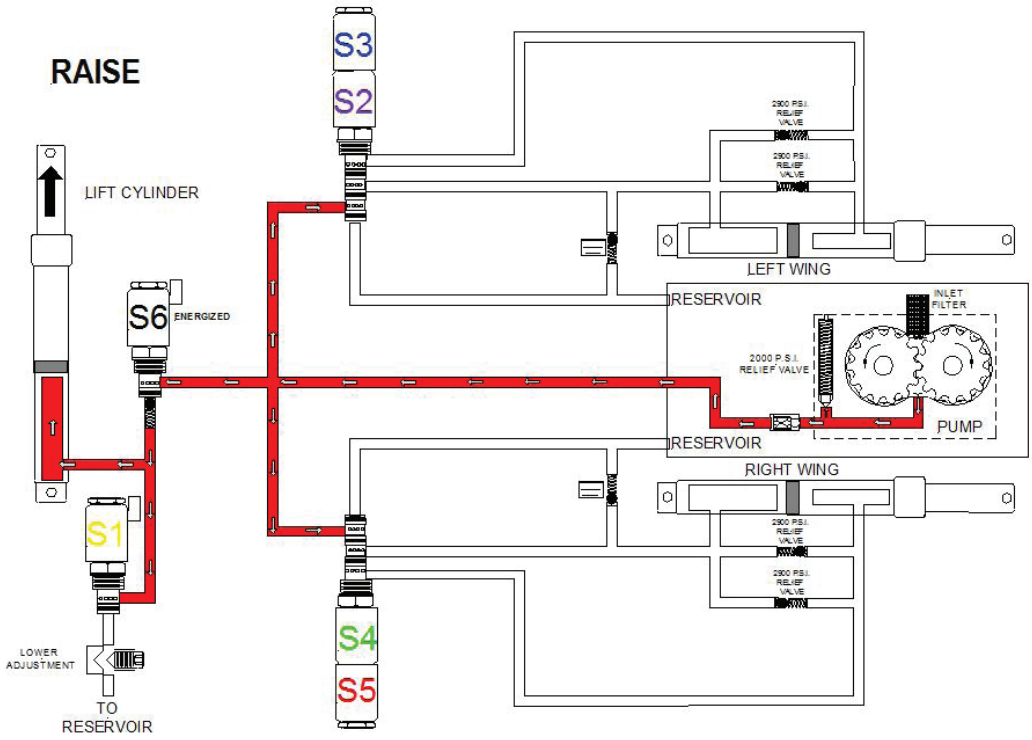


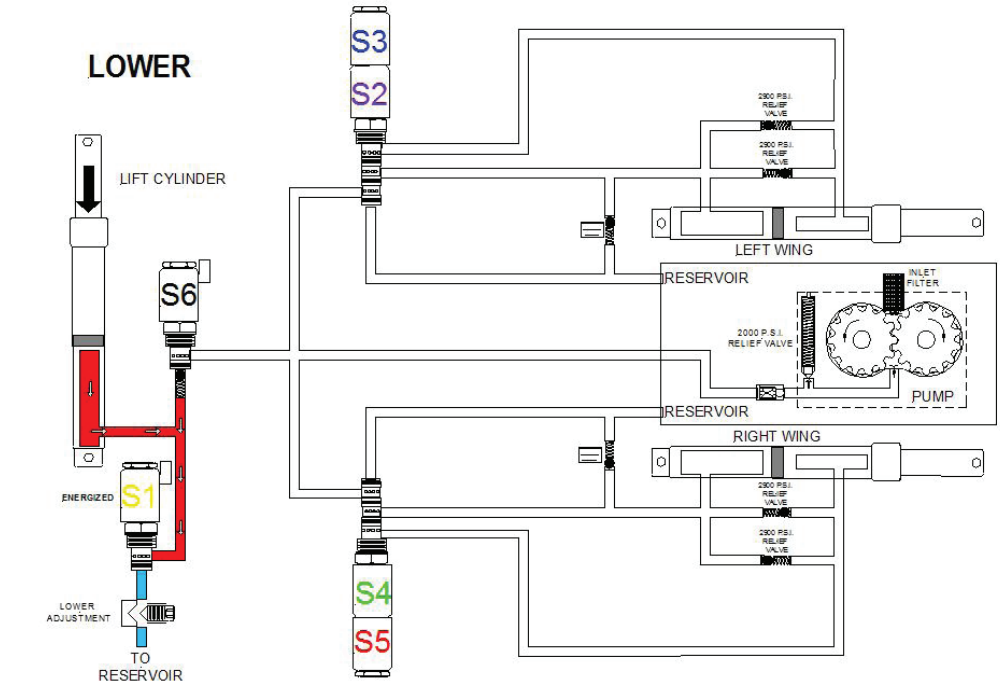
ITEM	V73	QTY	DESCRIPTION
	16027	1	V73 Lift Assembly (Unit Only)
1	15211	1	• Pump Assembly
2	15083	4	• Allen Head Screw 1/4-20 x 3"
3	15212SP	1	• Motor (2 Terminal)
4	15121	3	• Adjustable Relief Valve
5	15116	2	• Relief Valve
6	22866	2	• 90 degree elbow fitting
7	15228	2	• V73 4 Way Solenoid Valve
8	15215	6	• Coil (12V)
9	15146	2	• "S1" Cartridge Valve
10	22868	3	• Straight Fitting 3/8" SAE
11	15229	1	• V73 Reservoir

ITEM	V73	QTY	DESCRIPTION
12	15230	1	• V73 Suction Tube 3/8"
13	15231	1	• V73 Return Tube 3/8"
14	15101	1	• Pump Filter Assy.
15	15067	1	• Plastic Breather
16	15066	1	• Reservoir Clamp
17	15104	1	• Plug
18	15217	1	• Kit Needle Valve (Lower Adj.)
19	*14395	1	• Horizontal Hydraulic Bracket
20	20049	2	• Bolt H 3/8-16 x 1"
21	20025	1	• Bolt H 5/16-18 x 3/4"
22	20326	1	• W/L Spr Med 5/16

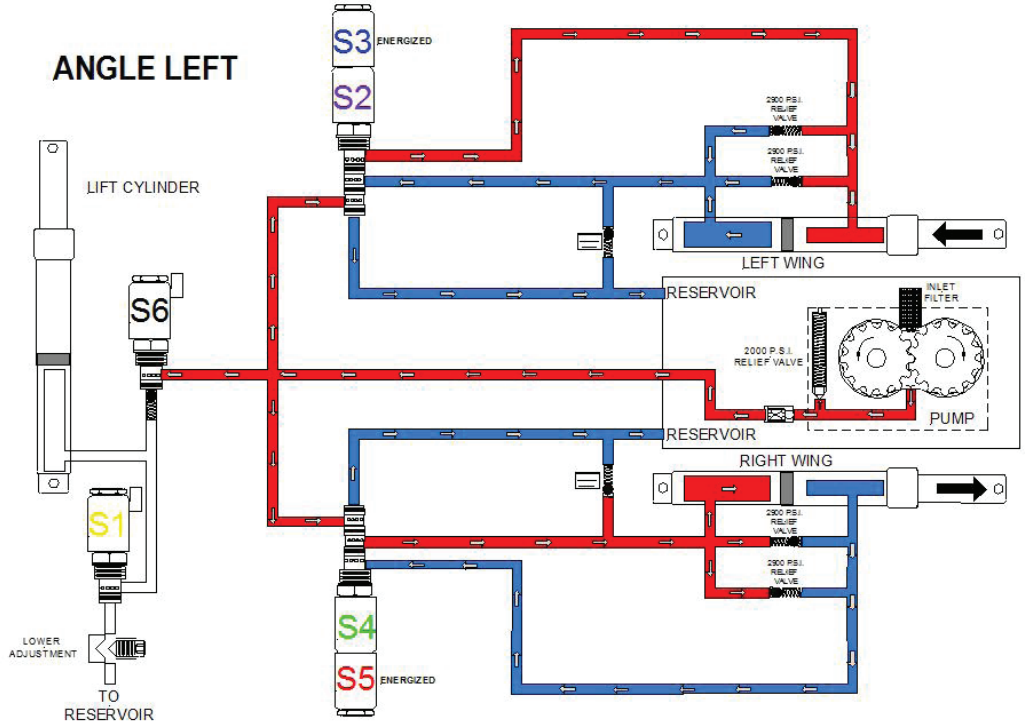
*No Longer Available

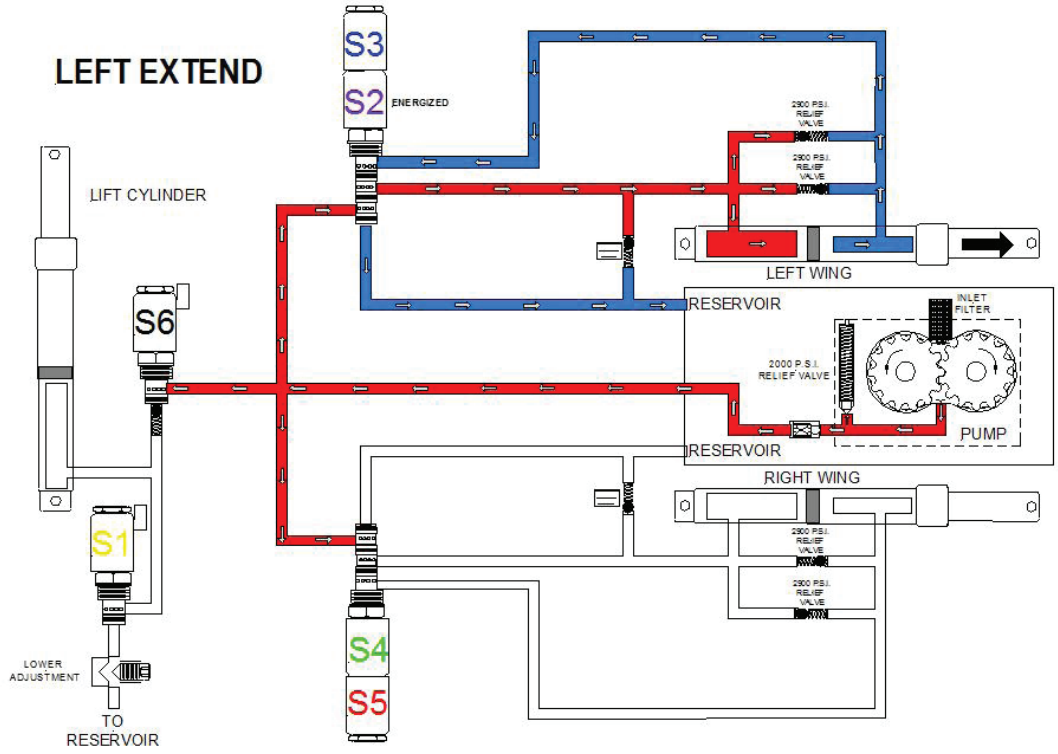
V73 Hydraulic Unit



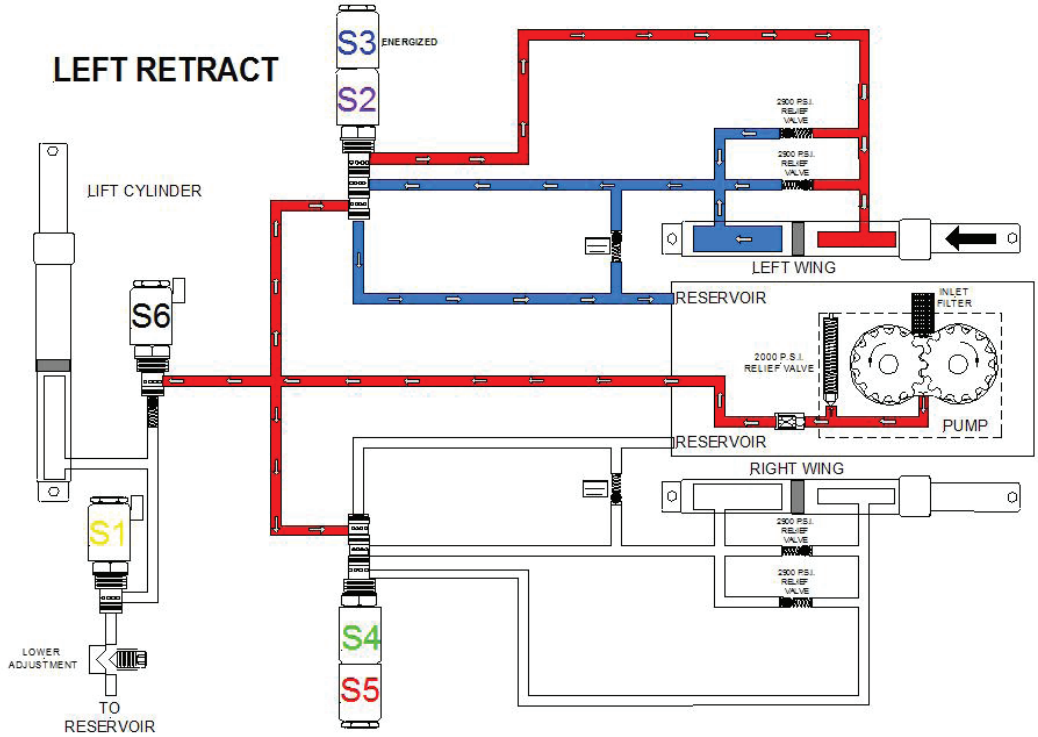


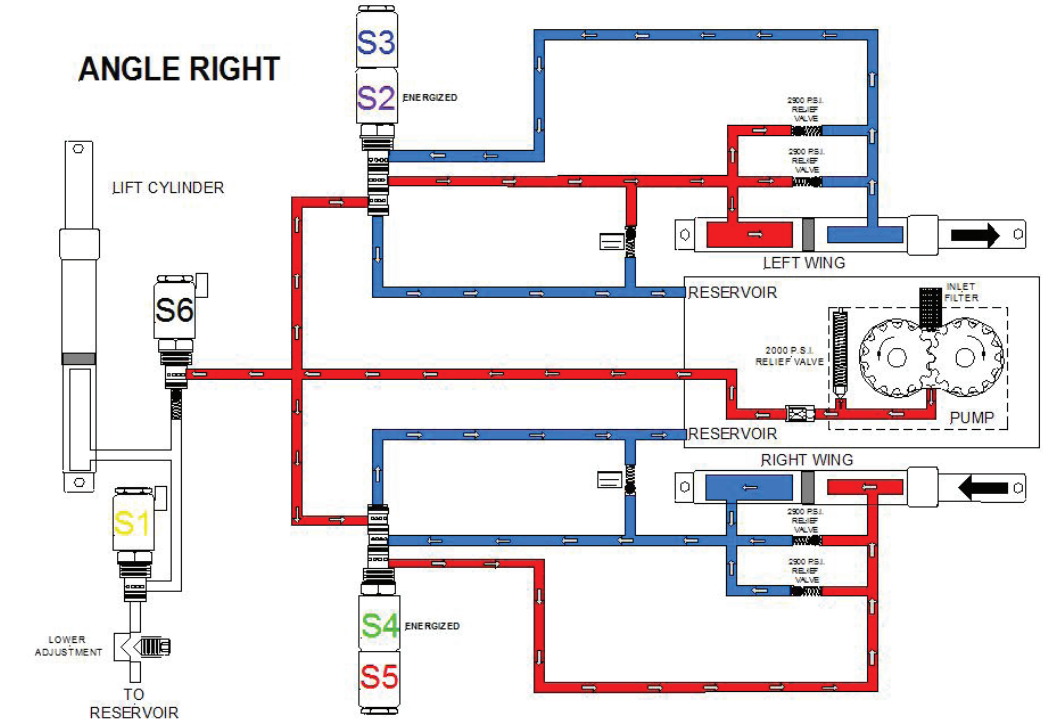
V73 Hydraulic Unit



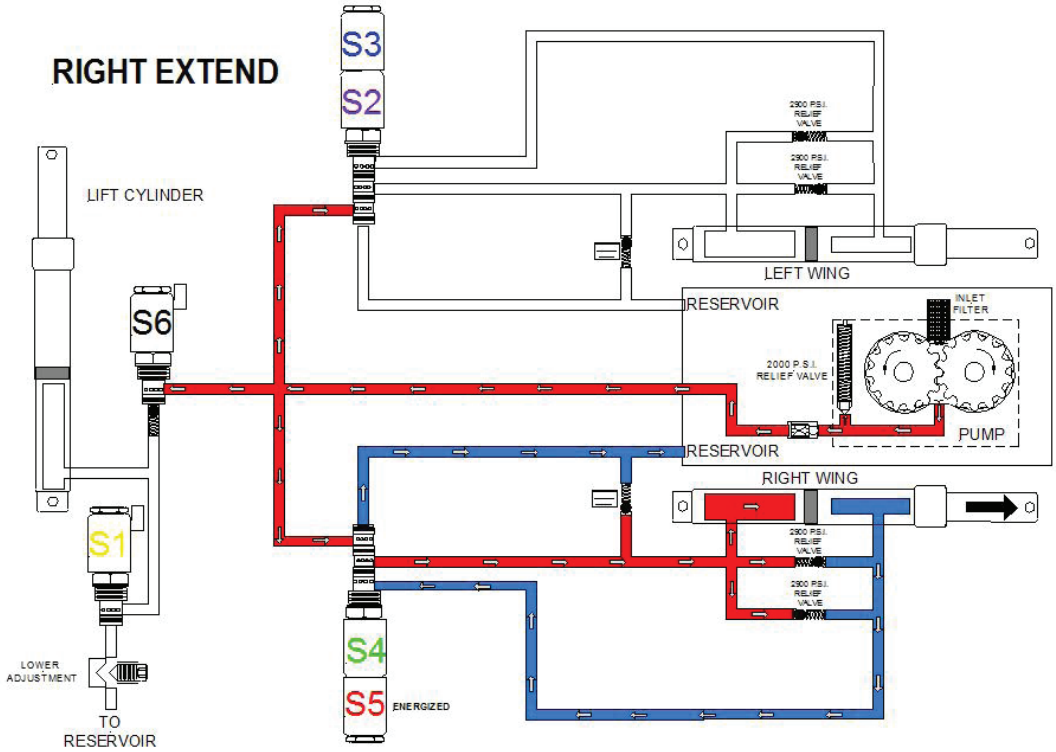


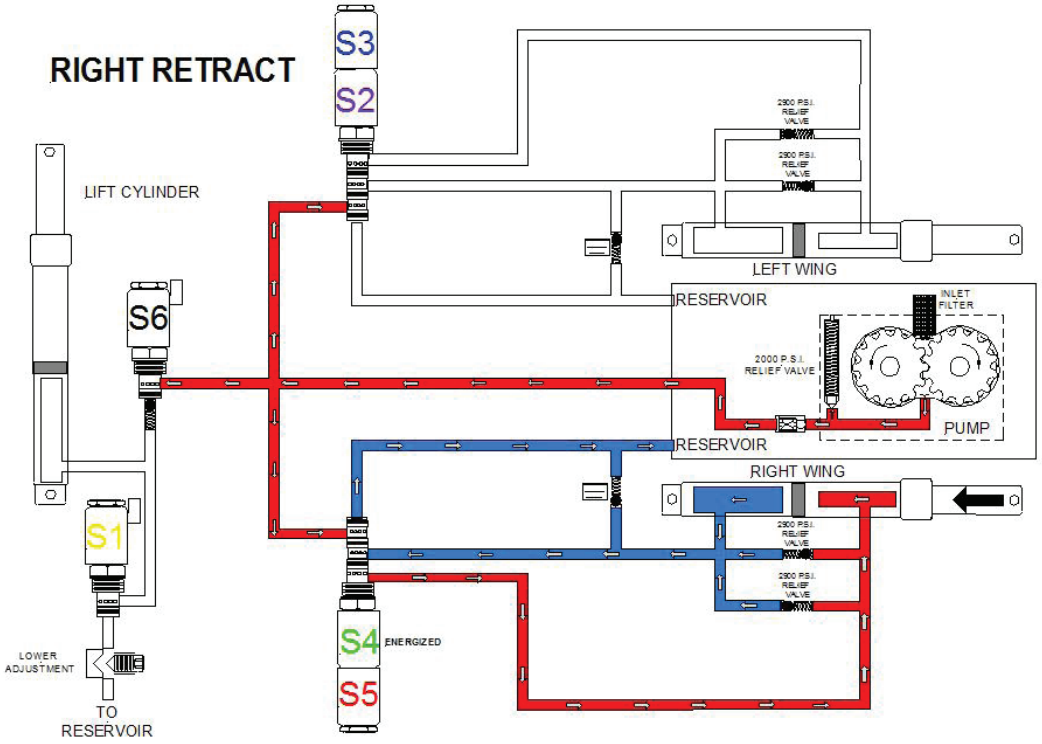
V73 Hydraulic Unit



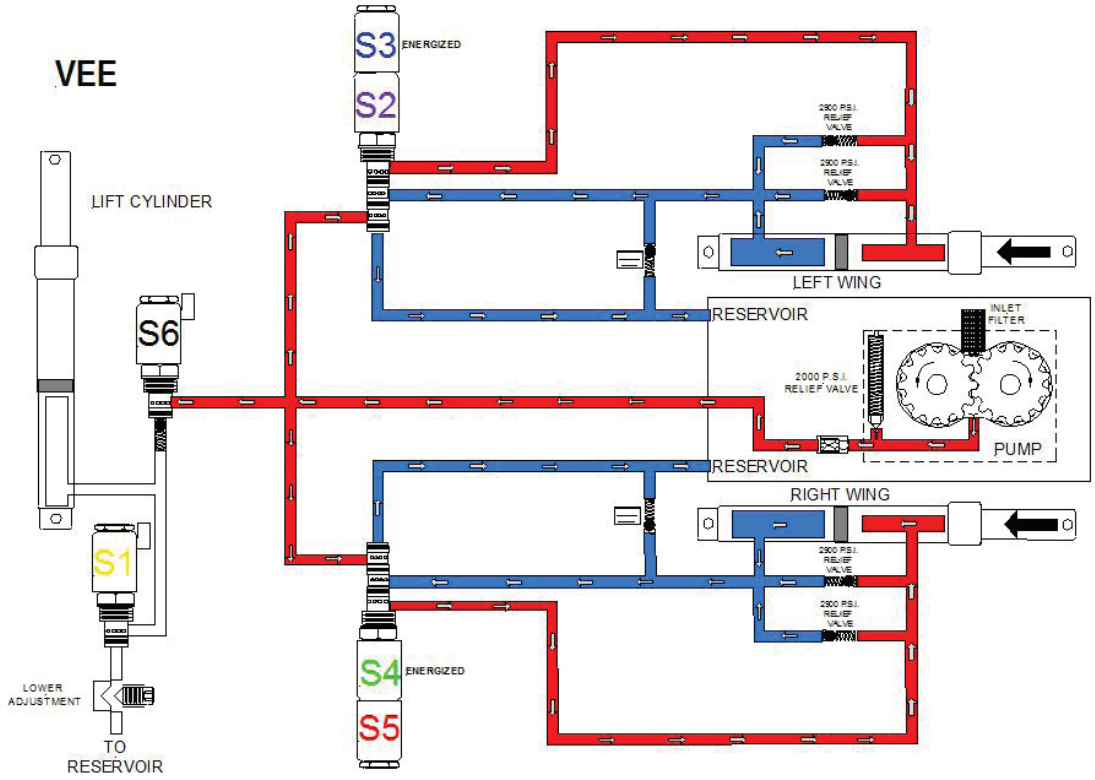


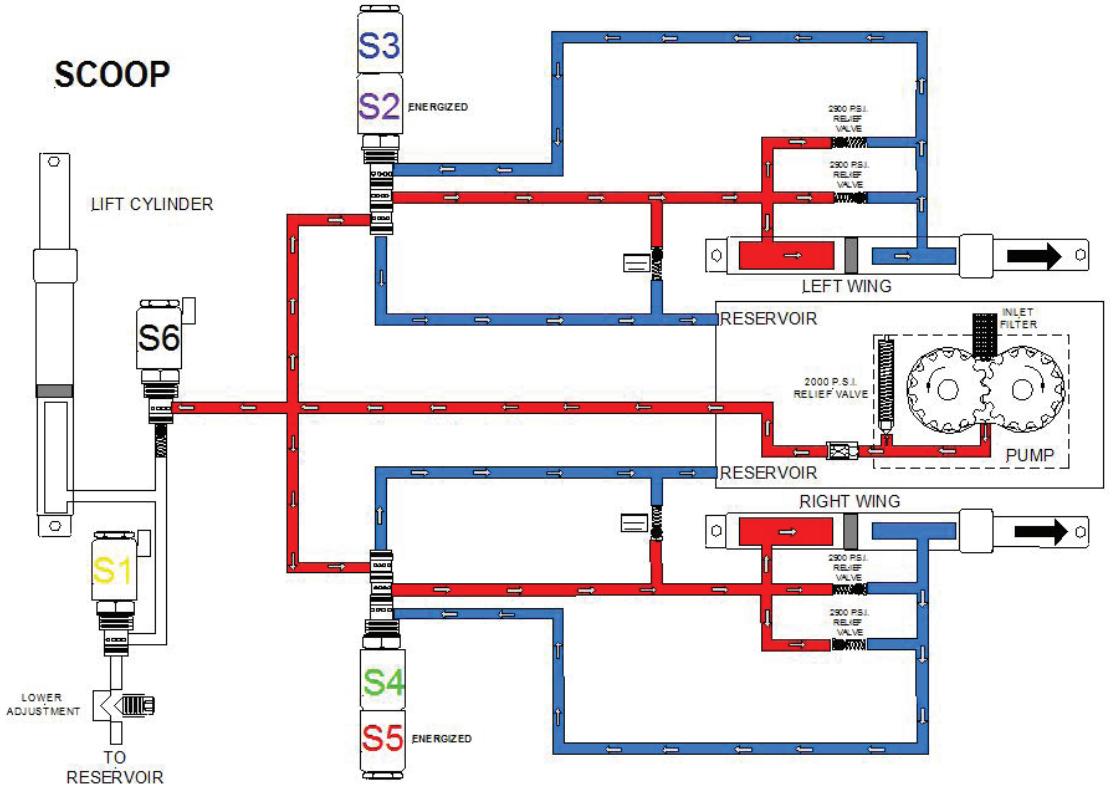
V73 Hydraulic Unit



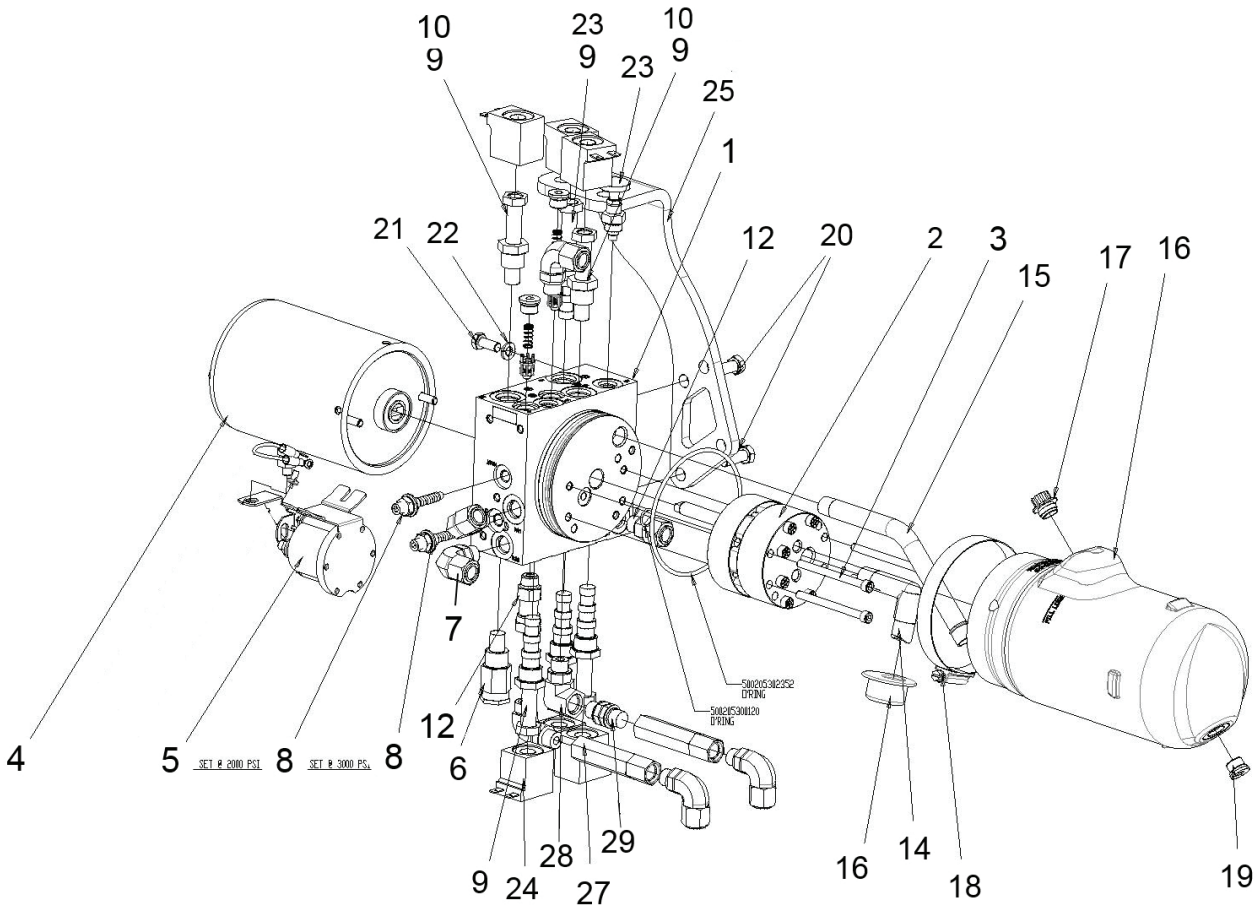


V73 Hydraulic Unit





SB73 Hydraulic Unit

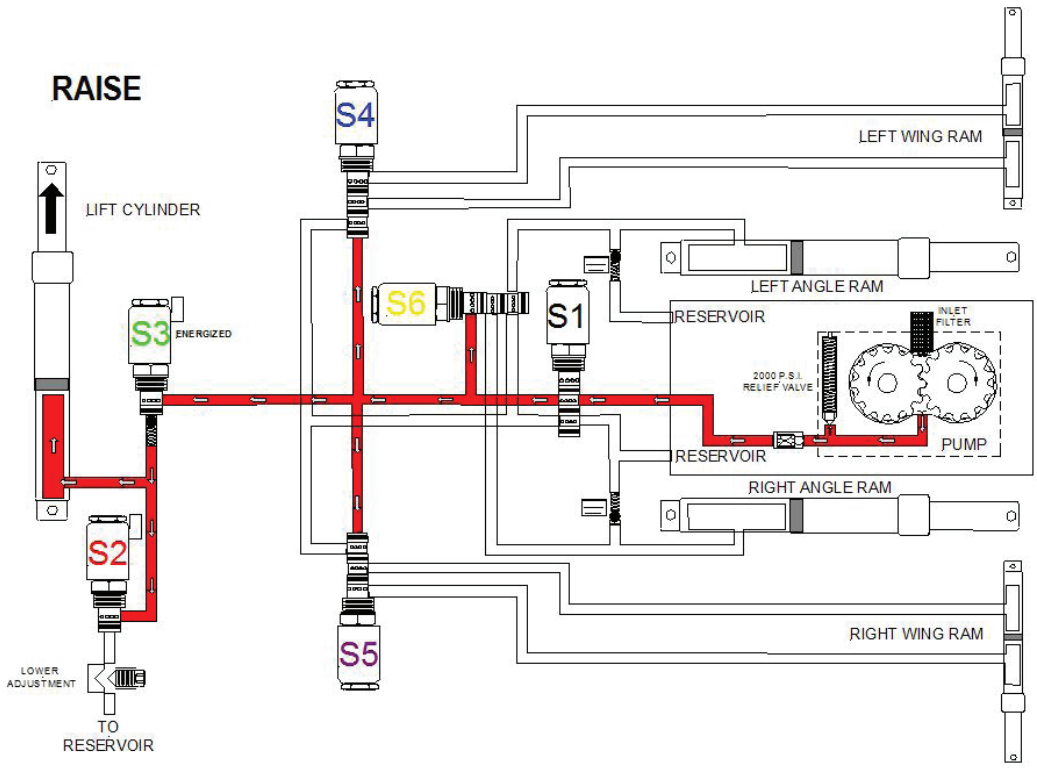


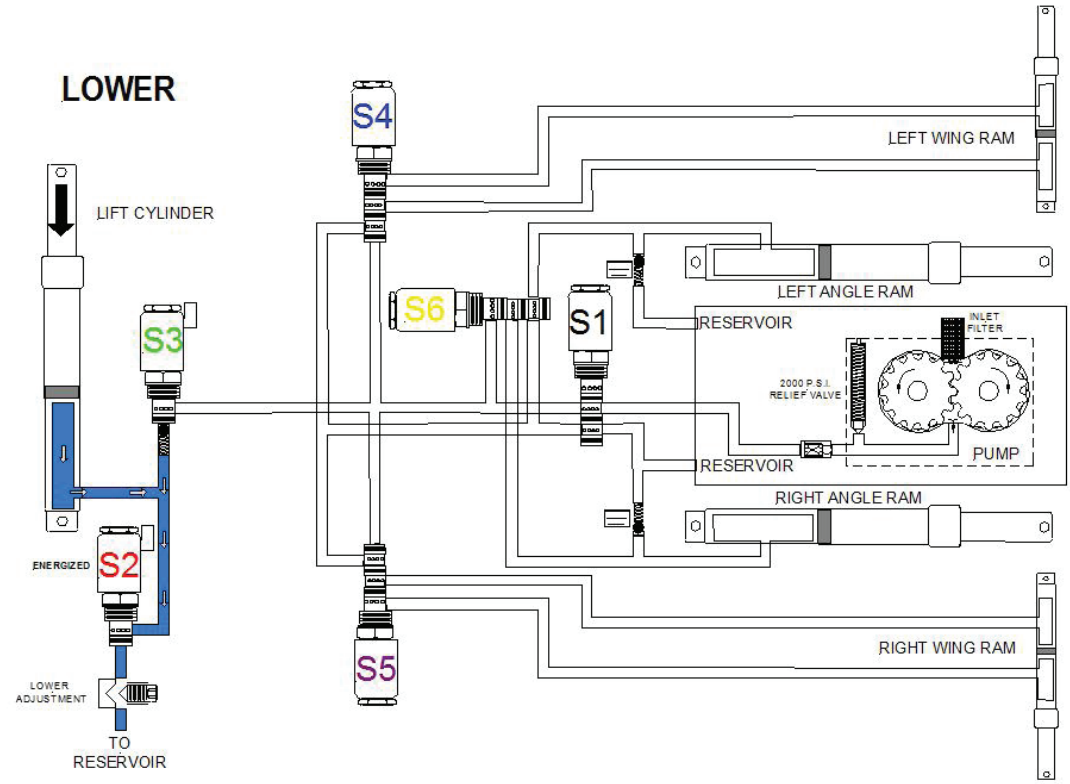
Item	Part	Qty	Description
	16030	1	LIFT ASSEMBLY (UNIT ONLY)
1	15175	1	• BASE ASSY,M3593,MOD,3W/4W
2	15211	1	• P ASSY,QM MDLR,DC,BRGS BLD RSV
3	15083	4	• SCREW,SHC,1/4-20 X 3.0,BLK OX
4	15212SP	1	• MOTOR,DC,12V,4.5in,1 TERM
5	15220	1	• E73 Motor Solenoid Kit
6	15116	1	• VALVE,RELIEF,CART,DA,SIZE 8
7	22866	6	• Elbow 90, 3/8 Sae-Mx3/8 Orf-M
8	15121	2	• VALVE ASSY,R/V,1001 PSI AND UP
9	15215	6	• COIL,12VDC,#8,TWO 1/4 MALE TAB
10	*15224	1	• STRAP, MOTOR-SOLENOID CONNECTNG
11	15146	2	• CARTRIDGE,2W/2P,NC,POPPET,4000
12	15238	1	• Reservoir 4.5 X 9 Horiz
13	22868	2	• Strgt Ftg, 3/8 Sae-Mx3/8 Orf-M
14	15236	1	• Tube Suction 90 Deg 3/8 Npt
15	15237	1	• Tube 45 Deg 3/8 Nptf

Item	Part	Qty	Description
16	15101	1	• FILTER,SCREEN M-SERIES SUCT.
17	15067	1	• PLUG,RESV,BREATHER,3/8 NPT
18	15066	1	• CLAMP,HOSE,WORM GEAR,RSV,M-SER
19	15104	1	• PLUG,SAE O-RING,9/16-18,HEX,SO
20	20049	2	• Bolt H 3/8 16 X 1 G2 Zn
21	20025	1	• Bolt H 5/16 18 X 3/4 G2 Zn
22	20326	1	• W/L Spr Med 5/16
23	15111	1	• CARTRIDGE,4-W/2-P,#8,1/2"STEM
24	15239	3	• Cartridge 4-Way Nc
25	*14185	1	• Horiz Hyd Brkt
26	15165	1	• VALVE,NEEDLE,CART,ADJ
27	15240	2	• Press Comp Flow Control
28	15241	1	• Elbow 90 9/16m X 9/16f Sae
29	15242	1	• Adapter 9/16-18 Sae M X M
30	15243	1	• Fitting Face Seal 3/8 Tube

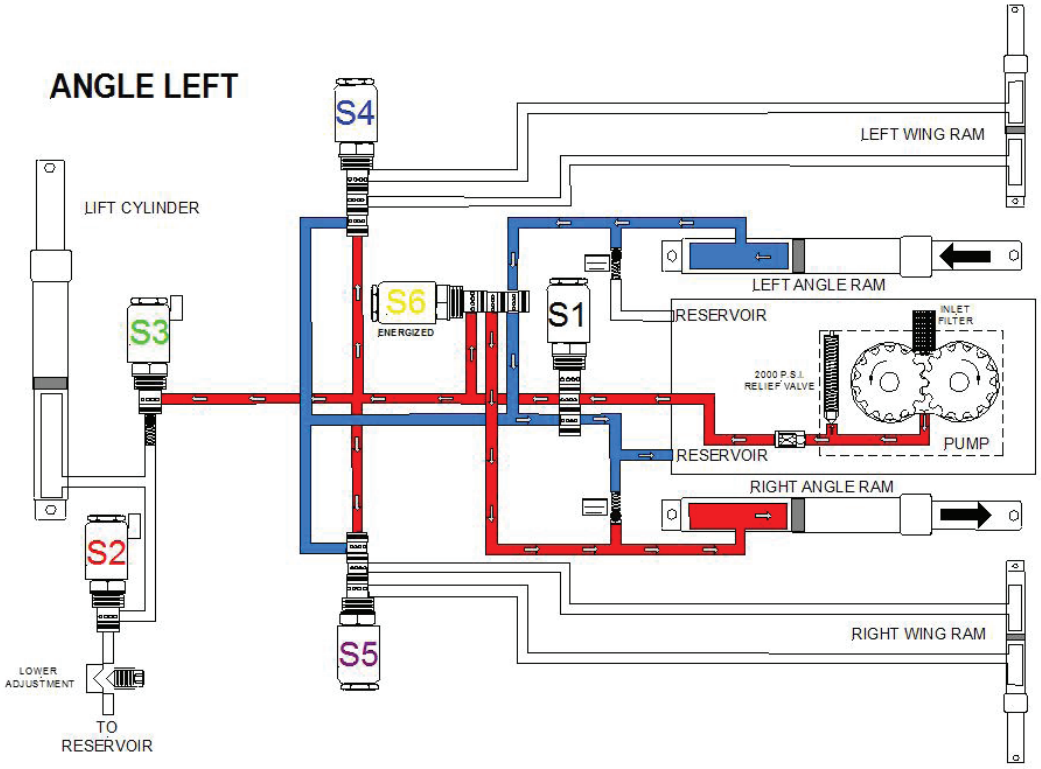
*No Longer Available

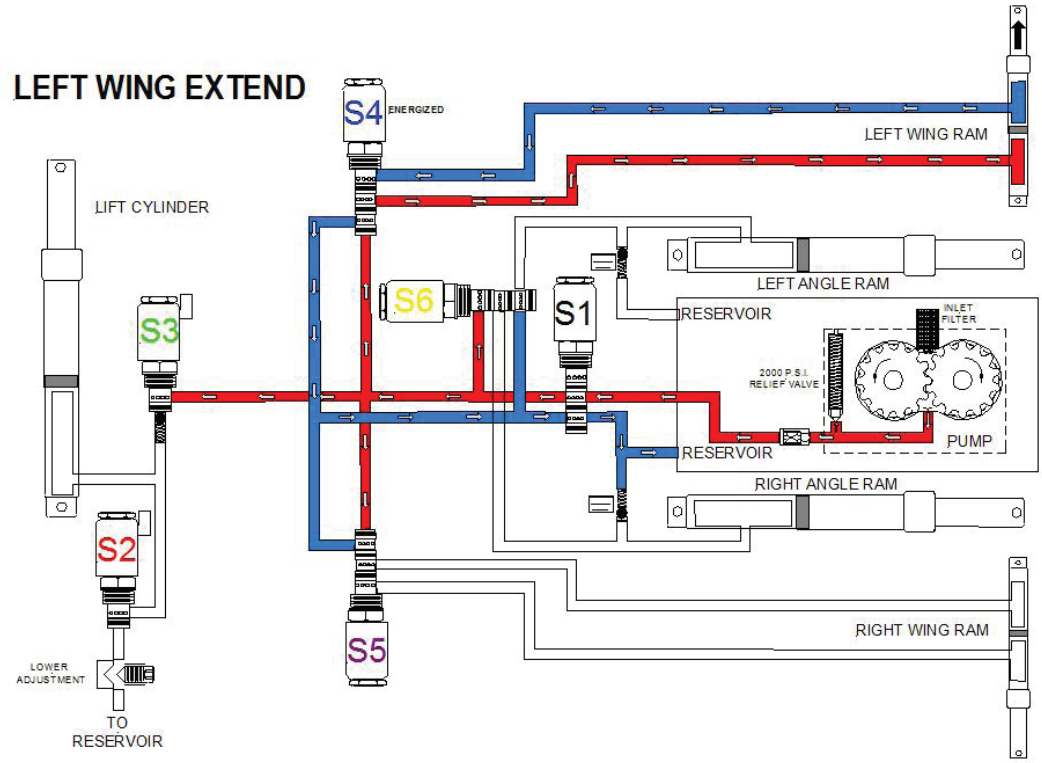
SB73 Hydraulic Unit





SB73 Hydraulic Unit





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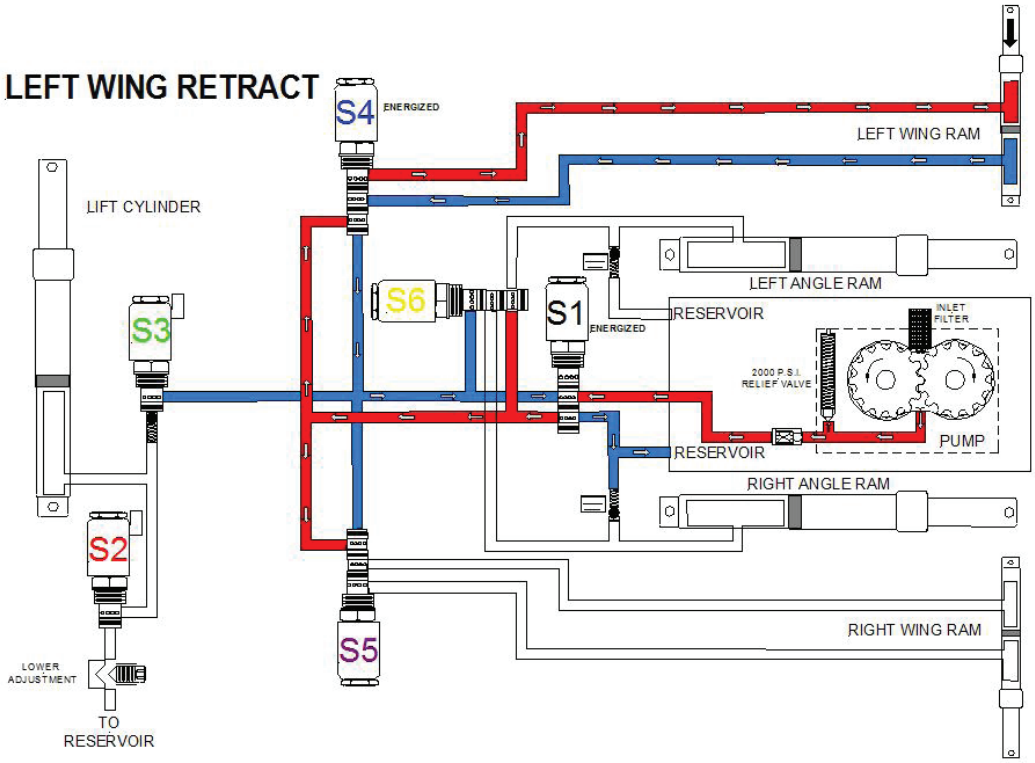

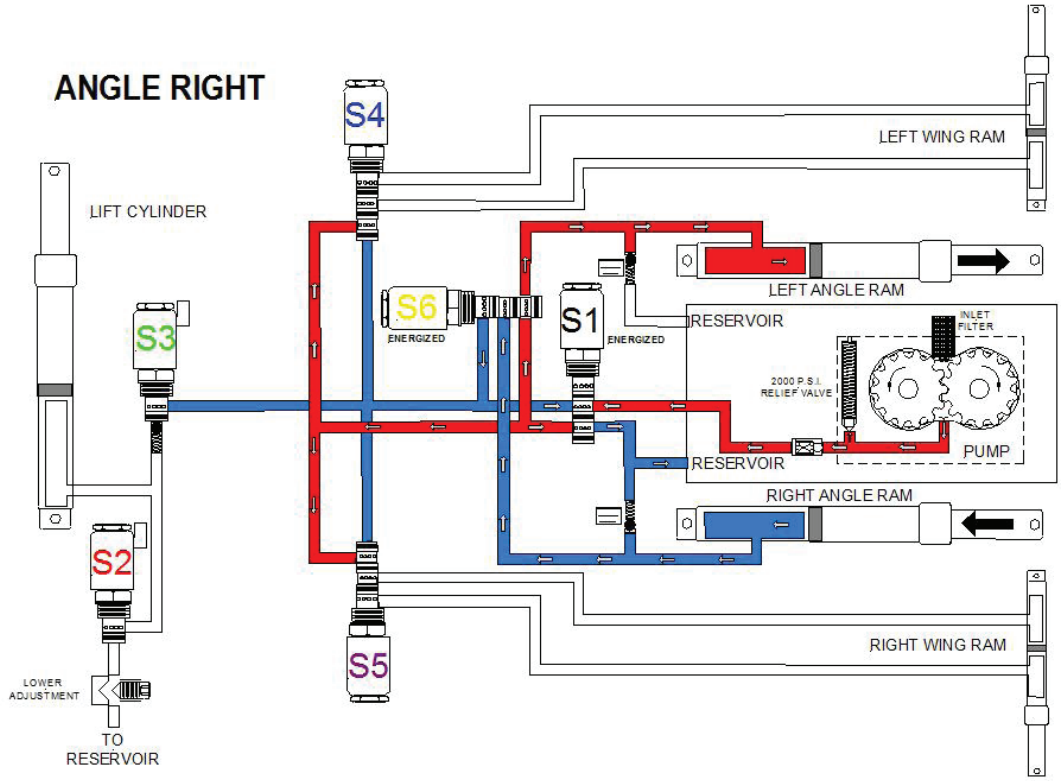

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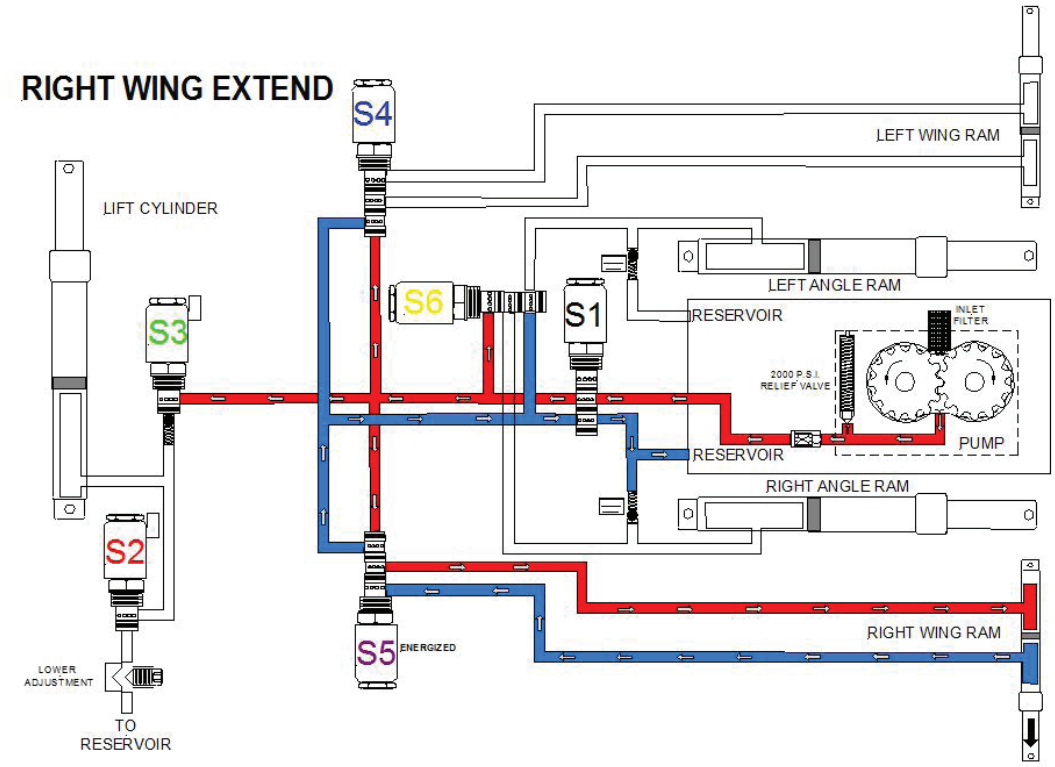
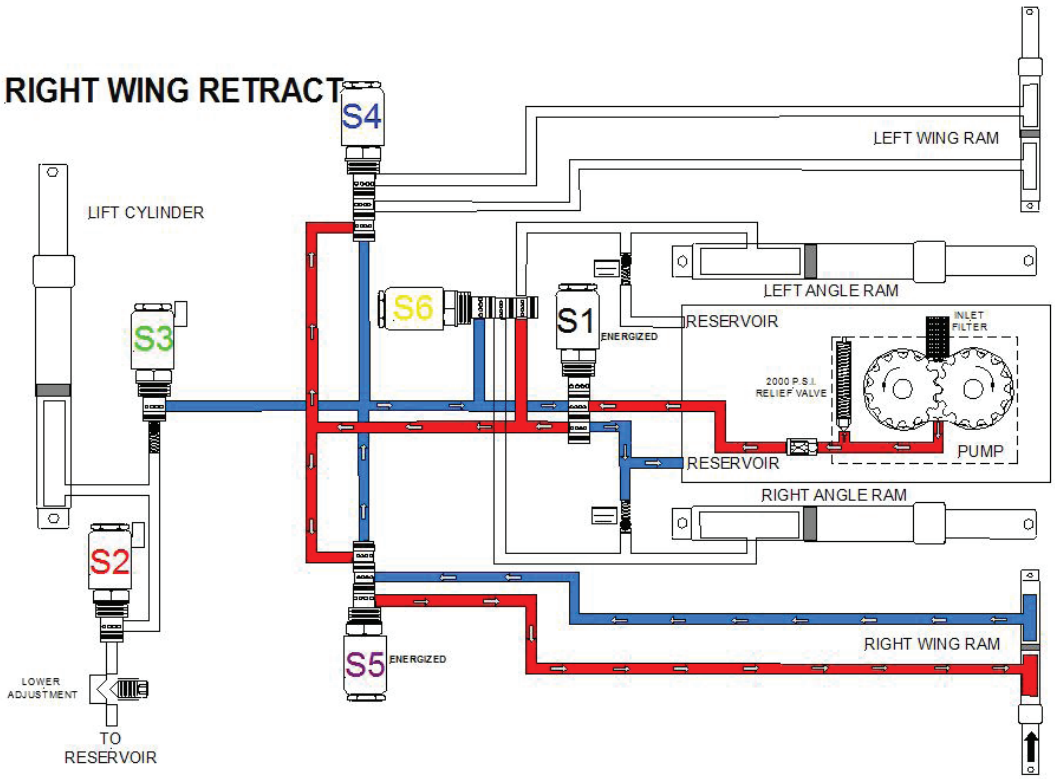
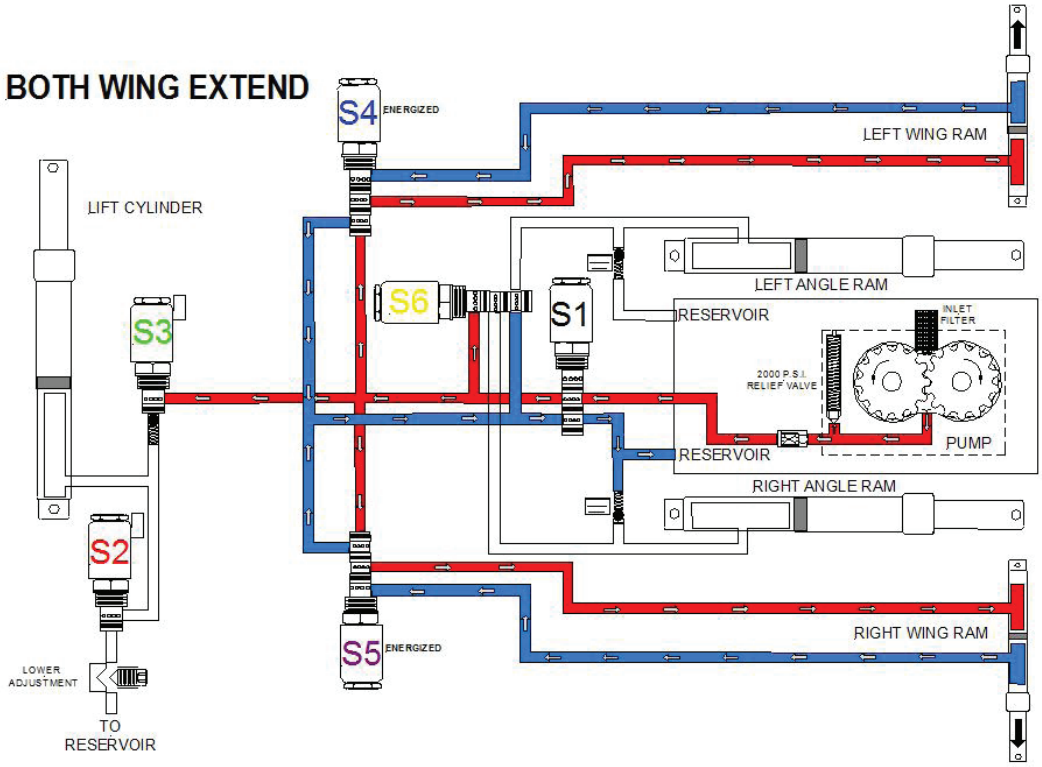
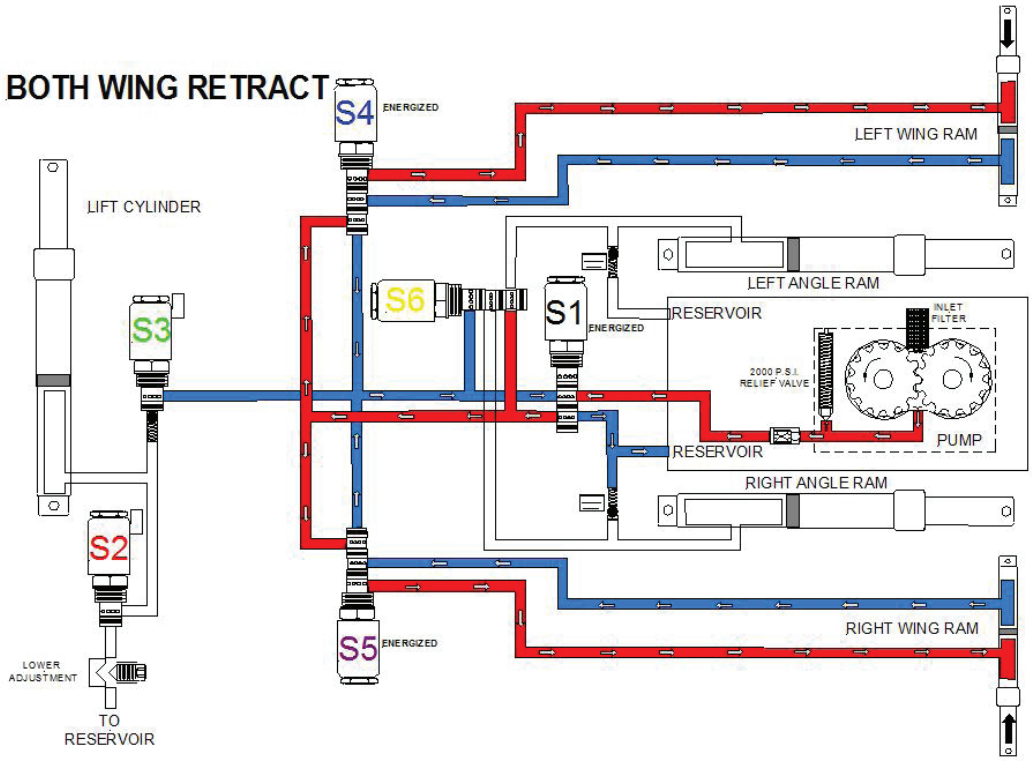




SB73 Hydraulic Unit





MEYER LED SNOW PLOW LIGHTS

12 Volt Kit

PARTS LIST

ITEM	PART NO.	QTY.	DESCRIPTION
	23067	**1**	**LED Snow Plow Light Carton**
1	23066	1	• LED Snow Plow Light, Passenger Side (No Hardware)
		1	•• Bulb-Amber (1157 NA)
2	23065	1	• LED Snow Plow Light, Drivers Side (No Hardware)
		1	•• Bulb-Amber (1157 NA)
	09025	1	• Hardware Bag (C)
3	N/A	8	•• Hex Bolt 3/8" x 3/4", SS
4	N/A	8	•• Hex Nut 3/8", SS
5	N/A	8	•• Lock Washer 3/8", SS
6	N/A	2	•• Metal Bracket, Bottom
7	N/A	2	•• Bolt 1/2"-13 x 1 1/2", SS
8	N/A	2	•• Hex Lock Nut 1/2"-13, SS
9	N/A	4	•• Flat Washer 1/2", SS
10	N/A	2	•• Neoprene Grommet 1/2"

Parts indented are included in carton, bag or assembly under which they are indented.

Headlight Aiming - Nite Saber LED

Note: Installer is responsible that the Snow Plow Lamps are aimed to comply with Federal Motor Vehicle Standard 108.

Aiming Snow Plow Lamps: Loosen the four side bolts on the base of the light to allow the ligh to move freely up and down. Position the light at the correct location so that beams are projected the same distance ahead of the vehicle compared to the OEM headlamps. Note that the hardware has "pins" that will lock the light in position so that it cannot move up or down once the bolts are secured.

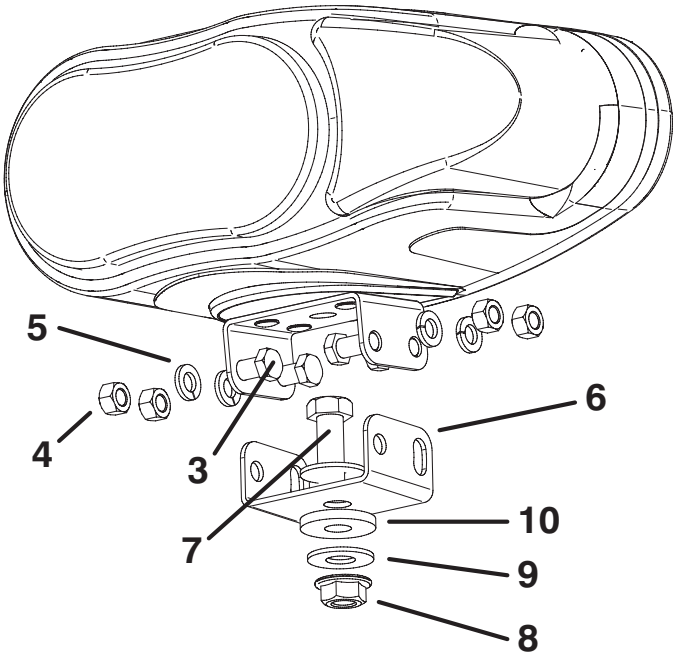
When ordering parts, furnish Part No., Name, and Description. Also furnish Vehicle Model and Year, Type of Hydraulic Unit and Moldboard Size.

NOTICE: MEYER PRODUCTS ASSUMES NO RESPONSIBILITY FOR INSTALLATIONS NOT MADE IN ACCORDANCE WITH THESE INSTRUCTIONS.

INSTALLATION INSTRUCTIONS

1. Mount the lights (1&2) using supplied hardware. Refer to Figure 1.
   Note: The wire harness exiting from the light housing should be secured against the metal frame of the plow supports. Fasten the harness so that it will be located near the grill of the vehicle.

Figure 1



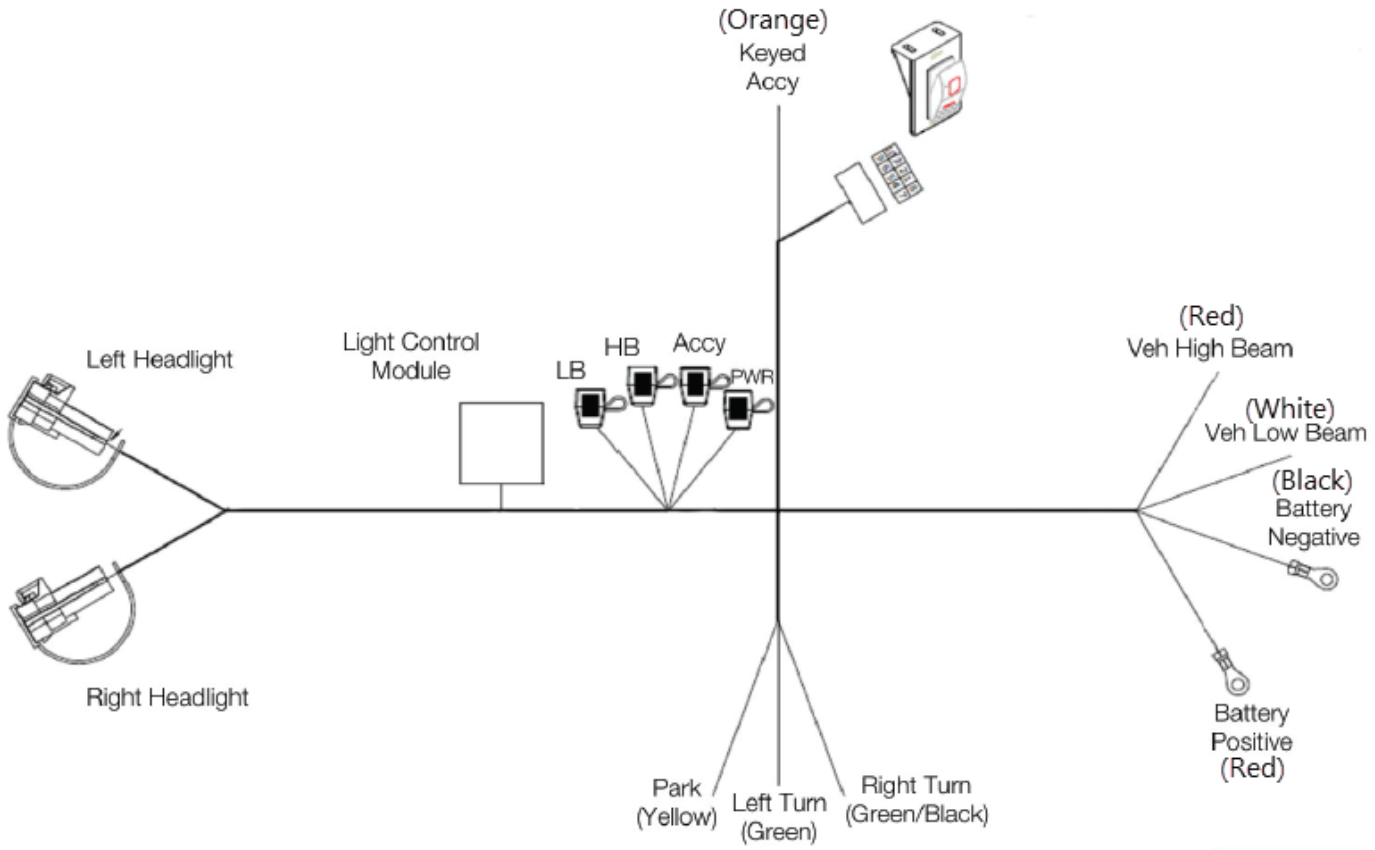
2. Verify that installation is correct by turning on the vehicle headlamps, and switching from high to low beam on the vehicle set, then switch over to the plow lamp headlamp set, and check for high and low beam. At any one time, only the plow or vehicle lights should be on, never both sets at once. Verify DRL headlamp function by turning off the vehicle headlamps switch and turning on the ignition key, starting the engine if necessary. You should have DRL function on only one headlamp set (either plow or vehicle, never both). This is true for most installations. Switch over to the other set, and check for proper function.

3. Your Nite Saber LED light kit is fitted with an internal jumper that illuminates the low and high beam when the high beam is activated. If this feature is not desired, the jumper harness can be removed and only the high beam will illuminate. In addition, the heat grid will not activate in high beam mode.

Important: If lights do not function, a fuse in the external wire harness may have failed. To determine the cause of such failure, check all OEM, external wire connections, DRL lights, auxiliary lights and fuses.

Additional lights connected to the Nite Saber light system will void all warranties.

INSTALLATION INSTRUCTIONS
Plow Light Vehicle Harness
Part Number 23060



The 23060 harness can be used for vehicles equiped with central hydraulics or any vehicle Meyer does not provide light modules for.

When Installing on a Vehicle with Central Hydraulics

- Required for any vehicle equipped with central hydraulics
- Left and Right Headlight connectors will go to plow's Nite Saber lights
- All other connections will be on the vehicle (battery, park, turn signals, etc)

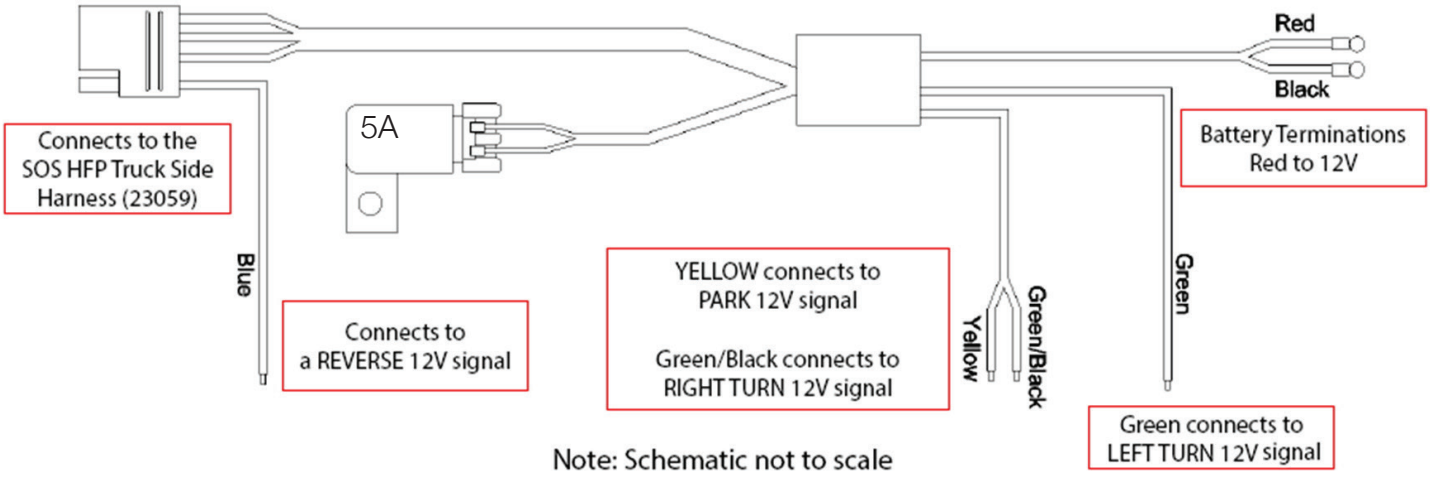
When Installing an EZ+ Plow on a Vehicle Meyer Does Not Provide Light Modules For

- Headlight connections will go to EZ Plus Truck Side Harness (22691S)
- All other connections will be on the vehicle (battery, park, turn signals, etc)

INSTALLATION INSTRUCTIONS
Park/Turn Control Harness
Part Number 23061

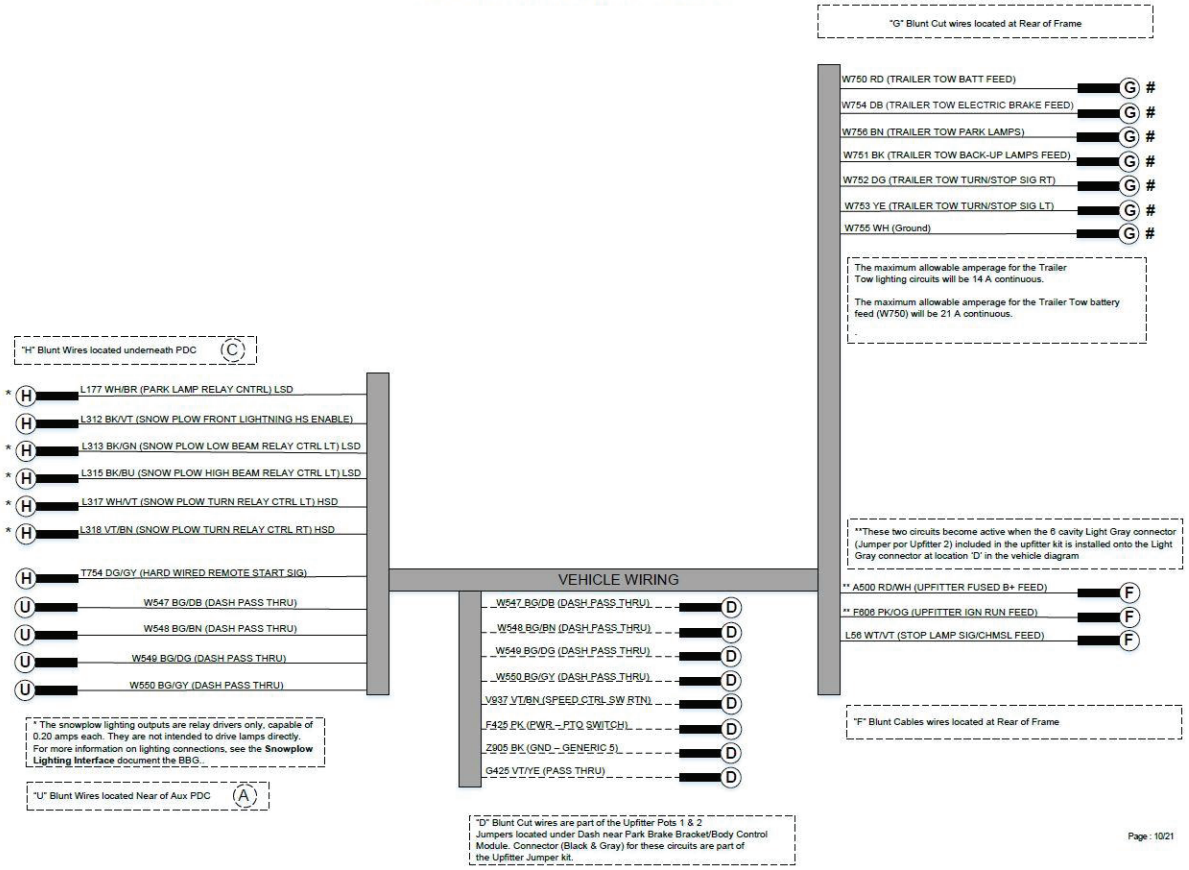
Used for...

- 7 pin to 4 pin trailer harness conversion
- Vehicles without a trailer harness
- Vehicles where the Standard Operating System interferes (ex. Ford)
- Installing the Standard Operating System without the need to run the Vehicle Harness Blue Wire to the rear of the vehicle



2023 UPFITTER SCHEMATIC

Blunt Cut Wires
3500/4500/5500 CHASSIS CAB



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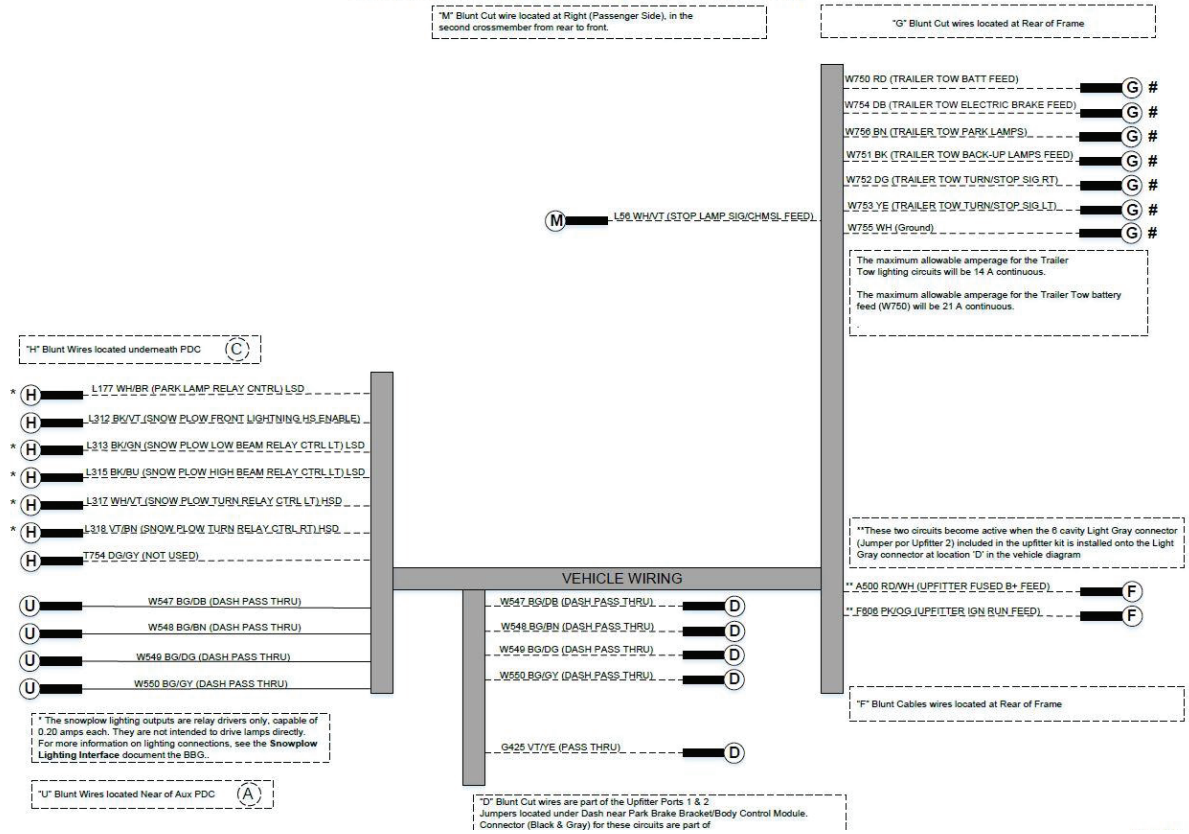
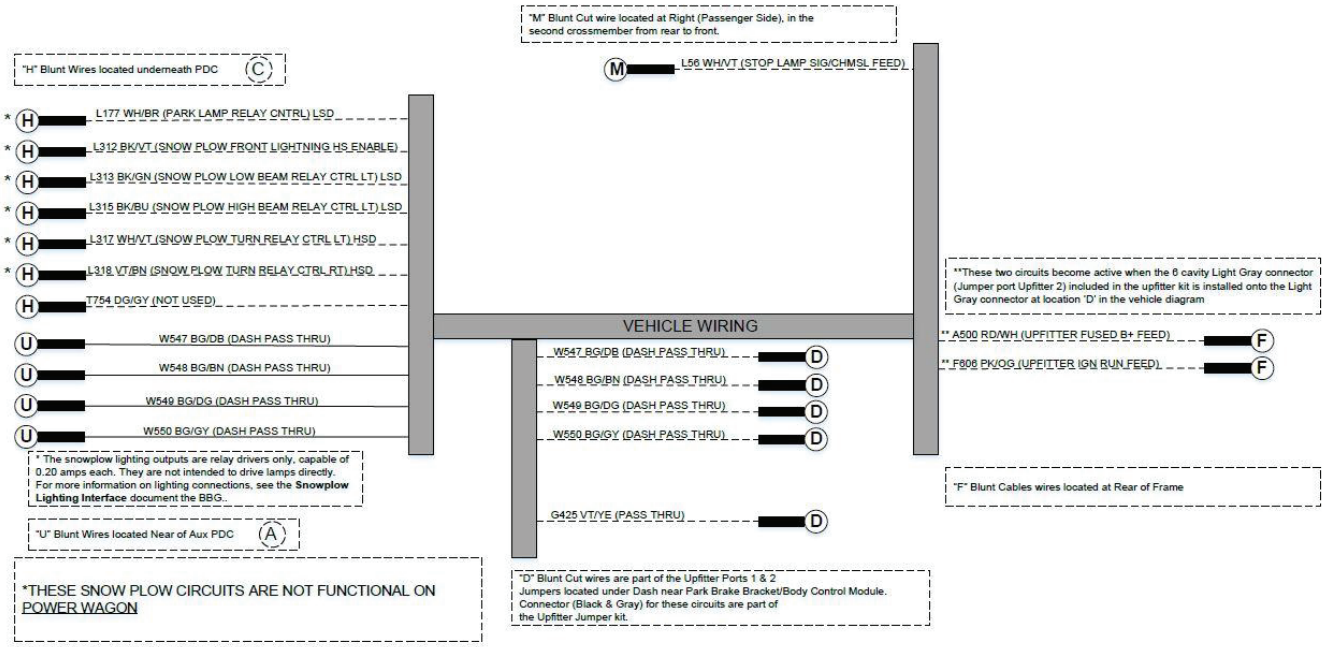
2023 UPFITTER SCHEMATIC

Blunt Cut Wires
2500/3500 Pickup Box-off (Sales Code XBC)



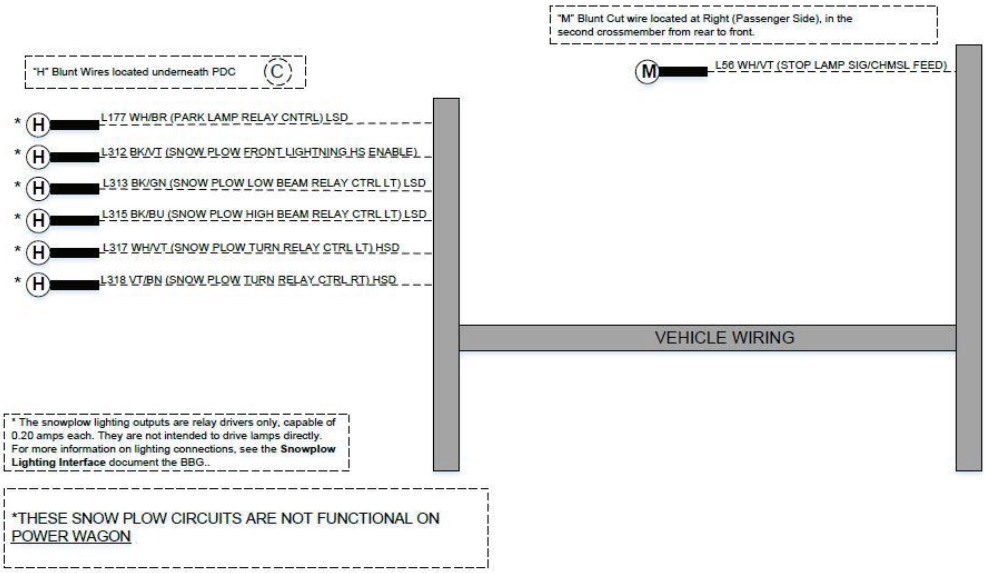
2023 UPFITTER SCHEMATIC

Blunt Cut Wires
2500/3500 Pickup Box-on
W/Auxiliary Switches (Sales Code LHL)



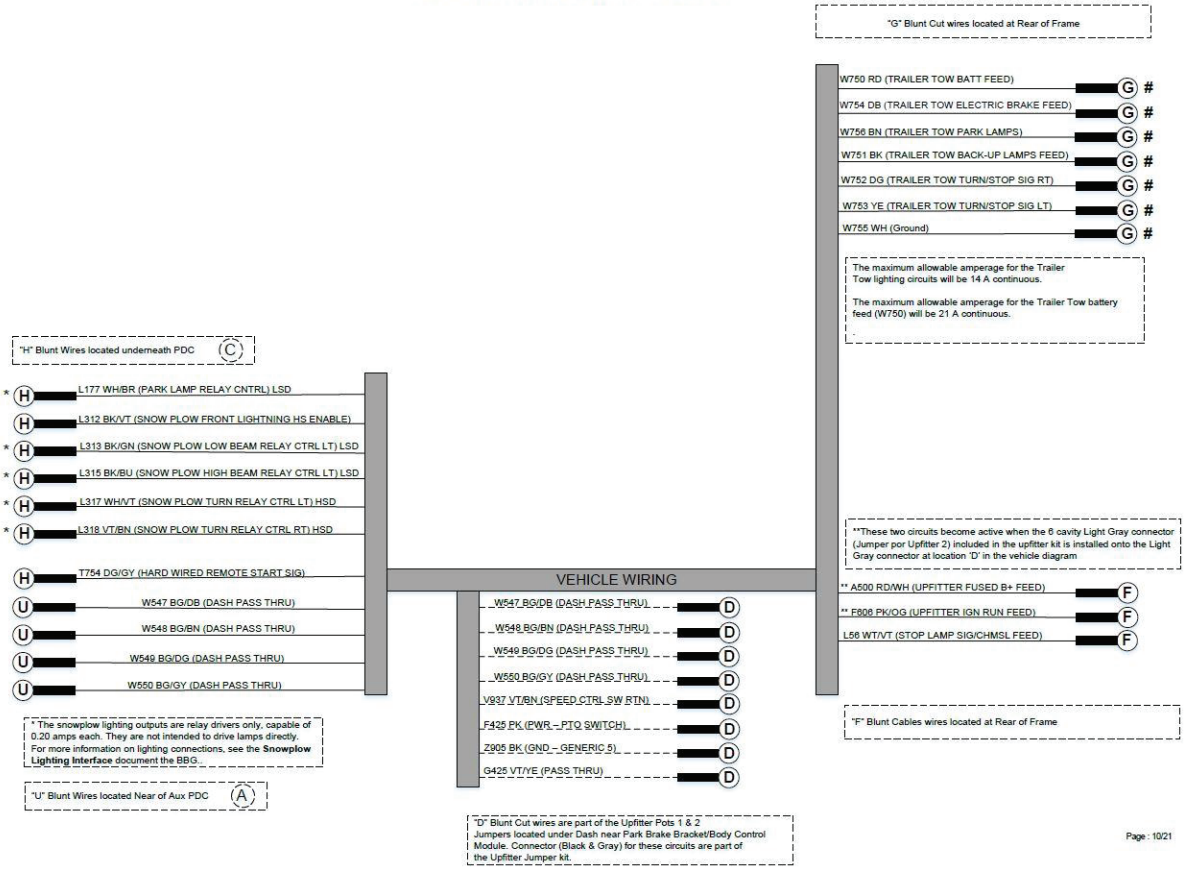
2023 UPFITTER SCHEMATIC

Blunt Cut Wires
2500/3500 Pickup Box-on
W/O Auxiliary Swithces



2023 UPFITTER SCHEMATIC

Blunt Cut Wires
3500/4500/5500 CHASSIS CAB



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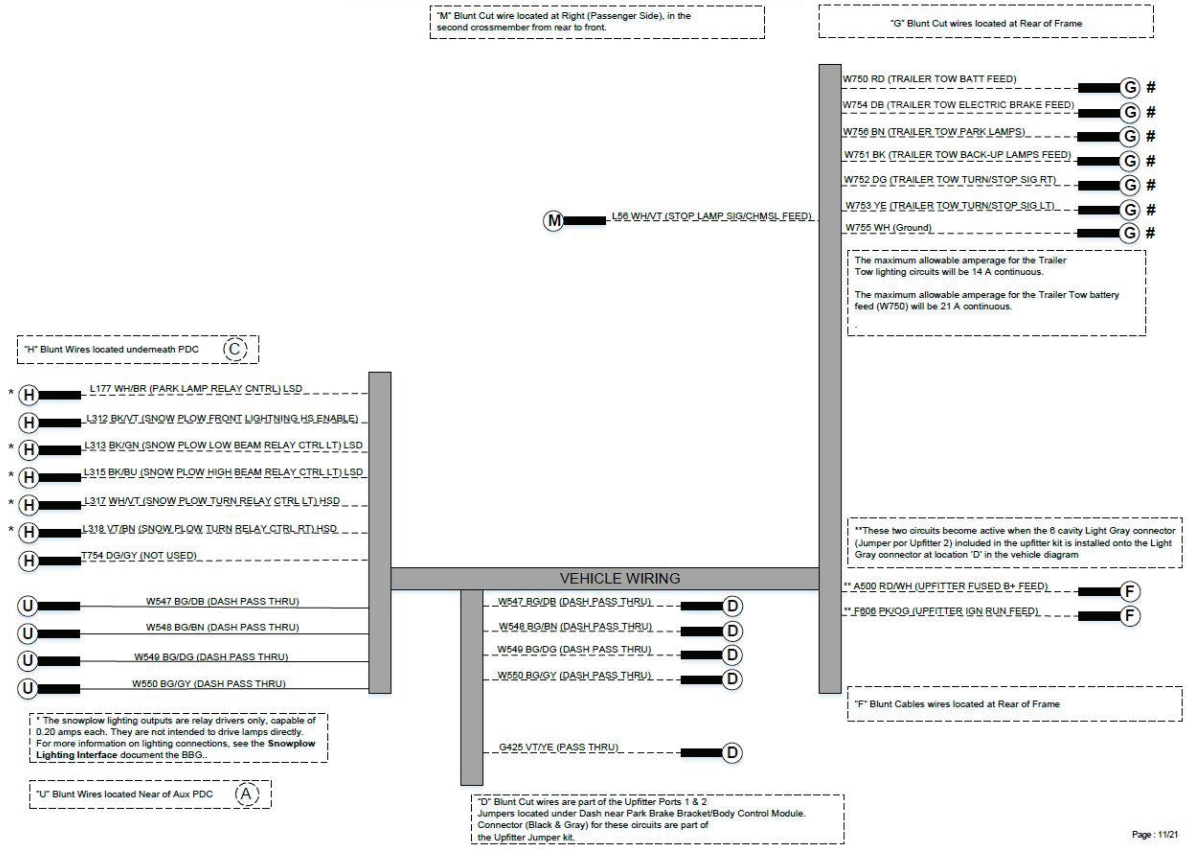
2023 UPFITTER SCHEMATIC

Blunt Cut Wires
2500/3500 Pickup Box-off (Sales Code XBC)



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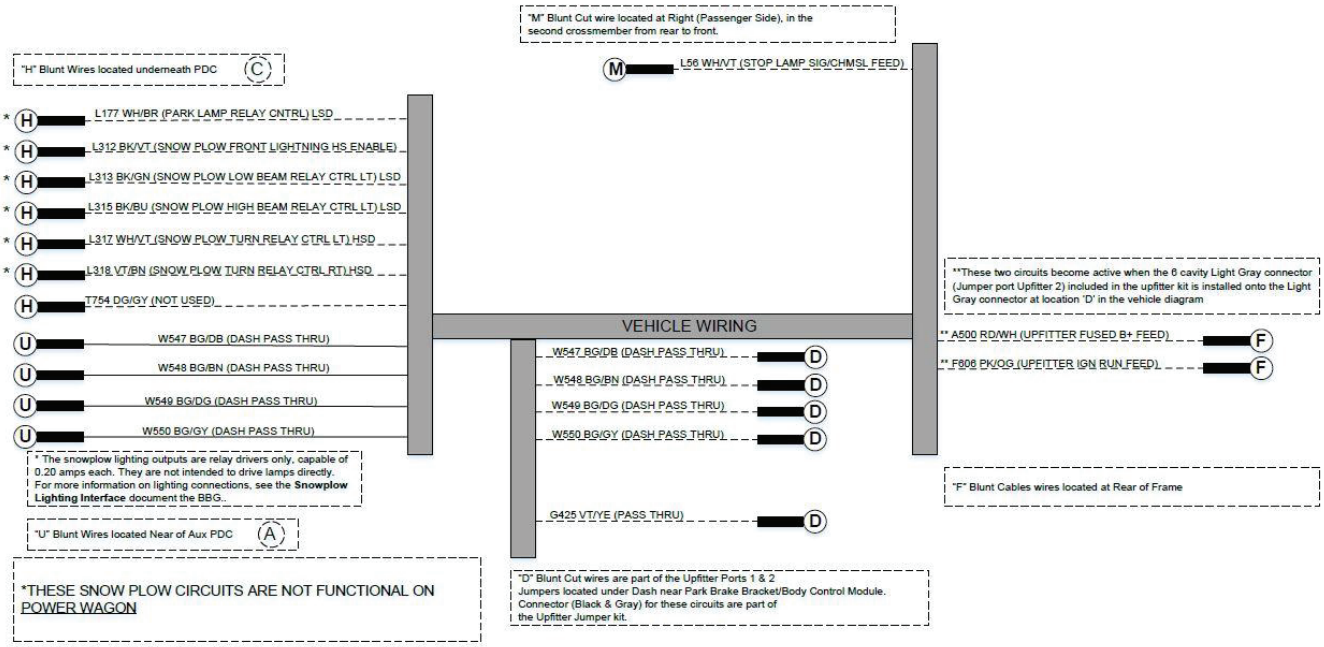
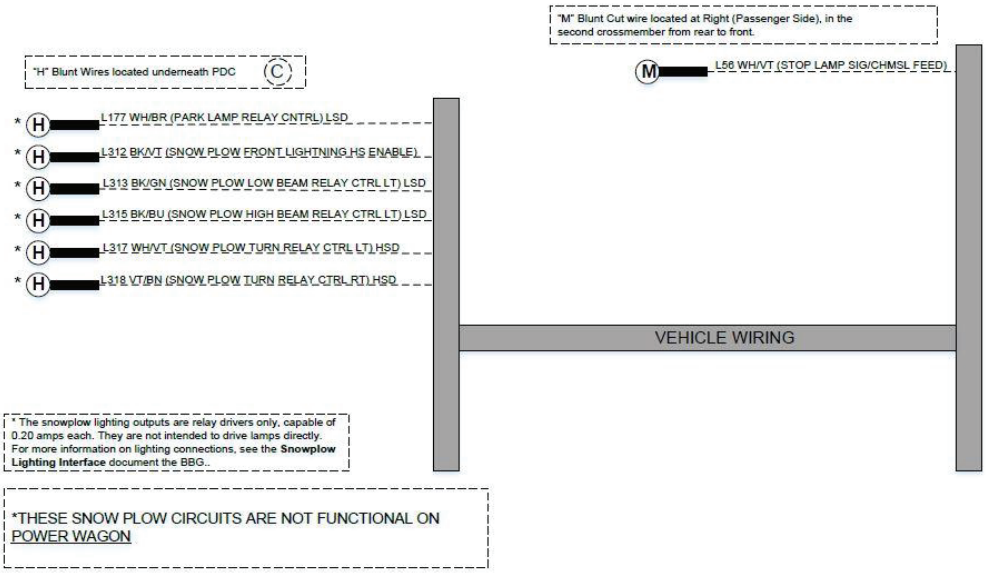
2023 UPFITTER SCHEMATIC

Blunt Cut Wires
2500/3500 Pickup Box-on
W/Auxiliary Switches (Sales Code LHL)



2023 UPFITTER SCHEMATIC

Blunt Cut Wires
2500/3500 Pickup Box-on
W/O Auxiliary Swithces



MEYER SNOW PLOW LIGHTS

12 Volt Kit

PARTS LIST

ITEM	PART NO.	QTY.	DESCRIPTION
	07550	**1**	**Snow Plow Light Carton**
1	07552	1	• Snow Plow Light, Passenger Side (No Hardware)
		1	•• Halogen Bulb H1 55W (High Beam)
		1	•• Halogen Bulb H7 55W (Low Beam)
		1	•• Bulb-Amber (1157 NA)
2	07551	1	• Snow Plow Light, Drivers Side (No Hardware)
		1	•• Halogen Bulb H1 55W (High Beam)
		1	•• Halogen Bulb H7 55W (Low Beam)
		1	•• Bulb-Amber (1157 NA)
	07548	1	• Control Module Carton
3	07347	2	•• Control Module 12 Volts
4	07609	2	•• Cable (Wires - Black, Green, Yellow, Orange, Red)
5	07118	2	•• Cable (Module “C” to Snow plow light)
6	15629	1	•• Dielectric Grease
	08701	1	• Hardware Bag (A)
7	07119	1	•• Rocker Switch
8		1	•• 3 ft. Orange Wire
9		1	•• 2 ft. Red Wire with 5 Amp Fuse
10		1	•• 3 ft. Black Wire
11		1	•• Blue Butt Connector
12		5	•• Butt Splice Connectors with Heat Shrink
13		3	•• Ring Terminal
		10	•• Nylon Tie Straps
14	15804	1	•• Light Switch Mounting Bracket
15	20841	2	•• Self Tapping Screws #12-14 x 1/2” Pan Hd.
16	22208	4	•• Self Tapping Screw #10 Phillips Pan Hd.
	22189	1	•• Decal, Switch
	08822	1	• Hardware Bag (B)
17	07954	2	•• Adapter Ferrule
18	20307	2	•• Esna Nut 1/2-13
19	20355	2	•• Flatwasher 1/2”
20	22454	2	•• Rubber Grommet 1/2”
21	22453	2	•• Rubber Grommet 3/16”
22	Sold Separately	1	Adapter Kit for Driver & Passenger Side Headlamps (NOT INCLUDED IN LIGHT CARTON)

Parts indented are included in carton, bag or assembly under which they are indented.

Caution: It is important that the Meyer harness, all wires from the Meyer light switch, and all other electrical wires be routed around hot, sharp sheet metal or moving engine parts. Protection must be provided to guard against wire damage at these points. All excess or loose wires must be neatly secured using wire ties. It is highly recommended that all electrical connections are coated with a di-electric compound. See “*” on Figure 1.

Note: Installer is responsible that the Snow Plow Lamps are aimed to comply with Federal Motor Vehicle Standard 108. Aiming Snow Plow Lamps: Adjust Snow Plow Lamp so that the beams are projected the same distance ahead of vehicle compared to the OEM Headlamps.

When ordering parts, furnish Part No., Name, and Description. Also furnish Vehicle Model and Year. Type of Hydraulic Unit and Moldboard Size.

IMPORTANT:

See Figure 1, Item 3. Meyer Headlamp Control Modules (HCM Meyer part number 07347) must not be mounted on any engine compartment areas that generate heat such as radiators, coolant hoses or metal that is acting as a heat sink. The Module should be located in an area where air flow is available. The HCM module can only be used with standard DOT compliant automotive bulbs. Do not hook up additional lights to the Original Equipment Manufacturers (OEM’s) when the HCM is installed. The HCM module is designed to work with standard automotive 12Vdc. electrical systems and has a maximum rating of 15 Amps output. Any use of non standard automotive bulbs or any other wiring, installation or use of the HCM modules that exceeds these specifications, voids and nullifies any implied warranty that may have applied.

NOTICE: MEYER PRODUCTS ASSUMES NO RESPONSIBILITY FOR INSTALLATIONS NOT MADE IN ACCORDANCE WITH THESE INSTRUCTIONS.

INSTALLATION INSTRUCTIONS

1. First identify vehicle headlamp type per Adapter Cross Reference Chart (Table 2) on the back side of this form. **Confirm the exact adapter kit that is needed for your vehicle.** Installation of an improper adapter kit may result in damage to the headlamp control module, and/or improper operation of lamps. **Use of improper adapter kits will void all warranties applicable to this product.** There will be two adapter harnesses, one for the left headlamp and one for the right headlamp. The adapter harness comes complete with connectors already wired ready to install. The adapters are packaged separately.
2. Mount the lights (1&2) to the light brackets using supplied hardware. Assemble rubber grommets as shown with 1/2" grommet on top. Refer to Figure 6. **Note:** The wire harness exiting from the light housing should be secured against the metal frame of the plow supports. Using tie wraps (supplied), fasten the harness so that it will be located near the grill of the vehicle.
3. Locate the bag marked "Hardware Bag (A)".
   a) Locate a mounting area for the on/off switch that will not interfere with the operator when entering or exiting the vehicle. Install mounting bracket (14). Using Self Tapping screws (15). Make sure Switch Bracket is in a position so it will not get damaged. Feed the orange (8), red fused wire (9) and black (10) wires through the mounting plate before inserting the switch.
   b) Route the three (3') foot orange wire (8) through the firewall into the engine compartment. Leave sufficient length of the orange wire in the engine compartment to connect it later to cable (4) on both the Driver's and Passenger's side.
   c) The orange wire (8) attaches to the accessory terminal of the switch. The end of the orange wire (8) is provided with a terminal to attach to the light rocker switch (7). **Note the correct position on the switch. Figure 3.**

   d) The 12Vdc power must be connected to a switched ignition circuit. Using the red fused (5 amp.) wire (9) supplied, connect it to a fused 12Vdc power source under the dashboard. The fuse panel is a convenient spot to locate this ignition source. Remove the applicable fuse, trim the red fused wire (8) to the correct length, attach the fuse tap to the red fused wire and securely place it in the fuse block with the existing fuse. Attach the other end of the red fused wire (9) to the Light rocker switch (7). **Note the connection that is marked on the switch. Figure 3.**
   e) The black wire (10) is to be used for the ground connection. Trim the length of wire to suit and using the "forked" spade terminal (13) supplied, connect it to the wire. Fasten it securely to the chassis making sure it is clean of dirt, grease or paint. Attach the other end of the black wire to the accessory switch using the terminal already on the black wire. **Note the connection that is marked on the switch. Figure 3.**
   f) Once all three wire connections have been made to the light rocker switch (7), carefully feed the wires back through the mounting plate. Firmly push the light switch into place in the switch bracket mounting plate (14).
4. Install the adapter sets (22) for the vehicle's headlamps following the directions listed below. **Note:** The adapters are packaged and sold separately. See paragraph 1.

Figure 6

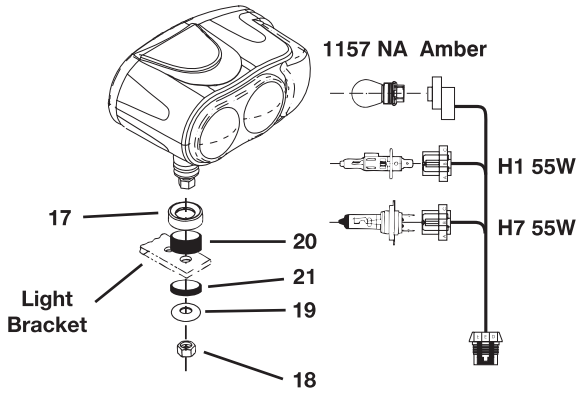
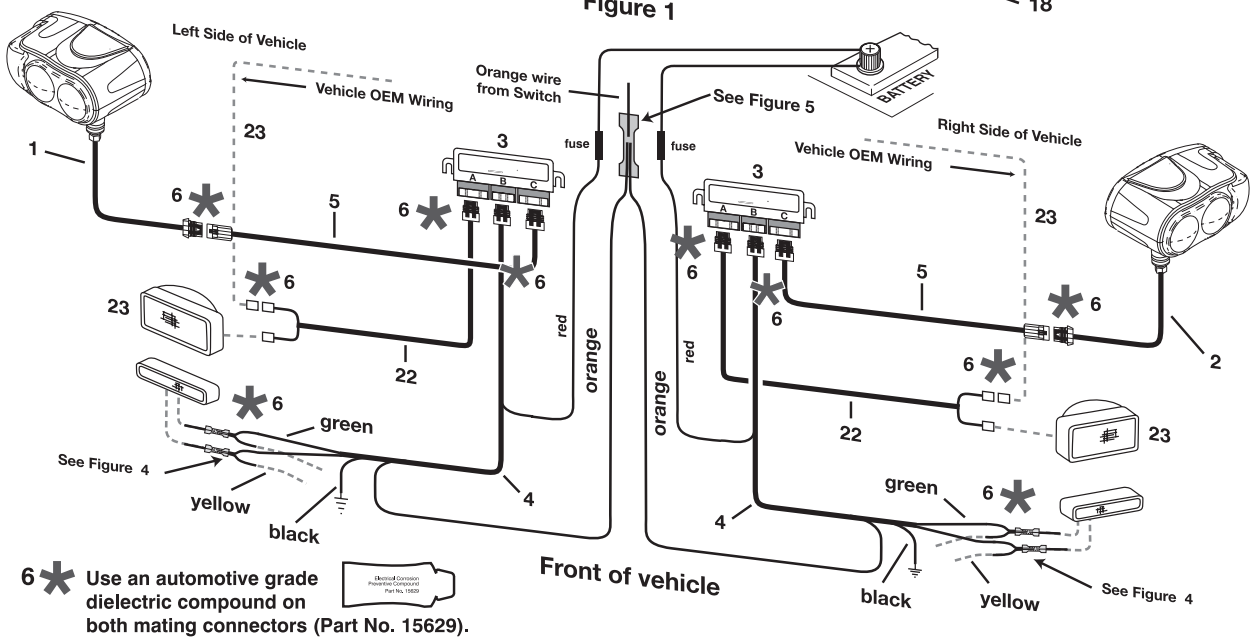


Figure 1



a) Disconnect the original vehicle's headlamps. Taking one of the adapter harnesses (22), locate the connector for the headlamp (23) and connect. Repeat for the other headlamp using the remaining adapter harness.

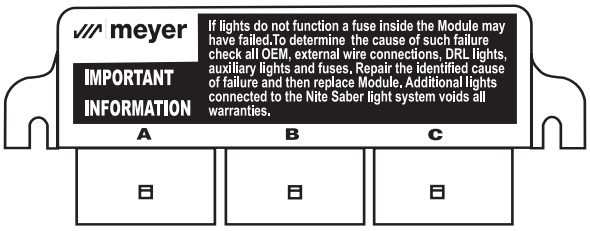
b) Locate the remaining connector on the adapter harness (22). Connect it to the vehicle's harness (24) at the connector that was disconnected from the headlamp originally. Repeat on the other side of the vehicle.

5. Inside the snow plow lamp carton will be two bags. Inside these bags are all the parts needed to complete the wiring for the vehicle. Please note the parts list for a complete description of what is in each bag.

6. Install both Headlamp Control Modules (3) in the engine compartment behind each headlamp. Locate the modules as close as possible to the headlamps and try to mount with connectors facing downward. Make sure that they do not interfere with any moving parts and they are securely fastened. Use the nylon tie straps provided to secure the Modules in two places. **See important information on front cover. DO NOT mount module on any engine component that will get HOT.**

7. Connect Cable (5), to the Control Modules at connector "C" (yellow) and route the cable to the front of the truck grill so that it is accessible from the front and outside of the grill. Secure the end of the cables (5) to the grill with nylon tie straps provided. Connect cables (5) to Snow plow light harness (1&2). These connections should be coated with dielectric compound (6✱) or tape for added protection. **Refer to Figure 2.**

Figure 2



Module Specifications:

VOLTS	:	12 Vdc
MAX. AMPS LOW BEAM	:	10
MAX. AMPS COMMON	:	15
MAX. AMPS HIGH BEAM	:	15
MAX. AMPS PARK LAMP	:	5
MAX. AMPS TURN LAMP	:	5

Figure 3

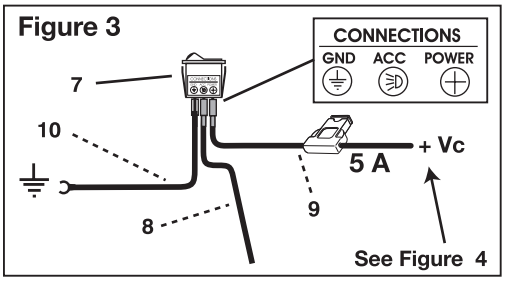


Figure 4

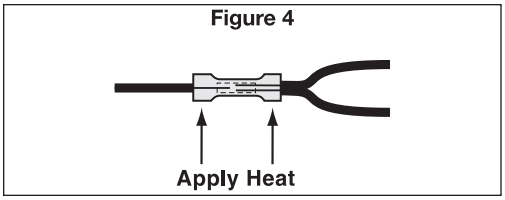
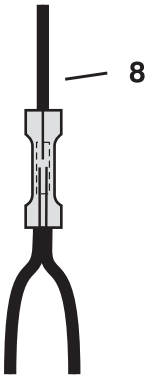


Figure 5



8. Locate vehicle's marker light wires and turn signal wires on the right side of the vehicle. Locate Cable (4) in Module carton parts bag. Connect these wires as shown in Figure 1. (No special test light procedure is needed for markers and turn signals.) **Refer to Figure 4 for proper butt splice connector use.**

a) Connect the green wire from Cable (4) to the "positive" wire of the original equipment turn signal. **Refer to Figure 4 for proper butt splice connector use.**

b) Connect the yellow wire from Cable (4) to the "positive" wire of the original equipment parking light wire. **Refer to Figure 4 for proper butt splice connector use.**

c) Attach the black ground wire from Cable (4) to a clean ground on the chassis of the vehicle. Crimp the fork spade terminal to the black wire. Use the #10 self tapping screw (16) provided. Make sure this connection is free of grease, paint or dirt.

d) Attach the orange wires from Cable (4) to the orange wire (8) at the firewall. Use the supplied butt connector (11) to make the connection. **Refer to Figure 5.**

e) **Connect the red wire from cable (4) to positive terminal on battery. An appropriate connector will be required. Not supplied in this kit. Red wire powers snow plow turn signals.**

f) Connect the 6 way connector of Cable (4) to the Control Modules (3) at position "B" (green).

9. The final connection is the "A" connection on the Control Modules. Locate the adapter harness with the black six way connector on one side of the vehicle.

Reference Paragraph 1.

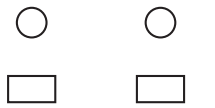
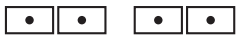
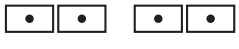
Connect it to the connector on the Control Module marked "A" (black). Repeat on the other side of the vehicle. **CAUTION: DO NOT PLUG IN ADAPTER WITH LIGHTS ON.**

10. Verify that installation is correct by turning on the vehicle headlamps, and switching from high to low beam on the vehicle set, then switch over to the plow lamp headlamp set, and check for high and low beam. At any one time, only the plow or vehicle lights should be on, never both sets at once. Verify DRL headlamp function by turning off the vehicle headlamps switch and turning on the ignition key, starting the engine if necessary. You should have DRL function on only one headlamp set (either plow or vehicle, never both). This is true for most installations. Switch over to the other set, and check for proper function.

Note: 1999 & Later Chevrolet & GMC vehicles with independent DRL lights (separate from the vehicle headlights), require the installation of a DRL Kit (Light Adapter W/Module). The installation of the DRL Kit will allow both the vehicle and Snow Plow Lights to be on at the same time in the DRL Mode. This is normal operation.

Important: If lights do not function a fuse inside the Module may have failed. To determine the cause of such failure check all OEM, external wire connections, DRL lights, auxiliary lights and fuses. Repair the identified cause of failure and then replace the Module. Additional lights connected to the Nite Saber light system will void all warranties. Refer to Figure 2.

ADAPTER CROSS REFERENCE

ADAPTER KIT NO.	HEADLAMP BULB TYPE	SYSTEM TYPE	MANUFACTURER/VEHICLE MODEL YEAR	CONFIGURATION
07101	**2A1** Low 4652 H4656 **1A1** High 4651 H4651	4 Lamp Rectangular	**Chevy/GMC** 1988 thru 2000	
07102	**HB5** H9007	Replacement Bulb	**Ford F Series** 1999 thru 2004 **Dodge** W Series 2003 thru 2004	
07103	**LF** Low H4703 **UF** High H4701	4 Lamp Rectangular		
07104	**HB4** Low H9006 **HB3** High H9005	Replacement Bulb	**Chevy/GMC** 1988 thru 2000	
07105	**2E1** H4666 H6545 HP6545	2 Lamp Rectangular		
07106	**HB1** H9004	Replacement Bulb	**Dodge** W Series 1999 thru 2002	
07108	**HB4** Low H9006 **HB3** High H9005	Replacement Bulb	**Chevy/GMC** 1999 thru 2002 vehicles Avalanche 2002 thru 2003 DRL separate from truck headlamps	
07180	**2D1** 6014 H6014 6015 H6017 H6024 **2B1** 6052 H6052 H6054 HP6054 H5054 H6054LL **HB2** H9003 H9003LL	2 Lamp Round 2 Lamp Rectangular	**Chevy/GMC** 1988 thru 2000 **Ford F Series** Excursion 2005 and later	
07190	**HB5** H9007 **HB1** H9004	Replacement Bulb	**Dodge Ram Sport** 1999 US models only Quad headlamps	
07205	**HB4** Low H9006 **HB3** High H9005	Replacement Bulb	**Nissan Titan** 2005 and later	
07213	**HB4** Low H9006 **HB3** High H9005	Replacement Bulb	**Chevy Blazer, S10 and Sonoma** 1998 and up	
07221	**HB5** H9007 **HB1** H9004	Replacement Bulb	**Dodge Ram Sport** 1999 and up US and Canadian models Quad headlamps	
07333	**H11** Low **HB3** High H9005	Replacement Bulb	**Chevy X88/GMC Z88** K 1500/2500 Series Tahoe 1/2 ton Suburban 3/4 ton 2007 and up DRL on headlamps	
07334	**H13** H9008	Replacement Bulb	**GMC Z88 Utility** Yukon 1/2 ton Yukon XL 3/4 ton 2007 and up DRL on headlamps	
07343	**H13** H9008	Replacement Bulb	**GMC Z88 Utility** 2007 and later	
07344	**H13** H9008	Replacement Bulb	**Chevy X88 Utility** 2007 and later	
07353	**H11** Low **HB3** High H9005	Replacement Bulb	**Toyota Tundra** 2007 and later	
07400	**HB4** Low H9006 **HB3** High H9005	Replacement Bulb	**Chevy/GMC** 2003 thru 2006 vehicles Avalanche 2003 thru 2006 DRL separate from truck headlamps	
07403	**TBA**	N/A	**International Trucks** 2000 and up Vehicle must have the manufacturer's snow plow lighting option 08THJ Special light connector is located behind the left headlamp	
07417	**H13** H9008	Replacement Bulb	**Ford F Series** Excursion 2005 and later **Dodge** 2005 and 2006	
08143	**HB4** Low H9006 **HB3** High H9005	Replacement Bulb	**Chevy Trailblazer** 2002 and later	

Snow Plow Lamps
Aiming Instructions

1) Requirements:

a) An unobstructed wall that is preferably painted white with minimum dimensions 10 feet (3m) wide by 5 feet (1.5m) high. The vehicle that is having the lamps installed will need to be parked such that the distance from the front of the snow plow lamps to the wall is 25 feet (7.6m). The ground of the wall and driveway in which the vehicle is parked must be flat and even.

2) Preparation for Headlamp Aim:

The vehicle must be positioned 25 feet (7.6m) away from the aiming wall. The center of the vehicle must be aligned with the center of the wall. This can be facilitated by using black tape to mark the wall. The wall will require a vertical line that represents the center line of the vehicle and the wall (Line 1), and a horizontal line that represents the center line height of the snow plow lamps (Line 2), (reference item i below). The wall will also require two vertical lines bisecting the horizontal line that provide the distance between the snow plow headlamps (Lines 3 left and 4 right). Locate the high beam (inner) bulb on each snow plow lamp and project the location onto the front lens with the aid of a small ½" piece of black tape. Then using a tape measure, accurately measure the distance between the black tape left and right bulb centers. Once the distance has been determined, divide the distance by two. This is the distance between Line #1 to Line #3 and Line #1 to Line #4. Reference Figure 5. Finally, the wall will require a horizontal line that represents the nominal vertical aim position down (Line 5), (reference item j below). Reference Figure 5.

a) Remove ice or mud from under fenders.
b) Set tire inflation pressures to the values specified on the tire sidewall or information label.
c) Check truck springs for sag or broken suspension system.
d) See that there is no load on the vehicle other than the driver, the snow plow frame and the snow plow. The snow plow should be in the raised position.
e) Check functioning of any automatic vehicle leveling systems and specific manufacturer's instructions pertaining to vehicle preparation for headlamp aiming.
f) Clean the snow plow lamp lens.
g) Check for bulb burnout and proper beam switching.
h) Stabilize suspension by rocking vehicle sideways.
i) Measure the vertical height of the center of the snow plow lamp from ground. This dimension will be required for comparison to Table #1.
j) Reference Table #1 and determine the nominal vertical aim down below the horizontal center line of the snow plow headlamps. Using black tape draw this horizontal line (Line 5). Reference Figure 5.

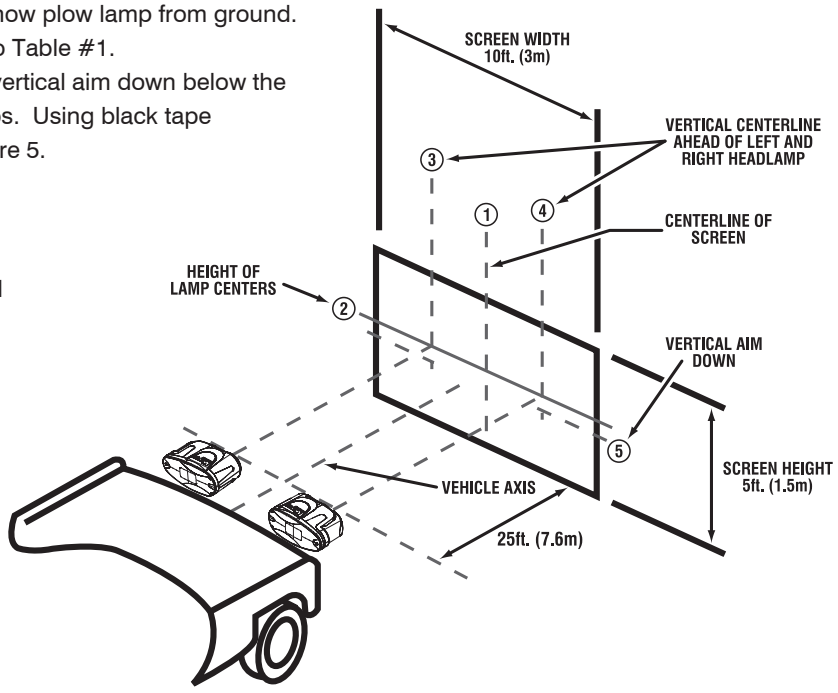


FIGURE 5 -
ALIGNMENT OF HEADLAMP AIMING SCREEN

3) Visual Headlamp Aiming Procedure:

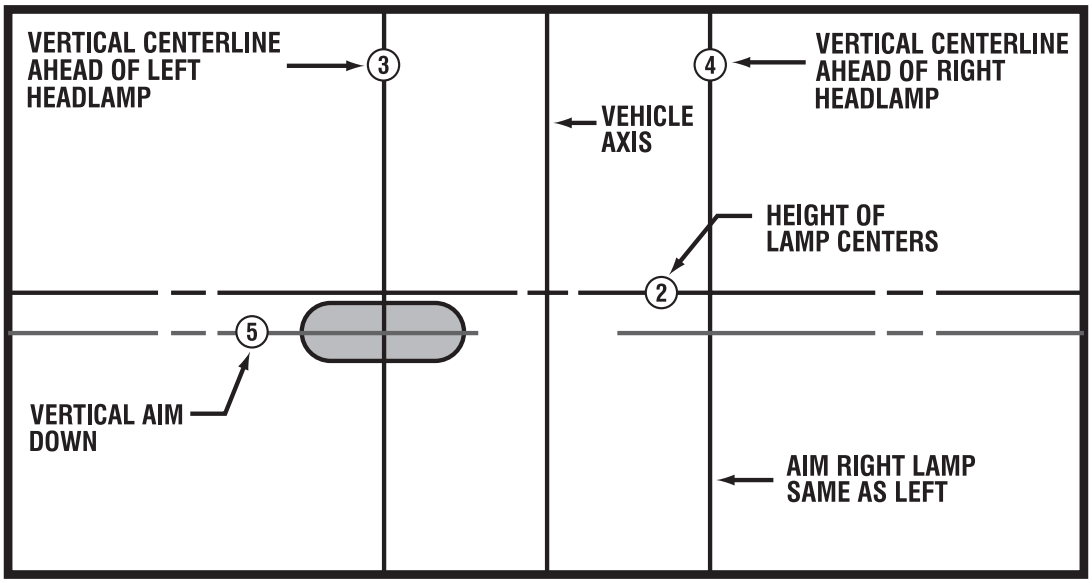
a) Activate the snow plow lamp HIGH beams so that they illuminate toward the wall. Reference Figure 6.
b) Focus the left snow plow lamp hot spot beam directly at the cross hair target that is developed by Line 5 and Line 3.
c) There are four bolts that provide vertical aiming of the headlamp. Adjust the lamps accordingly and tighten the bolts.
d) Repeat the same procedure for the right snow plow lamp. The hot spot beam cross hair target that is developed by Line 5 and Line 4.
e) Confirm that each lamp has maintained the correct aiming location. Secure the mounting bolts to the snow plow frame.

4) This completes the headlamp aiming process. Confirm that the headlamps are switched back to the low beam position before operating vehicle.

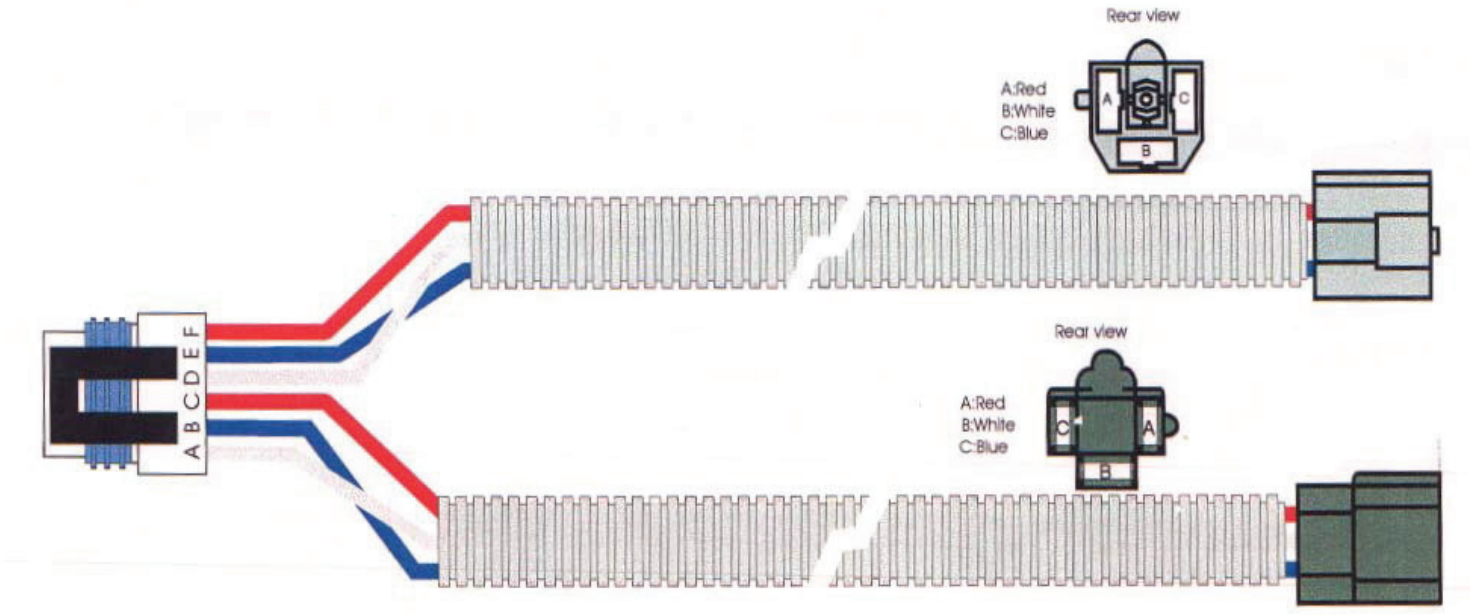
TABLE 1 - VERTICAL BEAM AIM GUIDELINES (LINE 5)

Headlamp (centerline) Mounting Height	Nominal Vertical Aim Down
22 to 36 in (56 to 90 cm)	0 Vertical
36 to 48 in (90 to 120 cm)	2 in (5 cm) Down
48 to 54 in (120 to 140 cm)	4 in (6.4 cm) Down

FIGURE 6 - HIGH-INTENSITY ZONE (SHADED AREA OF A PROPERLY AIMED UPPER BEAM ON THE AIMING SCREEN 25 ft (7.6 m) IN FRONT OF VEHICLE)



07099 Adapter Harness



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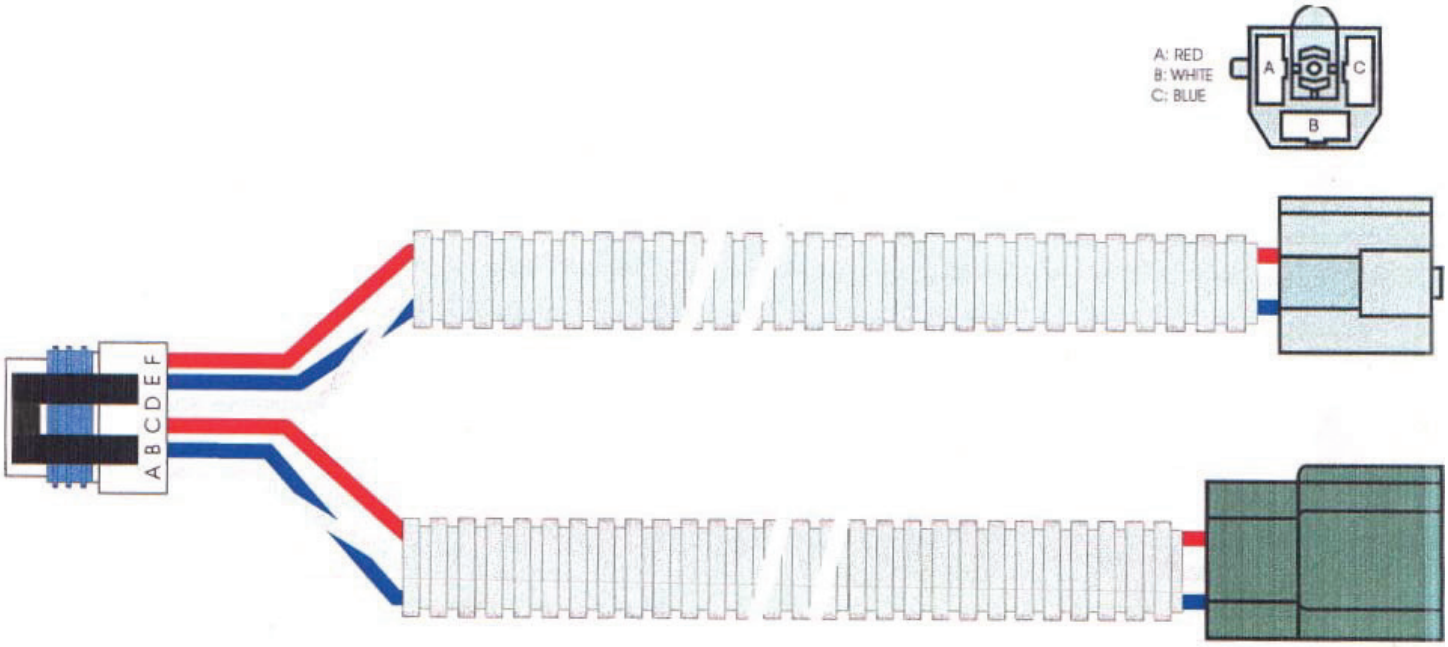

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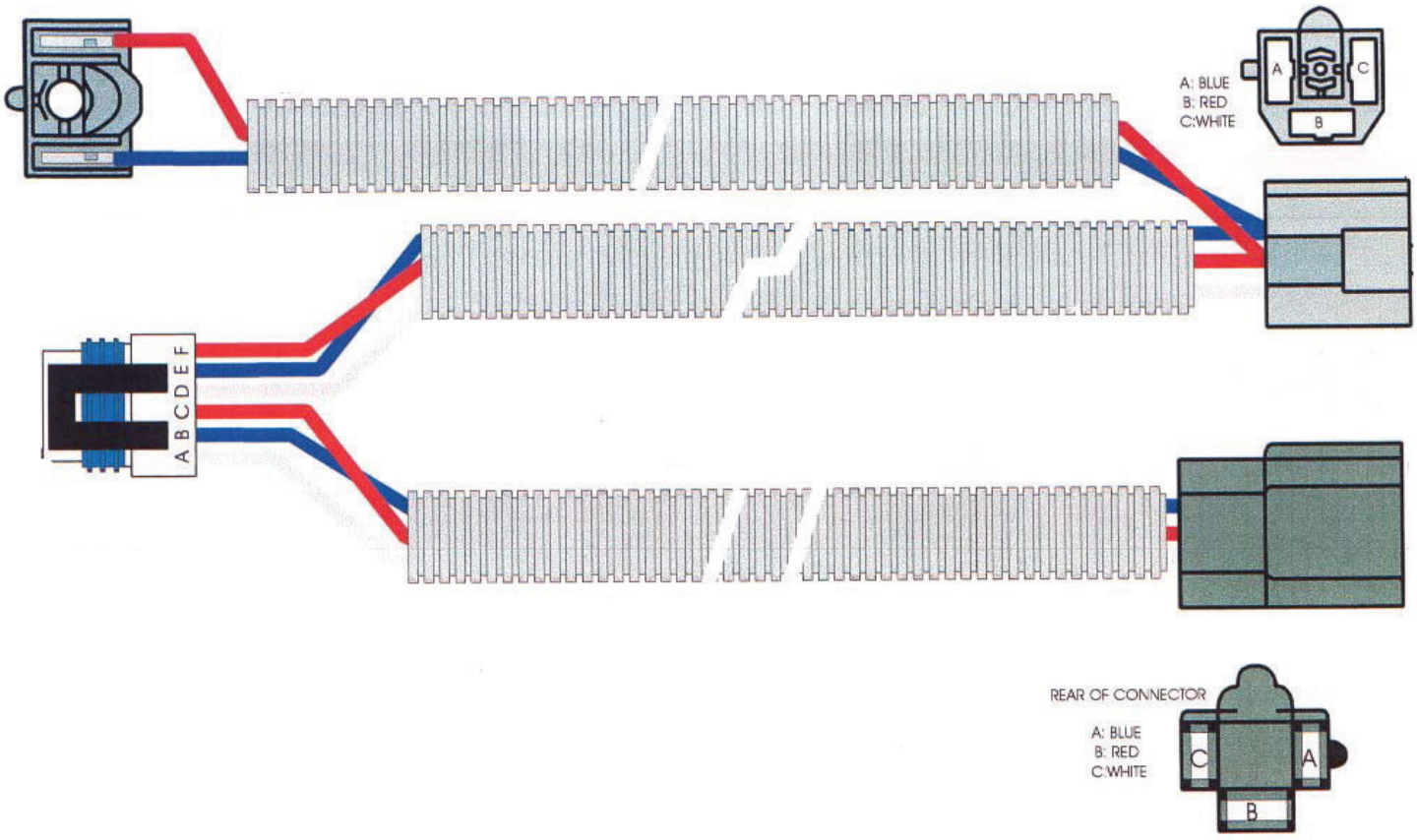

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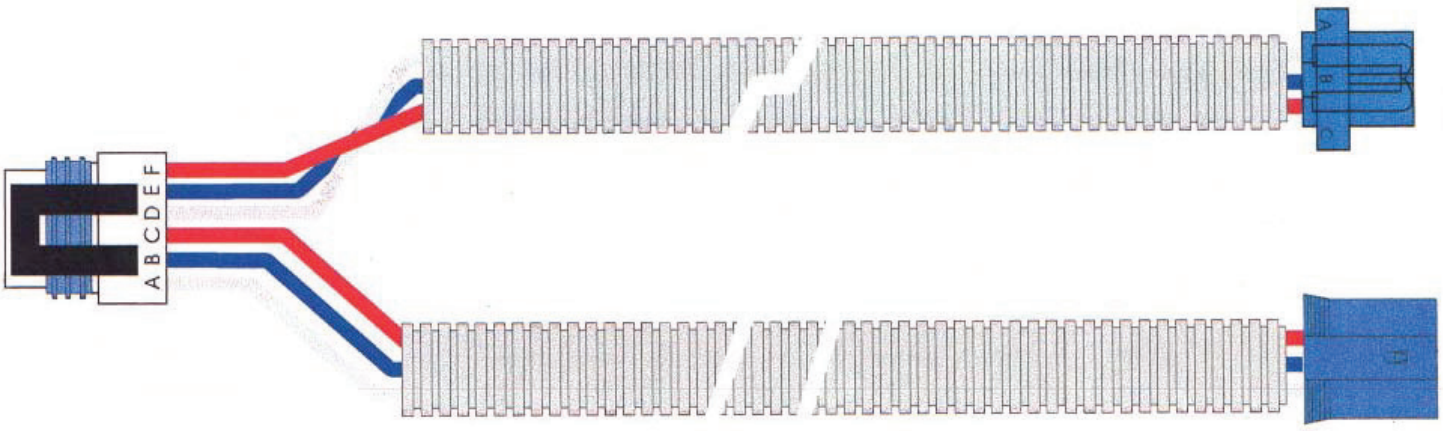

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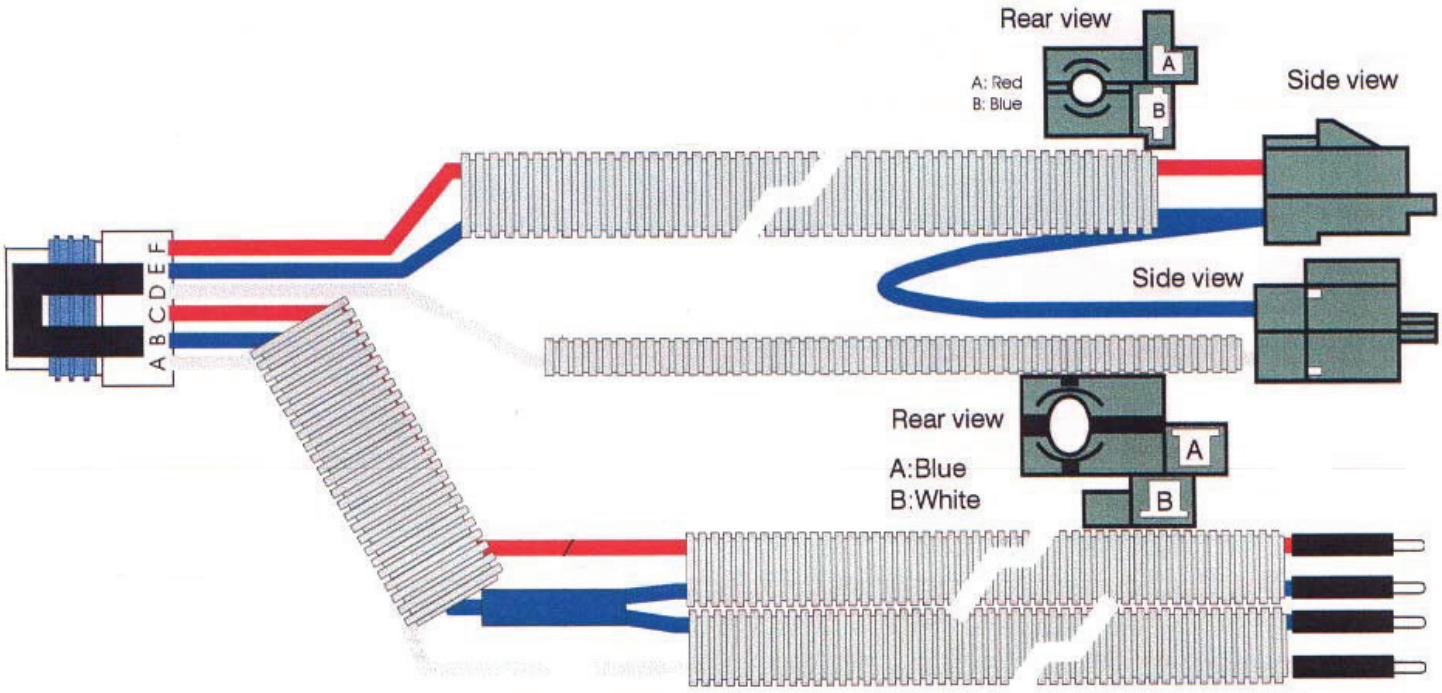

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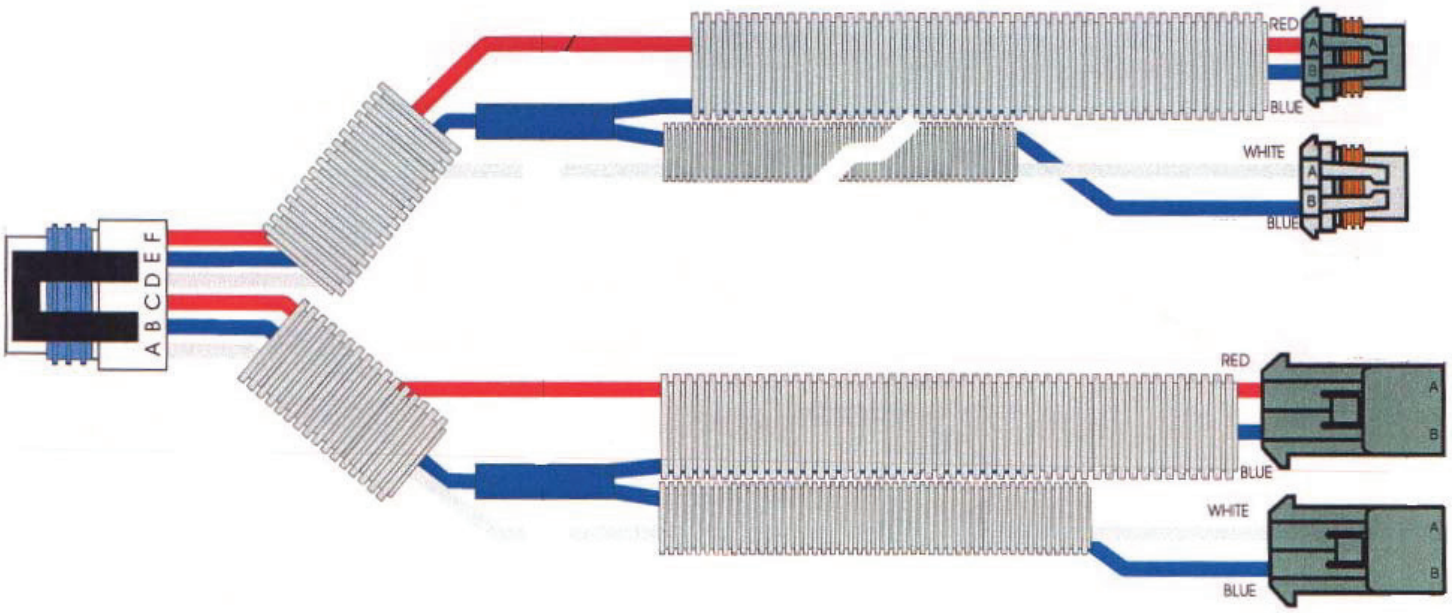

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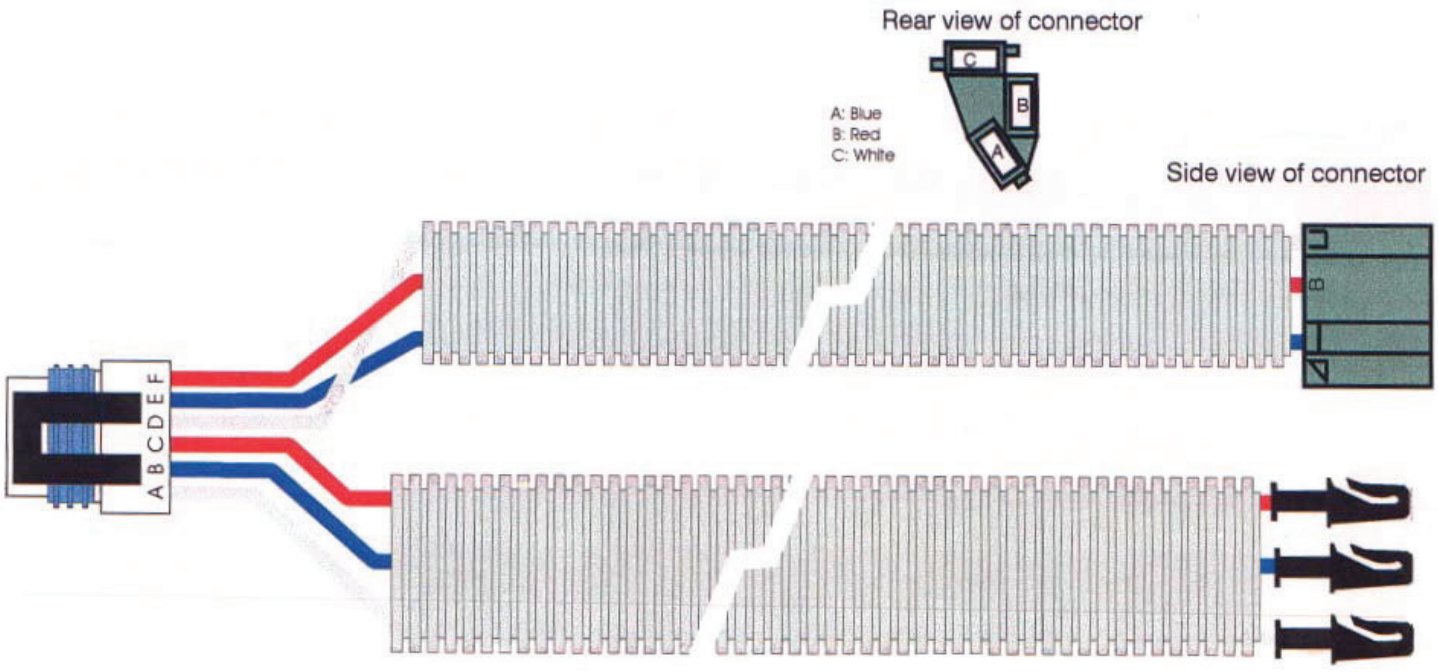

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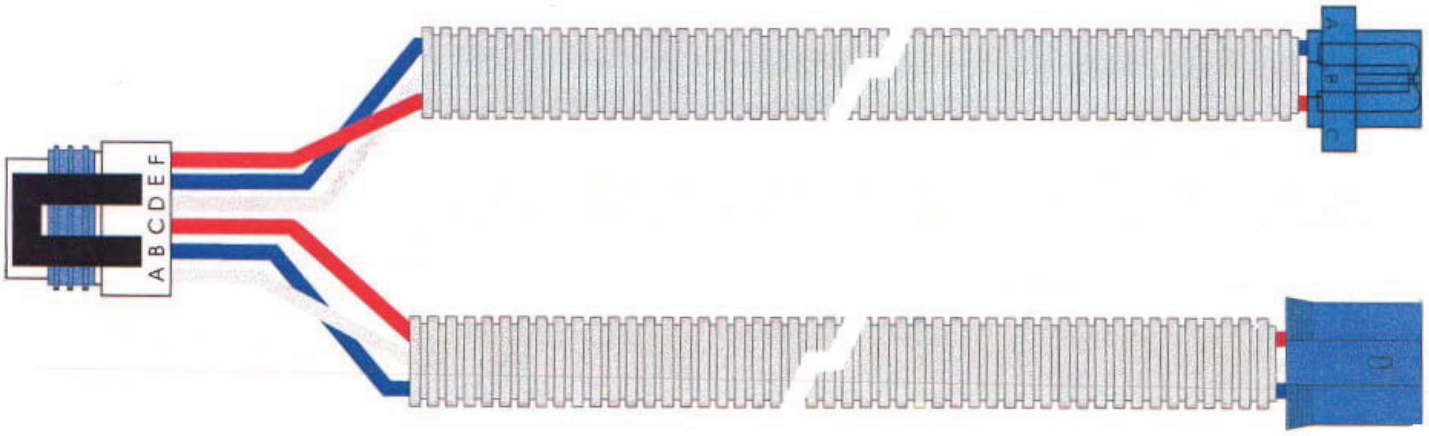

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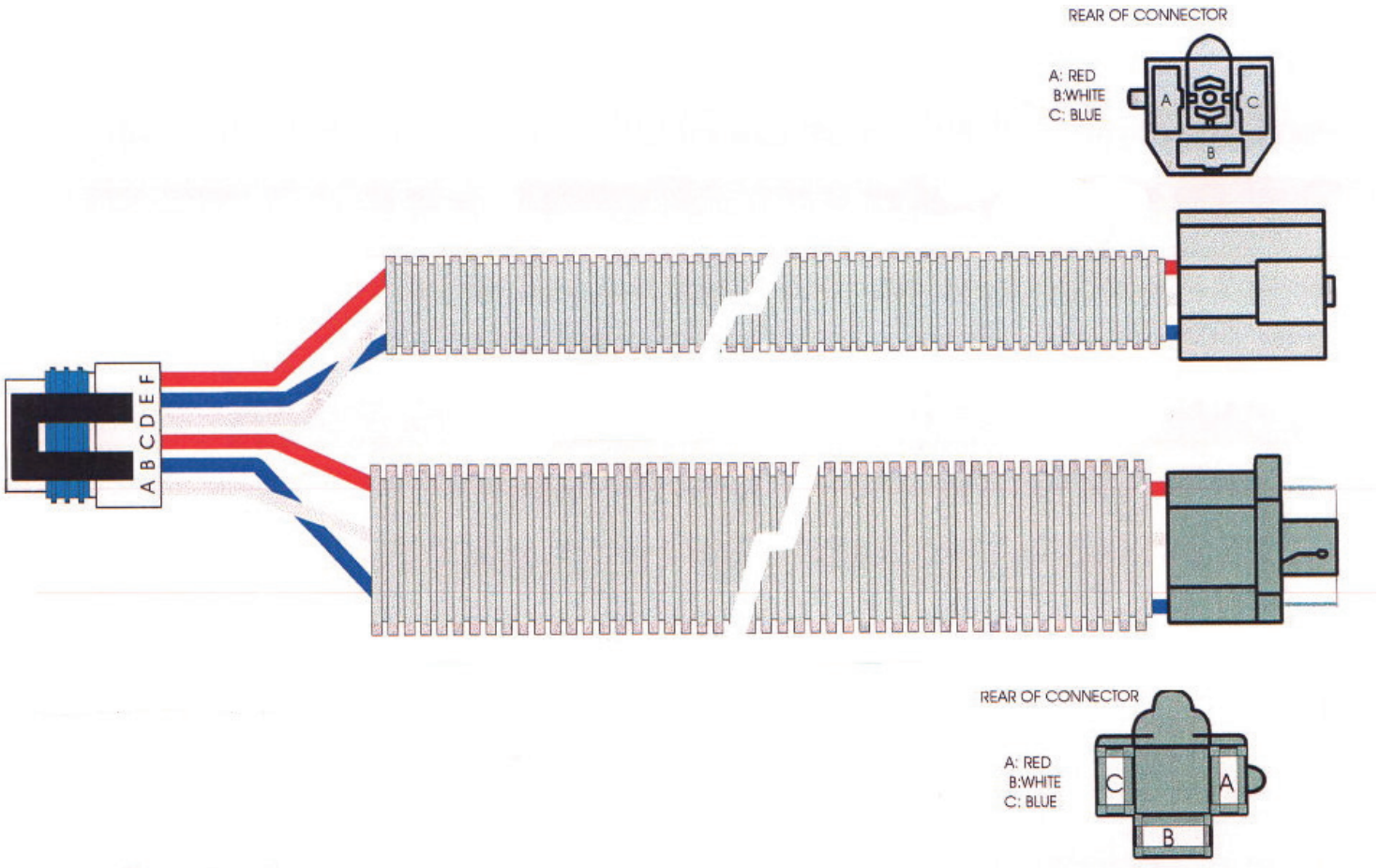

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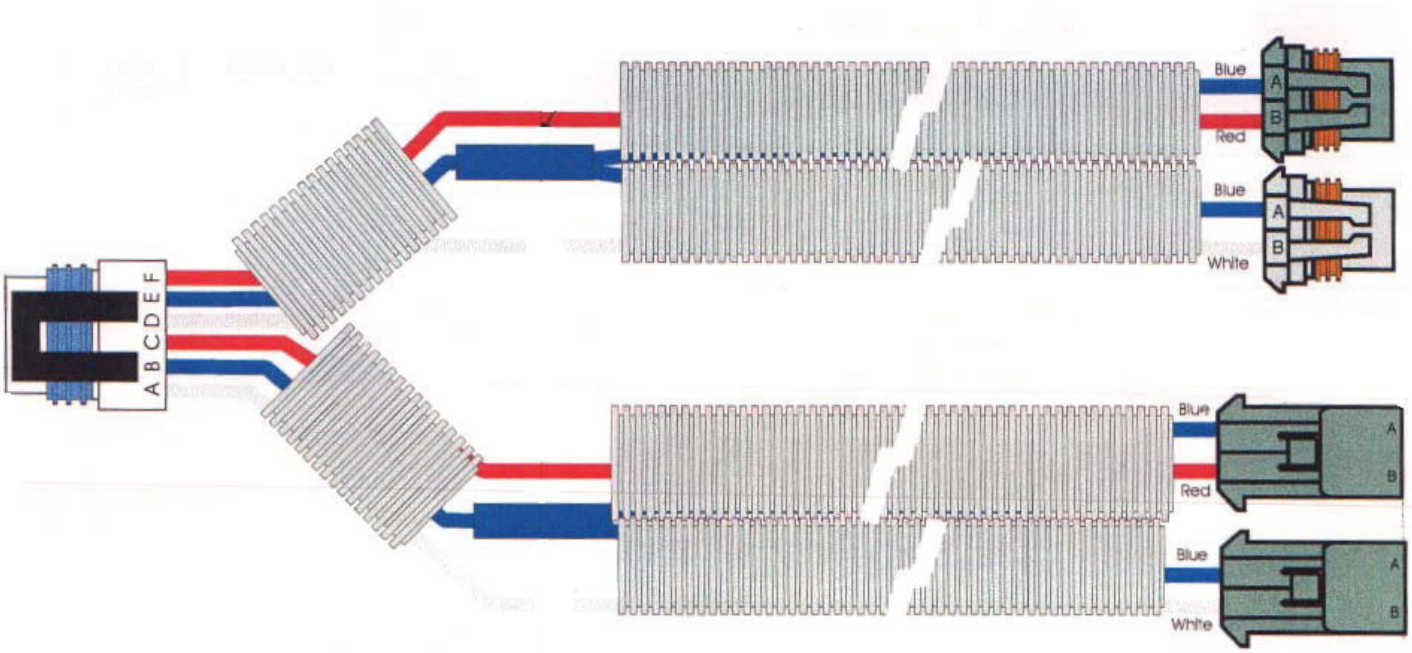

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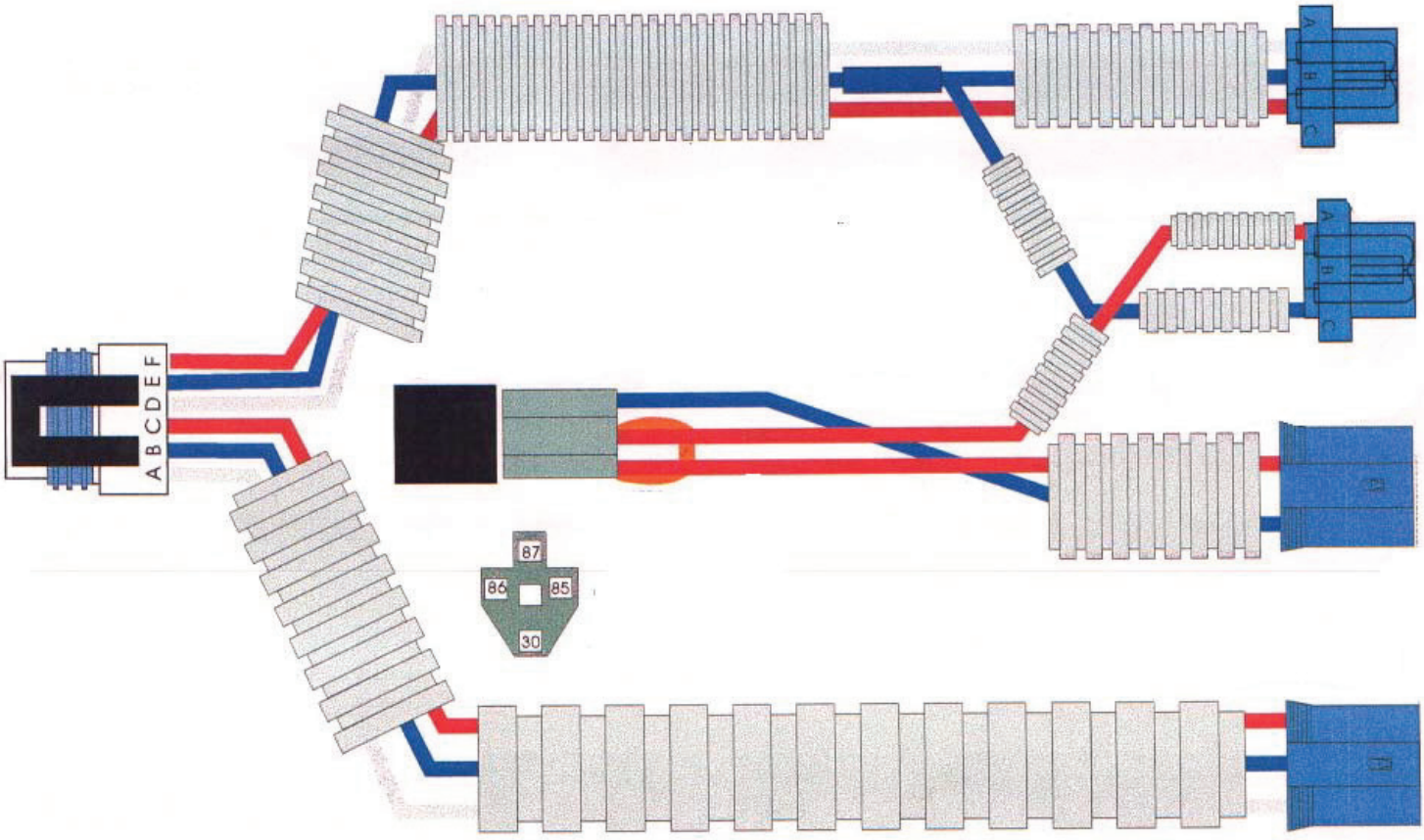
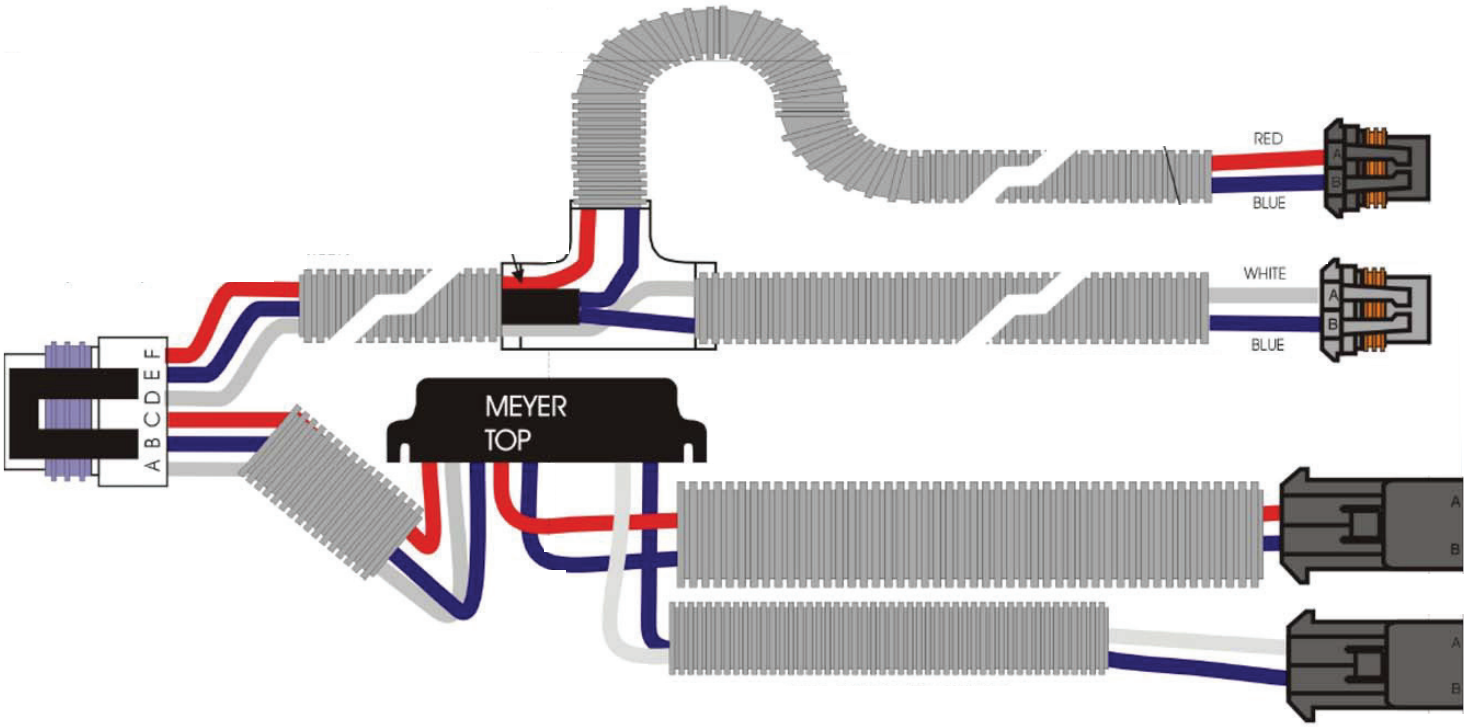


07213 Adapter Harness



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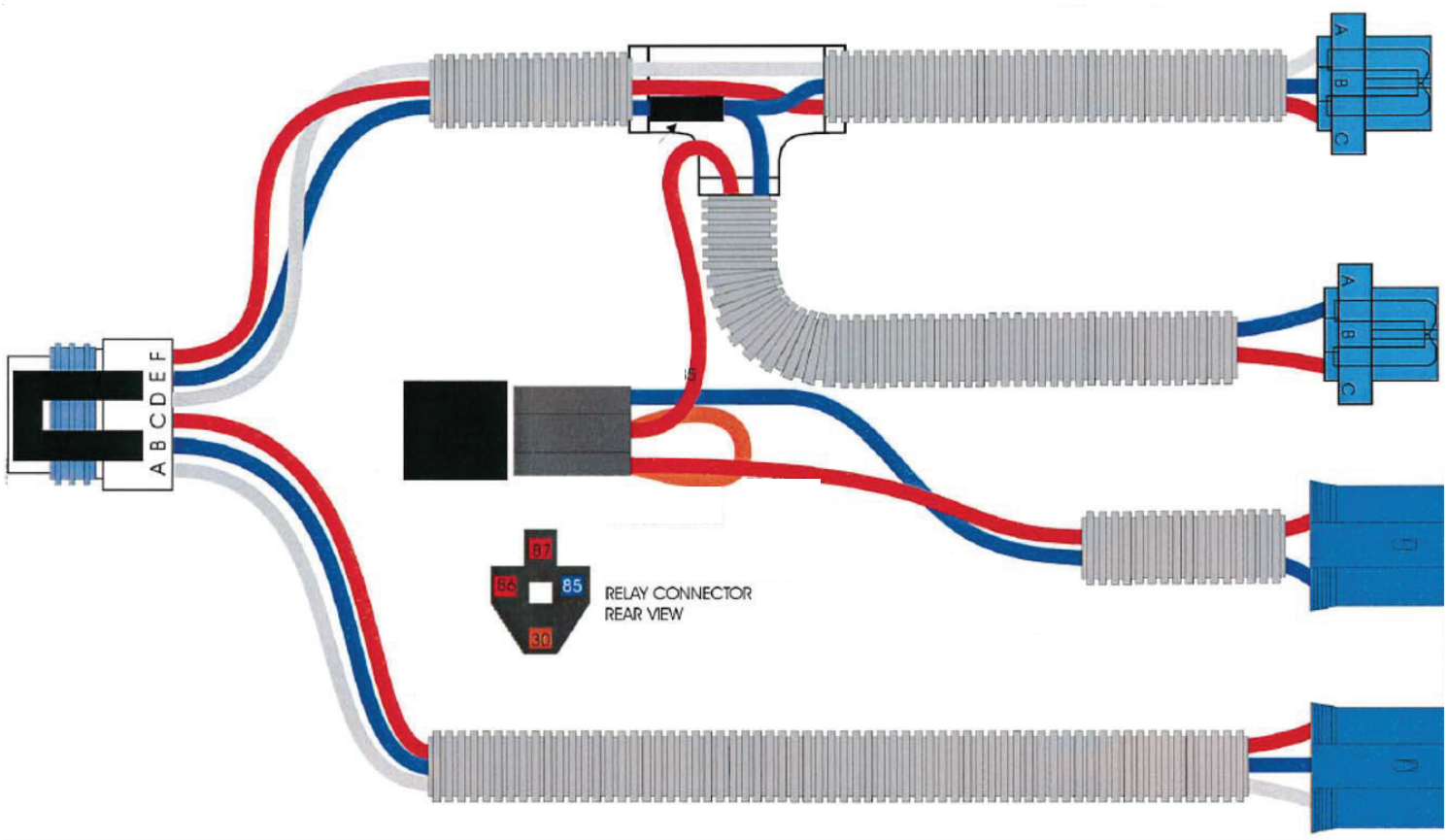
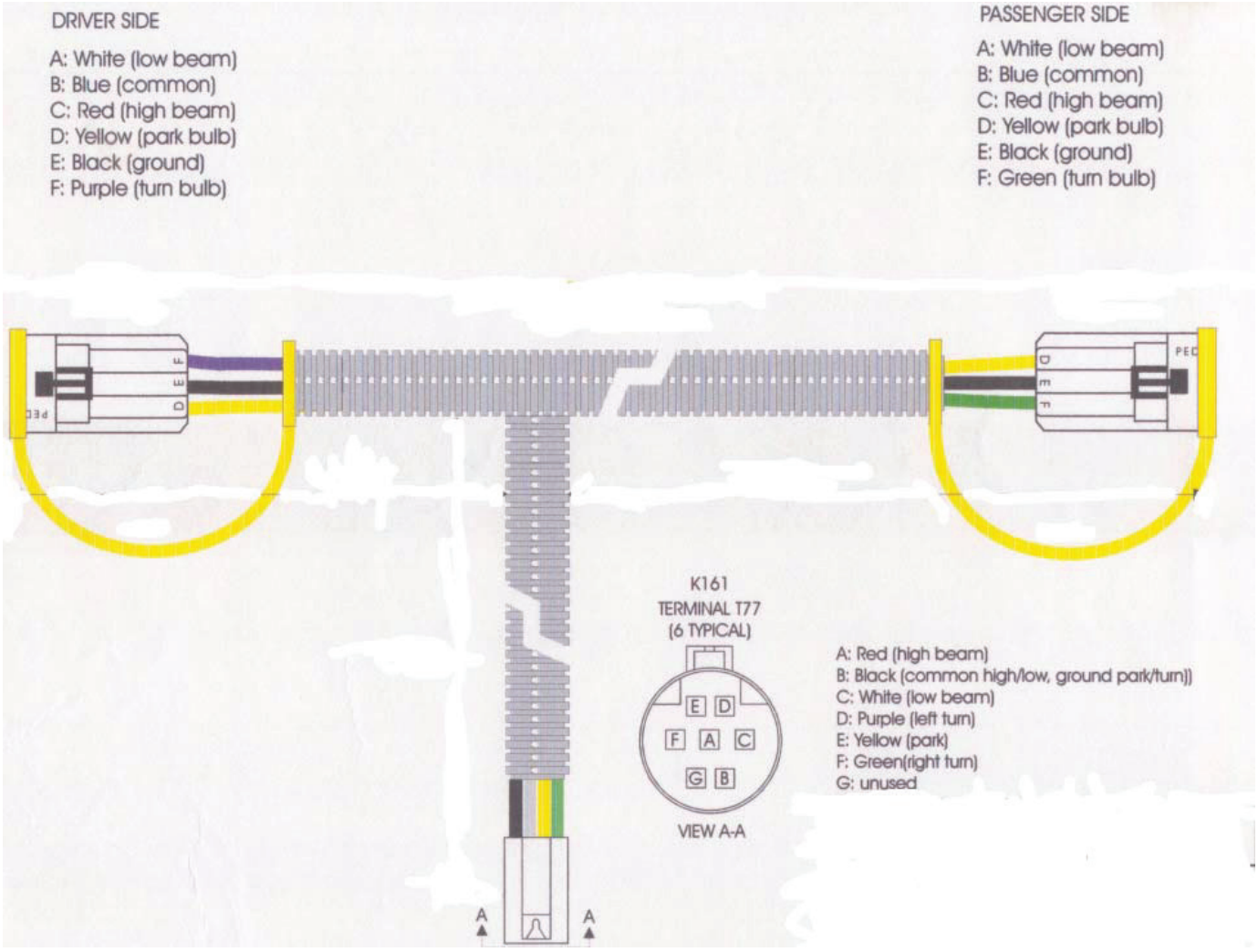


07403 Adapter Harness



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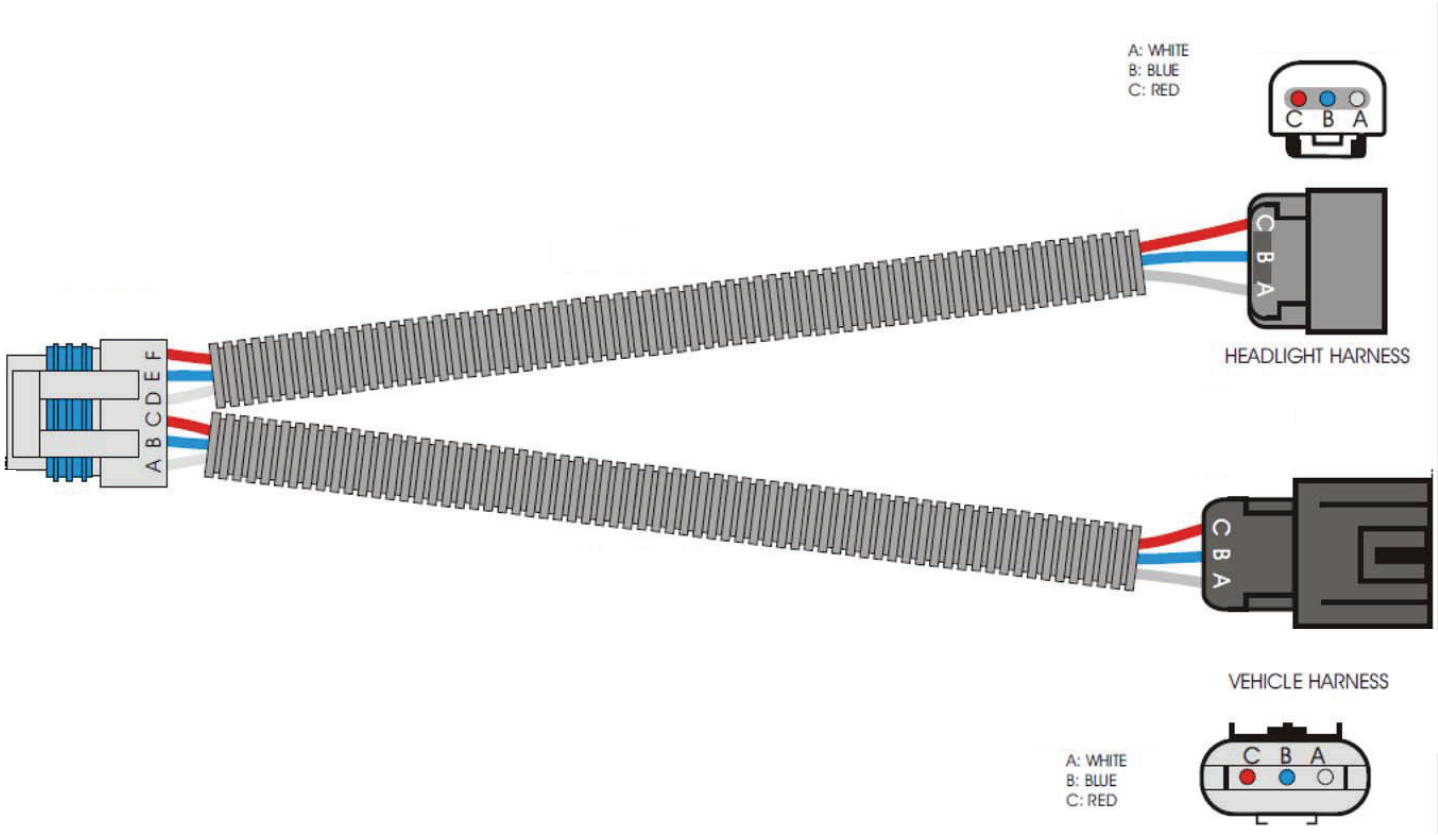

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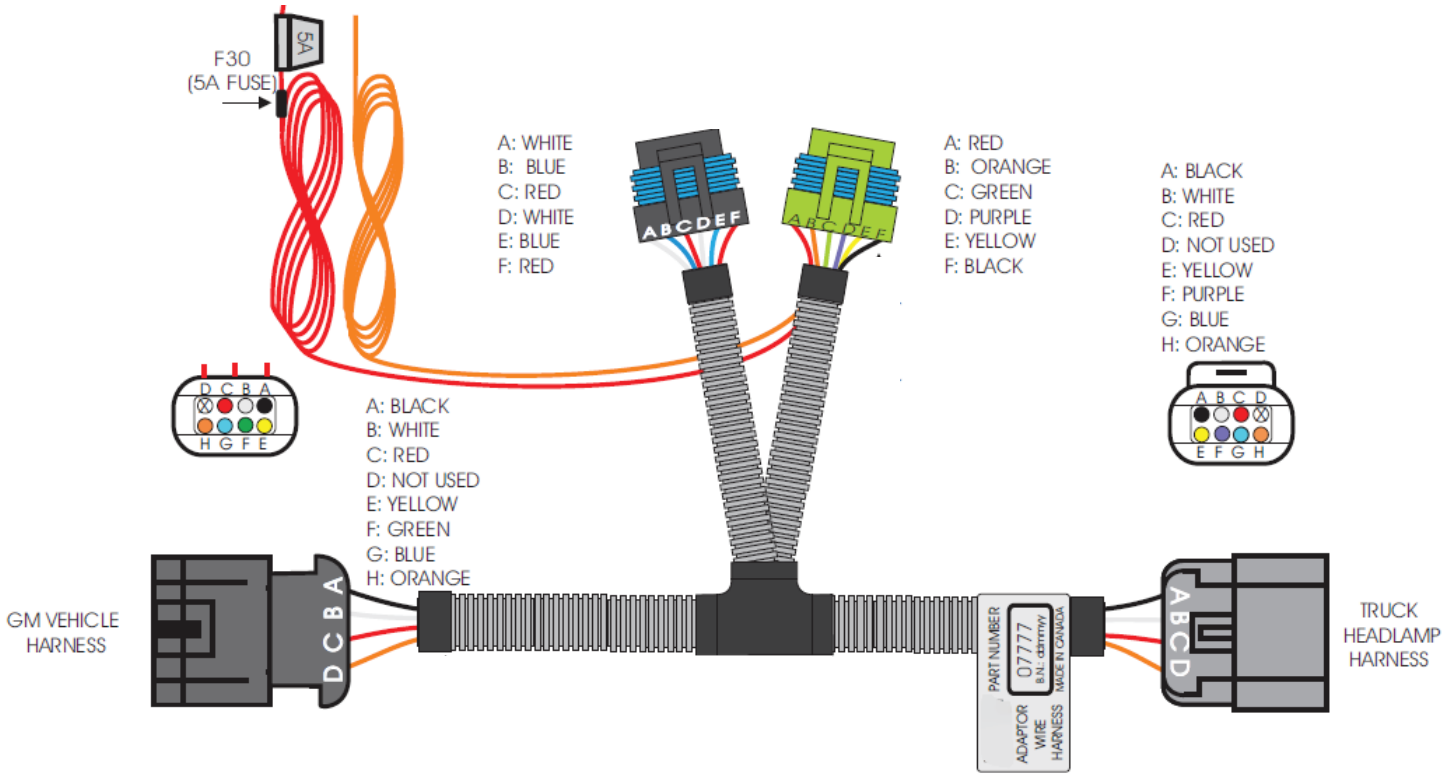

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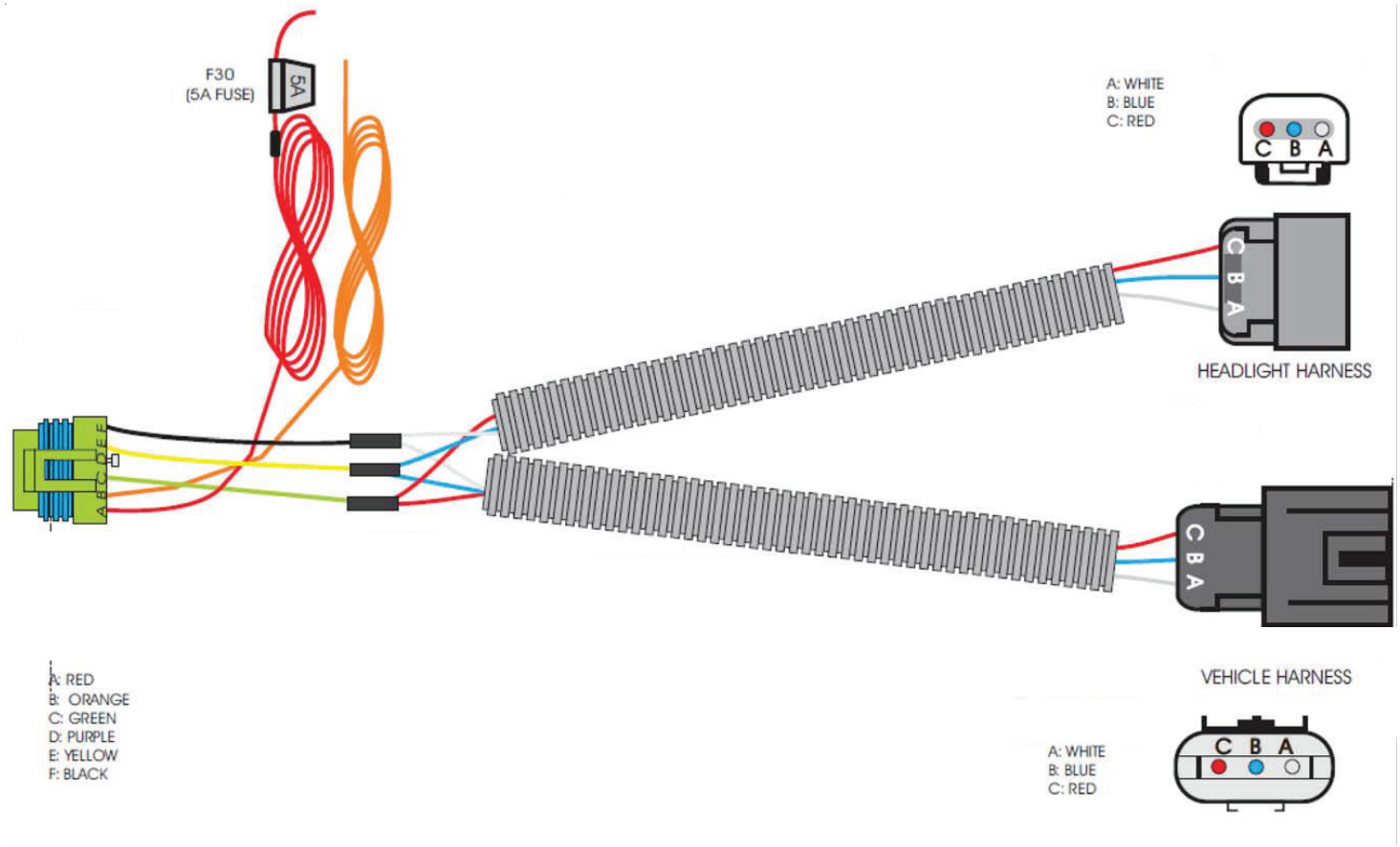

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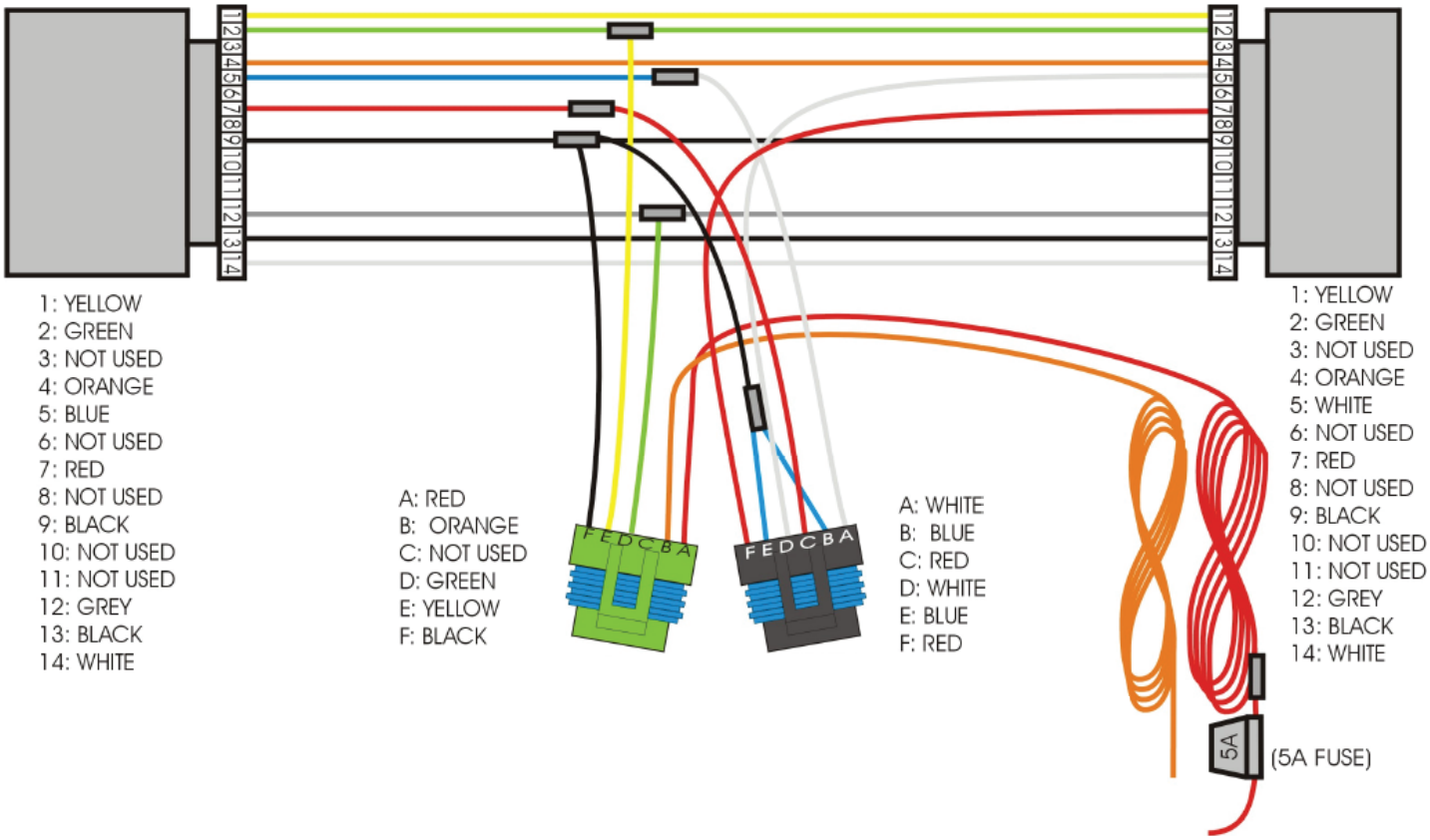
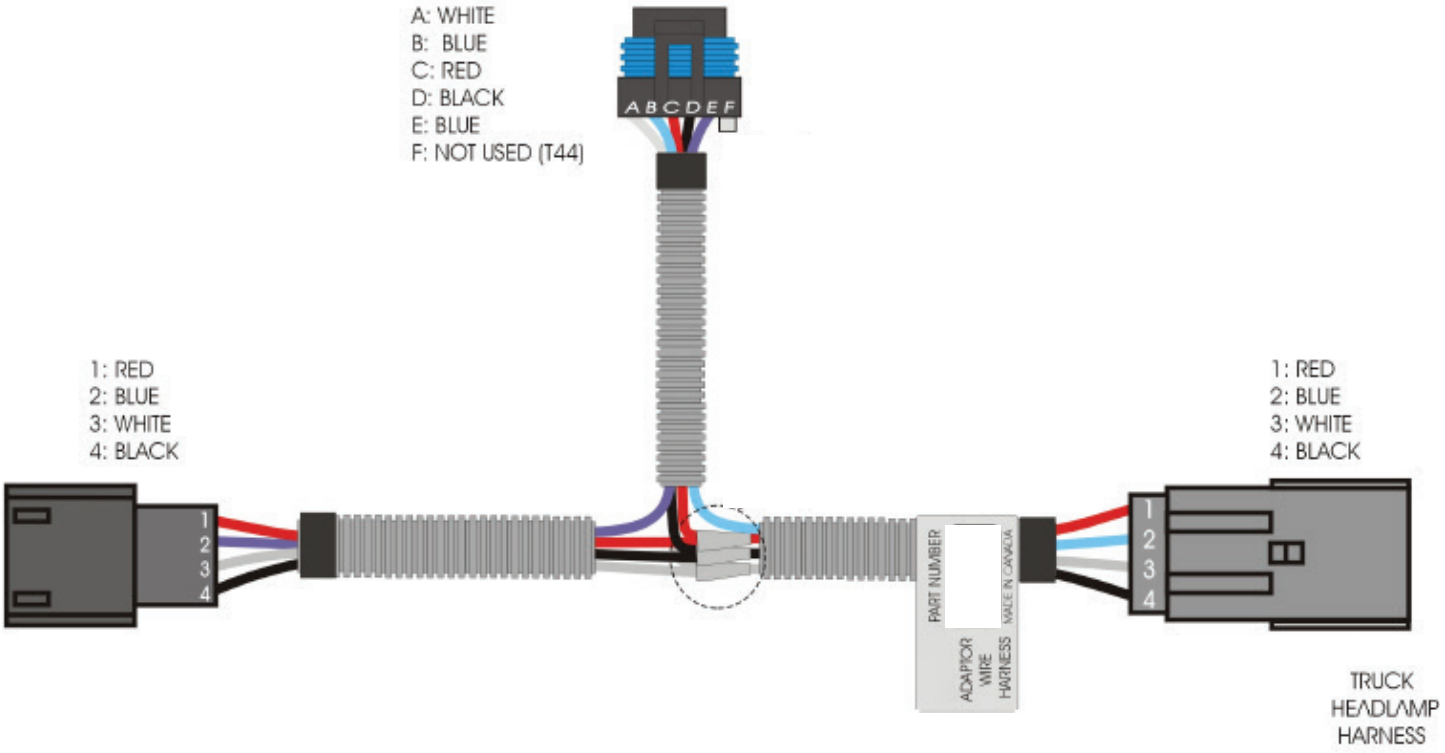
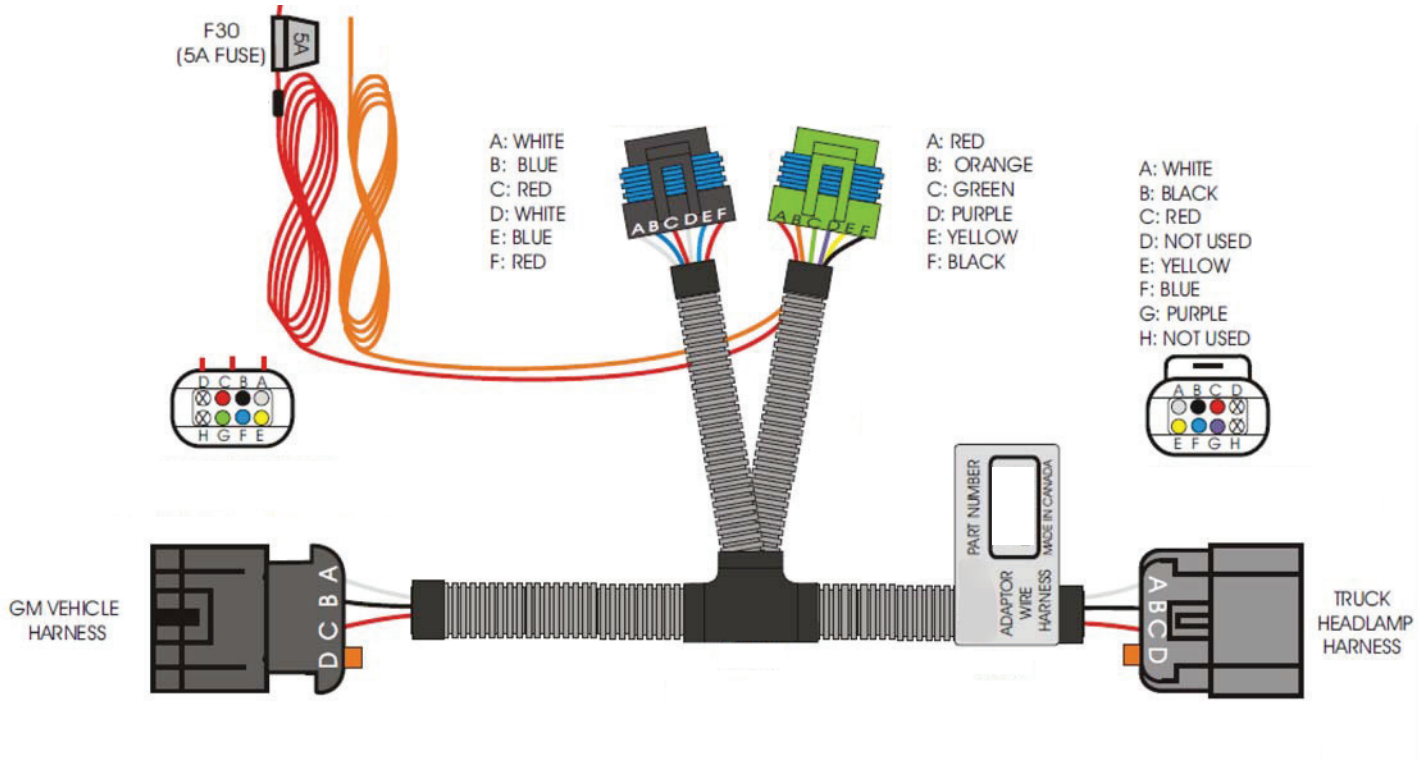


07747 Adapter Harness

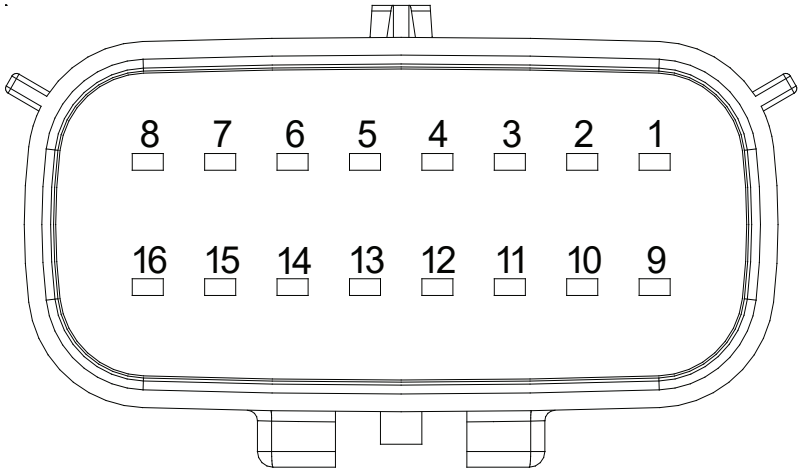


07333 Adapter Harness



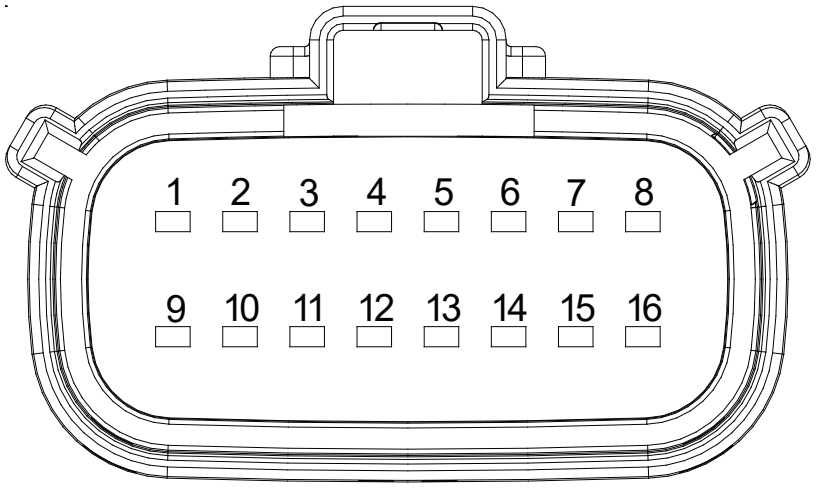
A: WHITE
B: BLACK
C: RED
D: NOT USED
E: YELLOW
F: BLUE
G: GREEN
H: NOT USED

23039/23059 Harness Pin Out



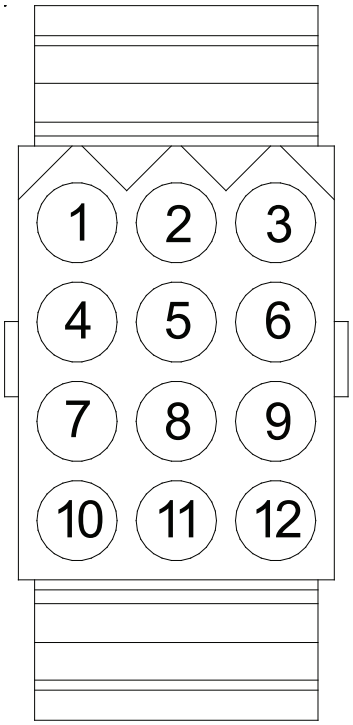
23039
Molex 33482-1601

Cavity	Color	Function E-73	Function V-73	Function V-73H	Function PB-73
1	Orange	Low Beam Relay	Low Beam Relay	Low Beam Relay	Low Beam Relay
2	Green	"C" Solenoid	S2	S3	S3
3	Brown	Hi Beam Relay	Hi Beam Relay	Hi Beam Relay	Hi Beam Relay
4	Red	"B" Solenoid	S3	S2	S1
5	White	Motor Solenoid	Motor Solenoid	Motor Solenoid	Motor Solenoid
6	Blue	Not Used	S5	S7	S4
7	Black	"A" Solenoid	S1	S1	S2
8	Yellow	Not Used	S6	S6	S6
9	Yellow	Park Signal	Park Signal	Park Signal	Park Signal
10	Green	Left Turn Signal	Left Turn Signal	Left Turn Signal	Left Turn Signal
11	Green/Black	Right Turn Signal	Right Turn Signal	Right Turn Signal	Right Turn Signal
12	Brown	Ground	Ground	Ground	Ground
13	Not Used	Not Used	Not Used	Not Used	Not Used
14	Not Used	Not Used	Not Used	Not Used	Not Used
15	Not Used	Not Used	Not Used	Not Used	Not Used
16	Purple	Not Used	S4	S5	S5



23059
Molex 33472-1601

Cavity	Color	Function E-73	Function V-73	Function V-73H	Function PB-73
1	Orange	Low Beam Relay	Low Beam Relay	Low Beam Relay	Low Beam Relay
2	Green	"C" Solenoid	S2	S3	S3
3	Brown	Hi Beam Relay	Hi Beam Relay	Hi Beam Relay	Hi Beam Relay
4	Red	"B" Solenoid	S3	S2	S1
5	White	Motor Solenoid	Motor Solenoid	Motor Solenoid	Motor Solenoid
6	Blue	Not Used	S5	S7	S4
7	Black	"A" Solenoid	S1	S1	S2
8	Yellow	Not Used	S6	S6	S6
9	Yellow	Park Signal	Park Signal	Park Signal	Park Signal
10	Green	Left Turn Signal	Left Turn Signal	Left Turn Signal	Left Turn Signal
11	Green/Black	Right Turn Signal	Right Turn Signal	Right Turn Signal	Right Turn Signal
12	Brown	Ground	Ground	Ground	Ground
13	Not Used	Not Used	Not Used	Not Used	Not Used
14	Not Used	Not Used	Not Used	Not Used	Not Used
15	Not Used	Not Used	Not Used	Not Used	Not Used
16	Purple	Not Used	S4	S5	S5

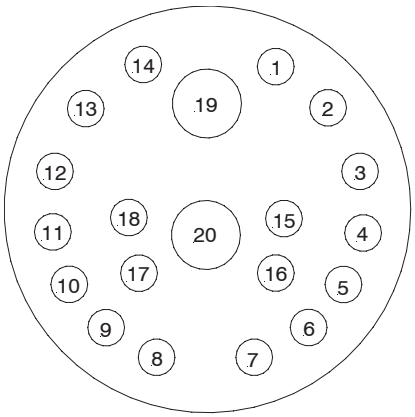


23059
Tyco 770099-1

Cavity	Color	Function E-73	Function V-73	Function V-73H	Function PB-73
1	Blue	Ignition	Ignition	Ignition	Ignition
2	White	Motor Solenoid	Motor Solenoid	Motor Solenoid	Motor Solenoid
3	Green	“C” Solenoid	S2	S3	S3
4	Red	“B” Solenoid	S3	S2	S1
5	Black	“A” Solenoid	S1	S1	S2
6	Green	Hi Beam Relay	Hi Beam Relay	Hi Beam Relay	Hi Beam Relay
7	Yellow	Not Used	S6	S6	S6
8	Brown	Aux	Aux	Aux	Aux
9	Yellow	Low Beam Relay	Low Beam Relay	Low Beam Relay	Low Beam Relay
10	Blue	Not Used	S5	S7	S4
11	Brown	Ground	Ground	Ground	Ground
12	Purple	Not Used	S4	S5	S5

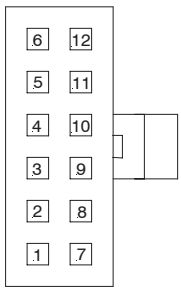
Universal One Piece Harness Plug Schematic

22691 VEHICLES SIDE HARNESS

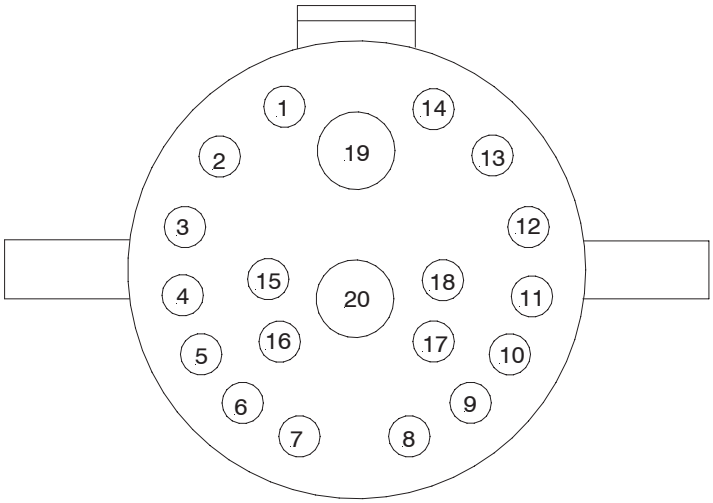


Cavity	Color	Function E-58H/E-61	Function E-68	Function V-68
14	Red	"B" Solenoid	"B" Solenoid	S1 Solenoid
13	Green	"C" Solenoid	"C" Solenoid	S3 Solenoid
12	Black	"A" Solenoid	"A" Solenoid	S2 Solenoid
11	Yellow	Not Used	"D" Solenoid	S5 Solenoid
10	White	Low Beam	Low Beam	Low Beam
9	Red	High Beam	High Beam	High Beam
8	Yellow	Park	Park	Park
7	Yellow	Park	Park	Park
6	Red	High Beam	High Beam	High Beam
5	White	Low Beam	Low Beam	Low Beam
4	Black	Park & Turn Ground	Park & Turn Ground	Park & Turn Ground
3	Purple	Not Used	"E" Solenoid	S7 Solenoid
2	Gray	Not Used	Dis-mount	Not Used
1	Blue/White	Not Used	Mount	S6 Solenoid
15	Blue/Red	High & Low Ground	High & Low Ground	High & Low Ground
16	Dark Green	Turn Signal	Turn Signal	Turn Signal
17	Dark Green	Turn Signal	Turn Signal	Turn Signal
18	Blue/Red	High & Low Ground	High & Low Ground	High & Low Ground
19	Red	Motor Pos.	Motor Pos.	Motor Pos.
20	Black	Motor Neg.	Motor Neg.	Motor Neg.

22691 VEHICLES SIDE HARNESS (controller)



Cavity	Color	Function E-58H/E-61	Function E-68	Function V-68
1	Red	"B" Solenoid	"B" Solenoid	S1 Solenoid
2	Green	"C" Solenoid	"C" Solenoid	S3 Solenoid
3	Black	"A" Solenoid	"A" Solenoid	S2 Solenoid
4	White	Motor Solenoid	Motor Solenoid	Motor Solenoid
5	Blue	Accessory Power	Accessory Power	Accessory Power
6	Black/White	Ground	Ground	Ground
7	Orange	Plow Light Module	Plow Light Module	Plow Light Module
8	Yellow	Not Used	"D" Solenoid	S5 Solenoid
9	Purple	Not Used	"E" Solenoid	S7 Solenoid
10	Light Blue	Not Used	Reverse Signal	Not Used
11	Gray	Not Used	Dis-mount	Ground
12	Blue White	Not Used	Mount	S6 Solenoid

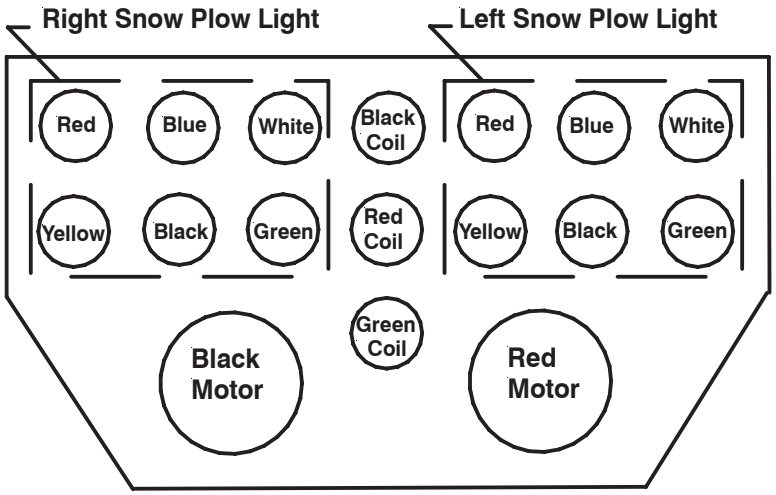


22692 (E-58H & E-61), 22694 (E-68) & 22696 (V-68) VEHICLES SIDE HARNESS

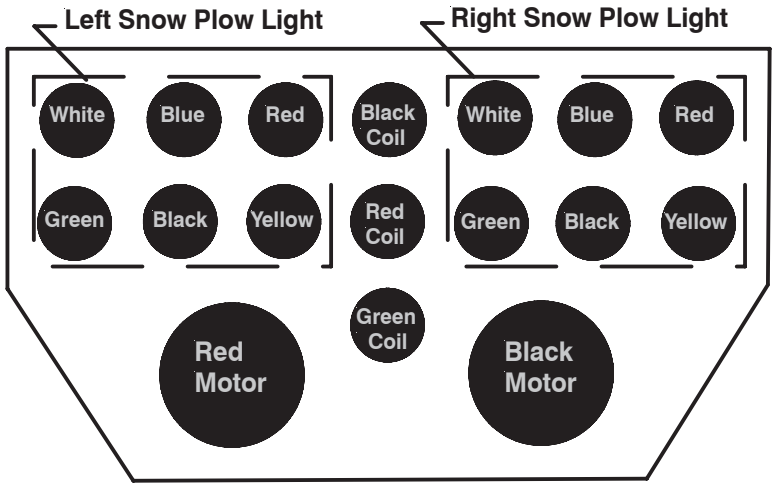
Cavity	Color	Function E-58H/E-61	Function E-68	Function V-68
1	Blue/White	Not Used	Mount	S6 Solenoid
2	Gray	Not Used	Dis-mount	Not Used
3	Purple	Not Used	"E" Solenoid	S7 Solenoid
4	Black	Park & Turn Ground	Park & Turn Ground	Park & Turn Ground
5	White	Low Beam	Low Beam	Low Beam
6	Red	High Beam	High Beam	High Beam
7	Yellow	Park	Park	Park
8	Yellow	Park	Park	Park
9	Red	High Beam	High Beam	High Beam
10	White	Low Beam	Low Beam	Low Beam
11	Yellow	Not Used	"D" Solenoid	S5 Solenoid
12	Black	"A" Solenoid	"A" Solenoid	S2 Solenoid
13	Green	"C" Solenoid	"C" Solenoid	S3 Solenoid
14	Red	"B" Solenoid	"B" Solenoid	S1 Solenoid
15	Blue/Red	High & Low Ground	High & Low Ground	High & Low Ground
16	Dark Green	Turn Signal	Turn Signal	Turn Signal
17	Dark Green	Turn Signal	Turn Signal	Turn Signal
18	Blue/Red	High & Low Ground	High & Low Ground	High & Low Ground
19	Red	Motor Pos.	Motor Pos.	Motor Pos.
20	Black	Motor Neg.	Motor Neg.	Motor Neg.

One Piece Harness Plug Schematic
22261/22262/22604/22610

Plug Vehicle Side



Socket Hydraulic Side



Night Saber Plow Light Color Code:

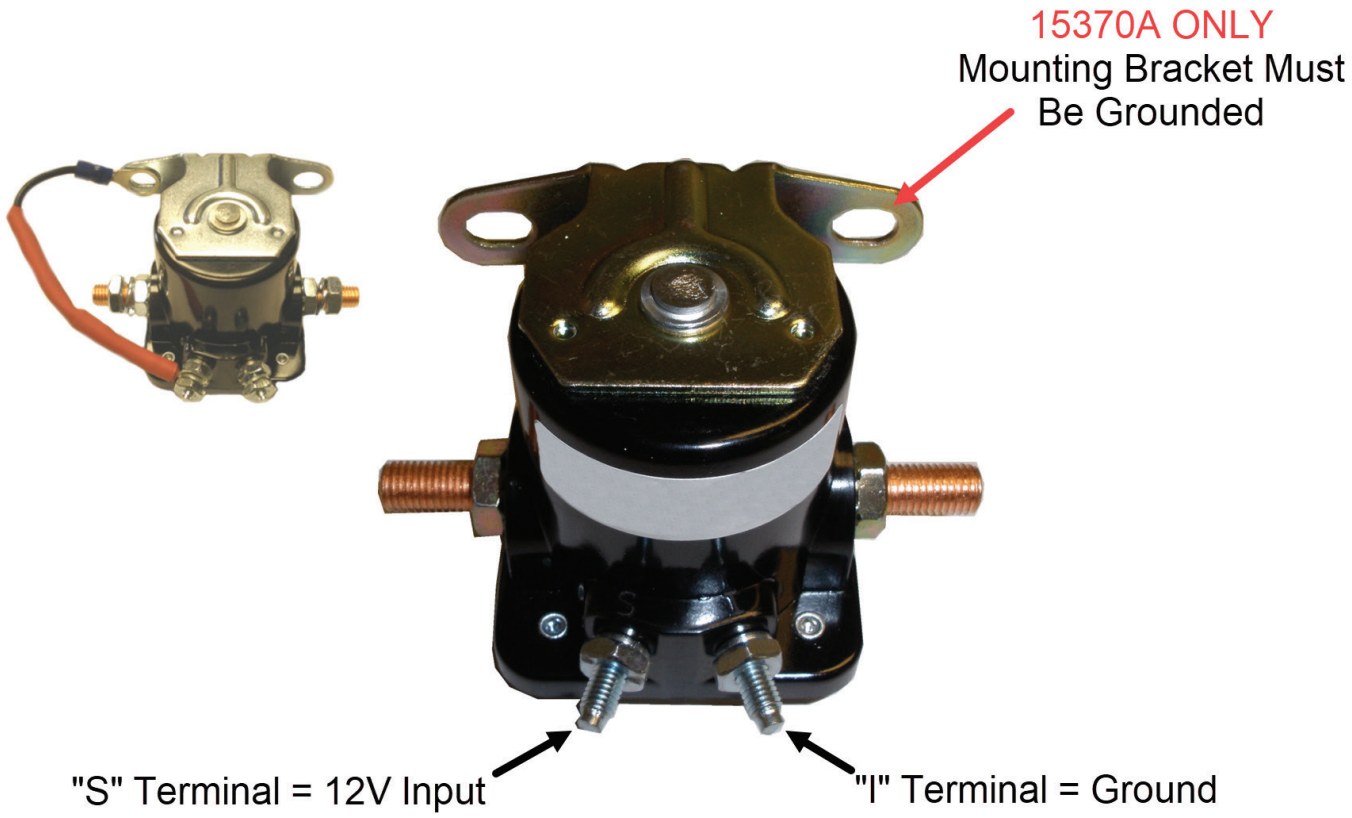
Red - High Beam
White - Low Beam
Blue - Common
Green - Turn Signal
Yellow - Parking Lamp
Black - Ground

Instructions

15370 and 15370A 12V Solenoid Starters

See diagram below for wiring installation of 15370 and 15370A 12V Soldenoid Starters.

Note: For 15370A models ONLY, the mounting bracket must be grounded in order to operate.



Installation Instructions

Standard Operating System Conversion Kit 08098

⚠CAUTION GENERAL INFORMATION

Always disconnect battery prior to installation.

SAFETY PRECAUTIONS should be used when Quik Lift® is in a RAISED position.

LOWER plow to the ground when vehicle is PARKED.

OVERHAUL and SERVICE information is covered on separate instructions.

Note:

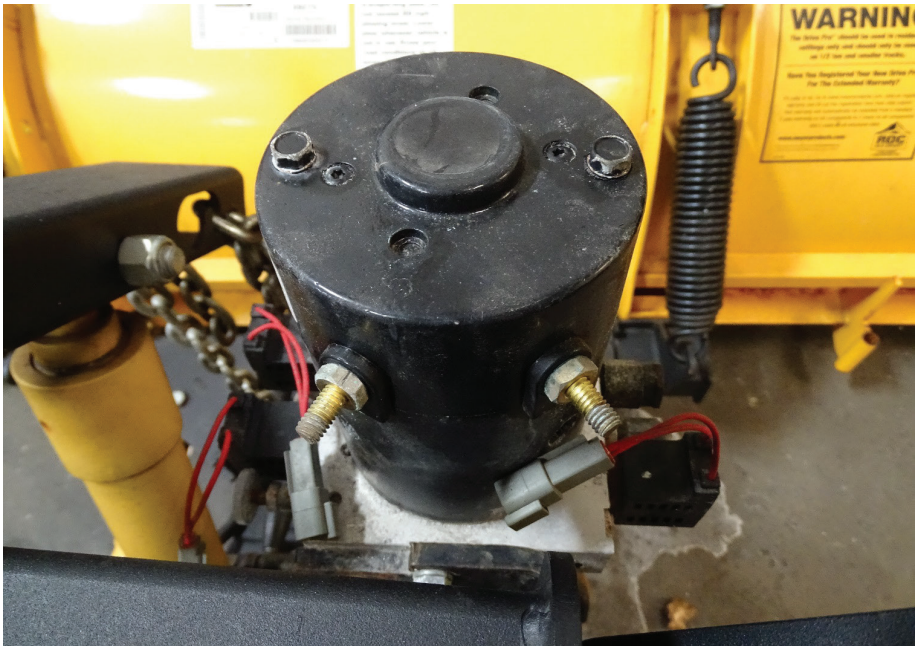
1. Connect ground cable to negative side of battery for a solid connection to ground.
2. ⚠CAUTION Route all cables away from moving engine parts, Manifolds, and sharp sheet metal.
3. For weather protection, coat all connections with Meyer Dielectric Grease Part No. 15632
4. The vehicle must be equipped with a "Heavy Duty Battery" (70 Amp, Hr. Min.), 550 C.C.A. and "Alternator" (60 Amp. Min.) to obtain maximum performance.
5. Follow these instructions explicitly. Warranty does not apply to a Meyer product which has been negligently or improperly assembled or installed.

NOTICE: Meyer Products LLC reserves the right, under its continuing product imporvement program, to change construction, design, details, specifications, and prices without notice or without incurring any obligation. Meyer Products LLC assumes no responsibility for installations not made in accordance with these instructions.

Parts List

Item	Part #	QTY	Description
	08098	1	New SOS Conversion Kit
1	15066	1	• Clamp
2	15220	1	• E73 Motor Solenoid Kit
3	23025	1	• Standard OP Sys Power Harness
4	23039	1	• DLX Plow Harness SOS
5	23046	1	• New SOS Motor Cable
6	23047	1	• DLX SOS Controller STRT Blade
7	23048	1	• New SOS To Deutsch Conn.
8	23057	1	• 7 Pin RND 4 Pin Flat T-Conn.
9	23059	1	• SOS HFP Vehicle Harness

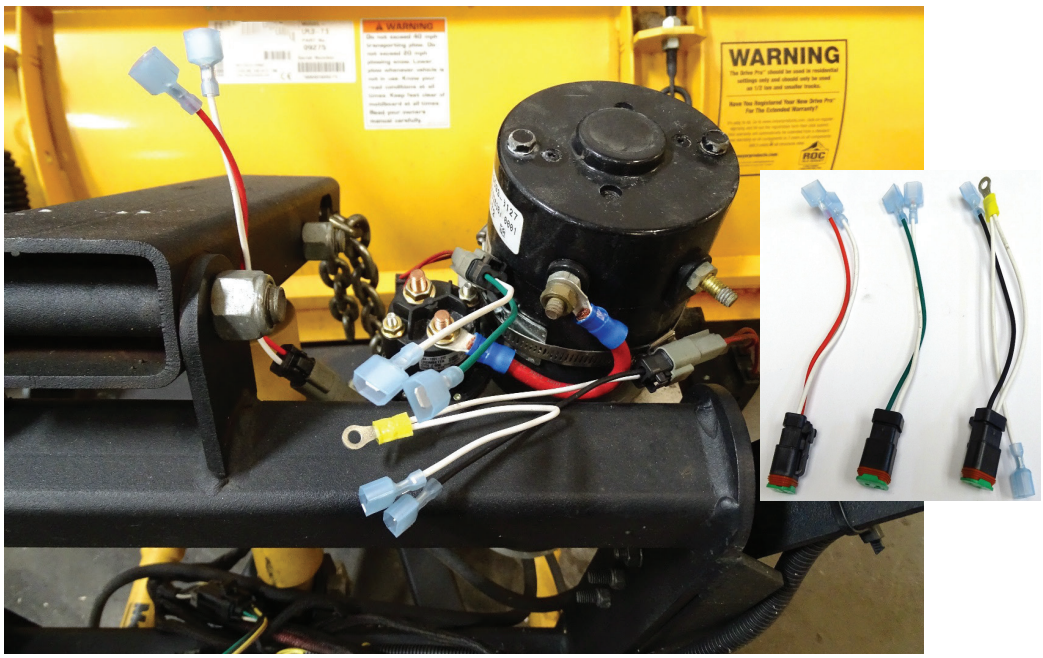
Step 1: Remove the plus wiring from the hydraulic unit.



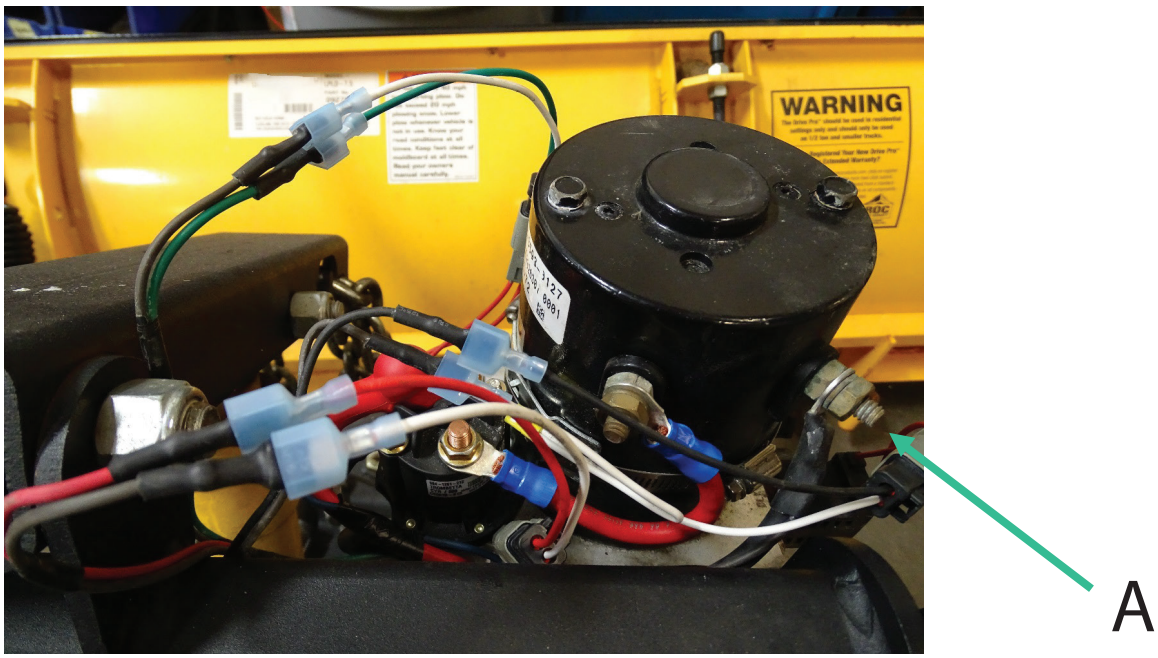
Step 2: Clamp on Motor Solenoid (2) using Clamp (1) to the hydraulic unit.

Step 3: Attach SOS Motor Cable (5) from the Motor Solenoid (2) to the hydraulic unit motor as shown.

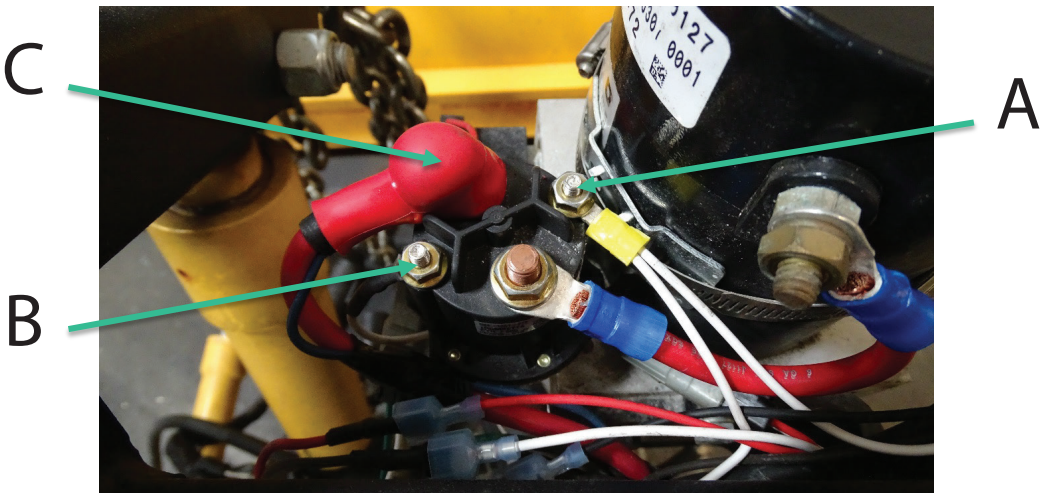
Step 4: Connect the three coil adapters (7) (red, green and black) to their respective coils.



Step 5: Connect the three coil adapters (7) (red, green and black) to the Harness (4) (brown to white, red to red, black to black and green to green). Connect the heavy black wire to the motor ground as shown (A). If motor does not have a ground lug connect heavy black wire to the Hydraulic Block.



Step 6: Connect White wire loop to the small terminal nearest the hydraulic motor (A), the brown wire loop to the small terminal farthest from the hydraulic motor (B). Connect the heavy red wire to the large terminal of the motor solenoid (C).



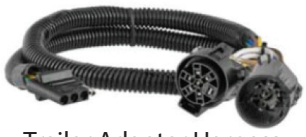
Step 7: Carefully route the wires so the hydraulic unit cover can be installed.

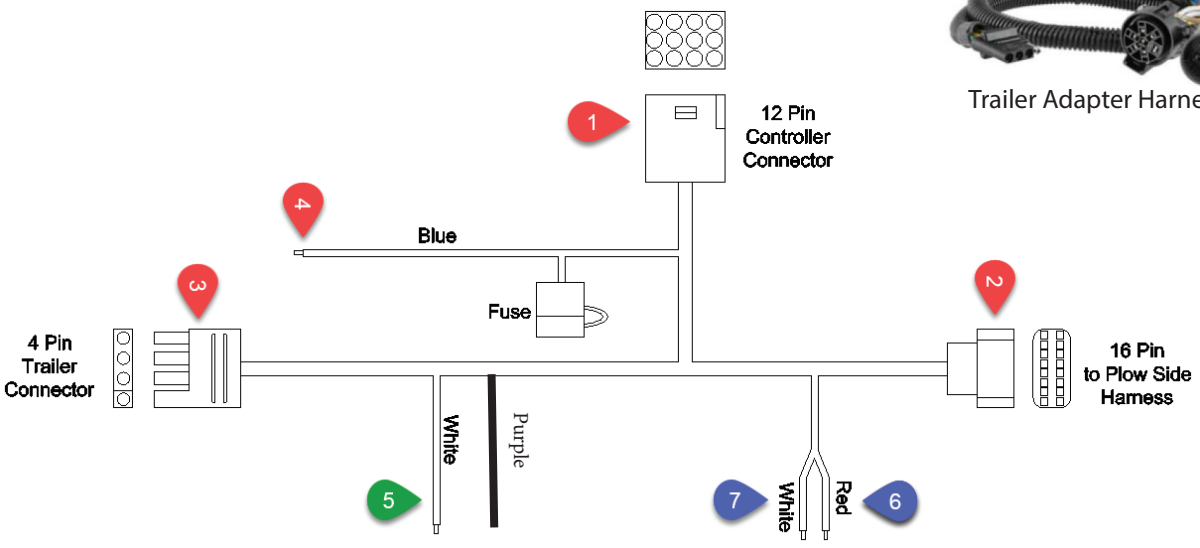
Step 8: To install the SOS vehicle harness (9) route the 12 pin connector (1)into vehicle's cab and plug into controller. Route the 16 pin connector (2) to the front of the vehicle and plug into the plow side harness. Route the 4 pin connector (4) to rear of vehicle and plug into vehicle's trailer harness using the trailer adapter harness (8) (50). Use cable ties to ensure the harness is secured to the vehicle's frame. The WHITE wire (5) will connect to 2015 & Later GM vehicles with alternator relay. See Meyer Products Service Bulletin SB252. The PURPLE wire will connect to the 2015 & Later Ram vehicle snow plow lighting enable wire under the fuse panel.

The following two steps are optional and may be enforced by local law which requires your vehicle lights to be off while your plow lights are on and vice versa...

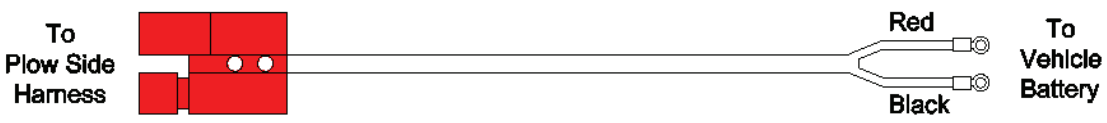
6) Connect the RED (6) to the HIGH beam function.

7) Connect the WHITE (7) to the LOW beam function.


Trailer Adapter Harness



Step 9: Carefully route the SOS Power Harness (3) wires through the vehicle's grille. Connect the terminals to the vehicle's battery. Red to Positive and Black to Negative..



Installation Instructions

Standard Operating System Conversion Kit 08487

⚠CAUTION GENERAL INFORMATION

Always disconnect battery prior to installation.

SAFETY PRECAUTIONS should be used when Quik Lift® is in a RAISED position.

LOWER plow to the ground when vehicle is PARKED.

OVERHAUL and SERVICE information is covered on separate instructions.

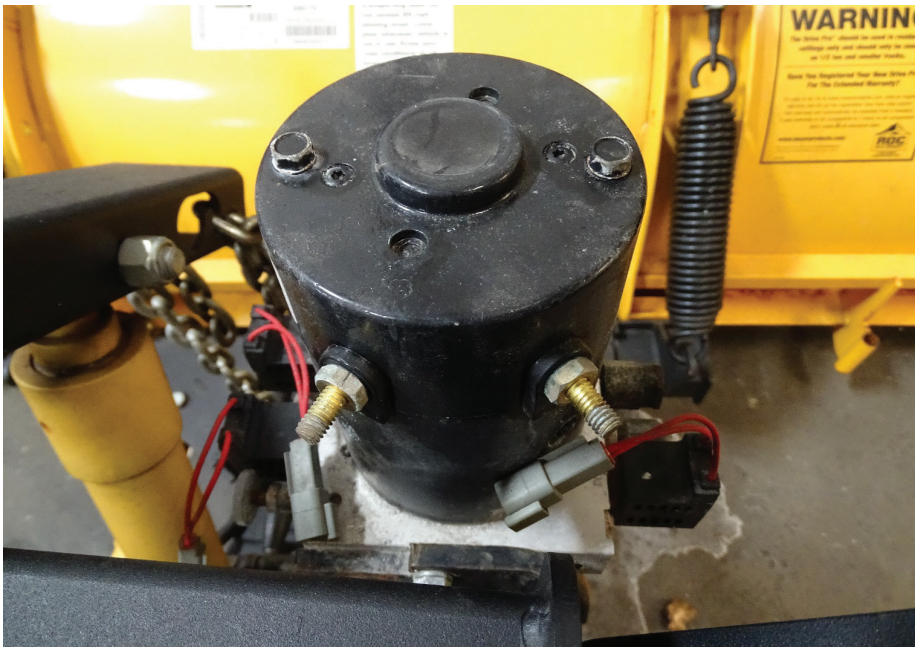
Note:
1. Connect ground cable to negative side of battery for a solid connection to ground.
2. **⚠CAUTION** Route all cables away from moving engine parts, Manifolds, and sharp sheet metal.
3. For weather protection, coat all connections with Meyer Dielectric Grease Part No. 15632
4. The vehicle must be equipped with a "Heavy Duty Battery" (70 Amp, Hr. Min.), 550 C.C.A. and "Alternator" (60 Amp. Min.) to obtain maximum performance.
5. Follow these instructions explicitly. Warranty does not apply to a Meyer product which has been negligently or improperly assembled or installed.

NOTICE: Meyer Products LLC reserves the right, under its continuing product imporvement program, to change construction, design, details, specifications, and prices without notice or without incurring any obligation. Meyer Products LLC assumes no responsibility for installations not made in accordance with these instructions.

Parts List

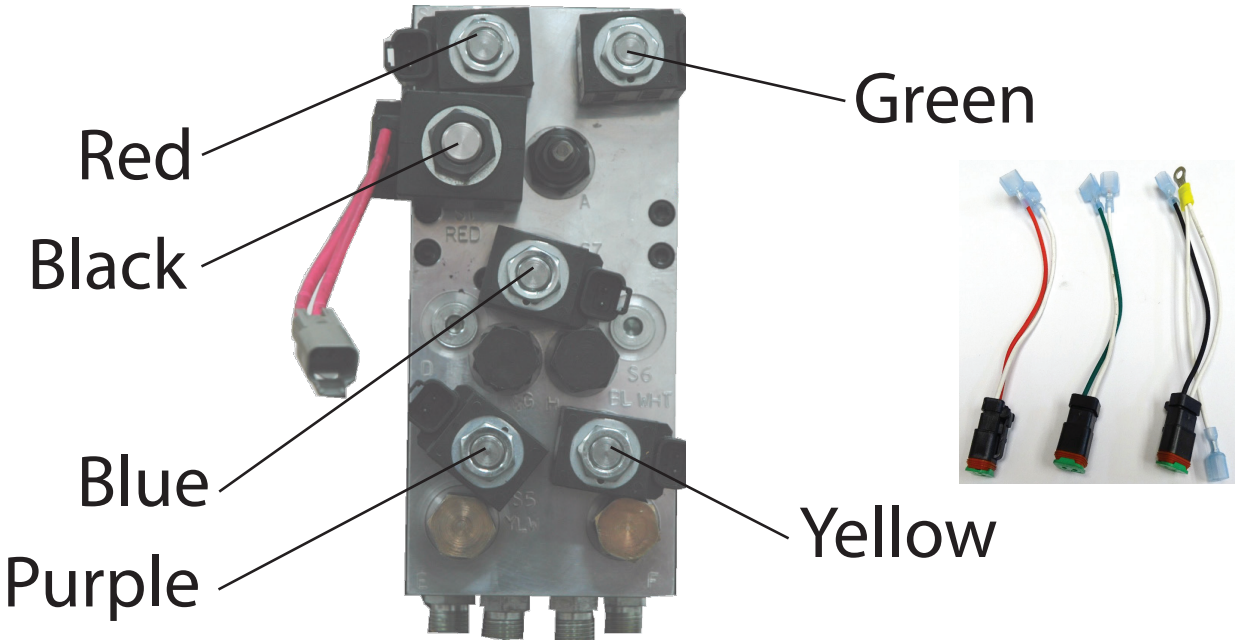
Item	Part #	QTY	Description
	08487	1	New SOS V70 Conversion Kit
1	15066	1	• Clamp
2	15220	1	• E73 Motor Solenoid Kit
3	23025	1	• Standard OP Sys Power Harness
4	23039	1	• DLX Plow Harness SOS
5	23046	1	• New SOS Motor Cable
6	23074	1	• DLX SOS Controller STRT Blade
7	23048	2	• New SOS To Deutsch Conn.
8	23057	1	• 7 Pin RND 4 Pin Flat T-Conn.
9	23059	1	• SOS HFP Vehicle Harness

Step 1: Remove the plus wiring from the hydraulic unit.

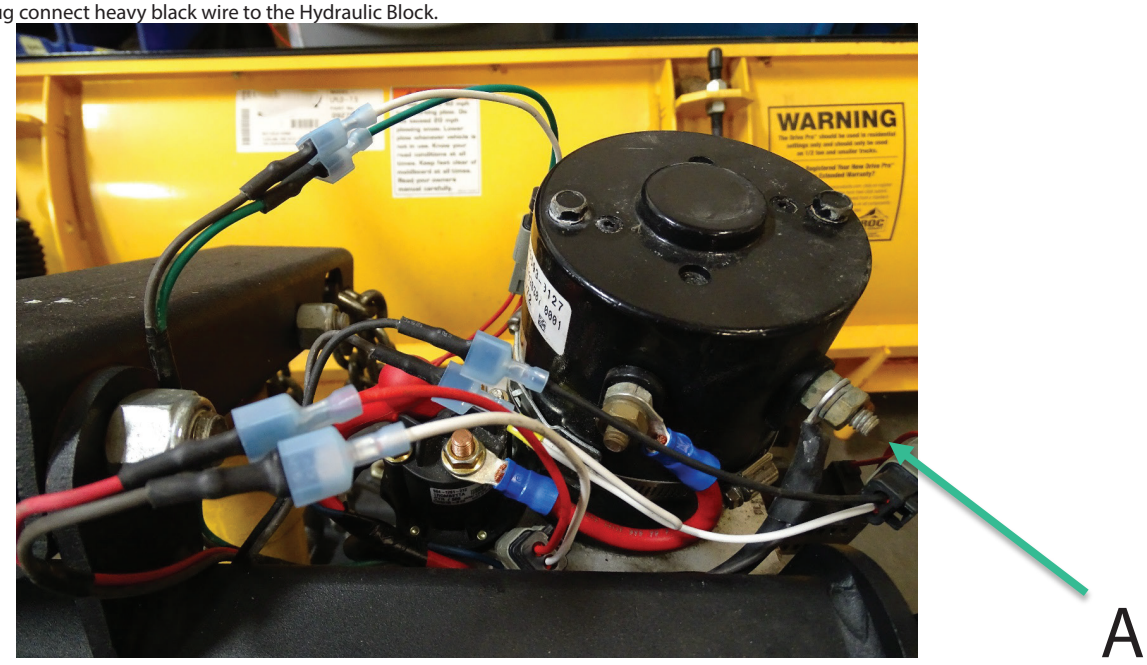


Step 2: Clamp on Motor Solenoid (2) using Clamp (1) to the hydraulic unit.

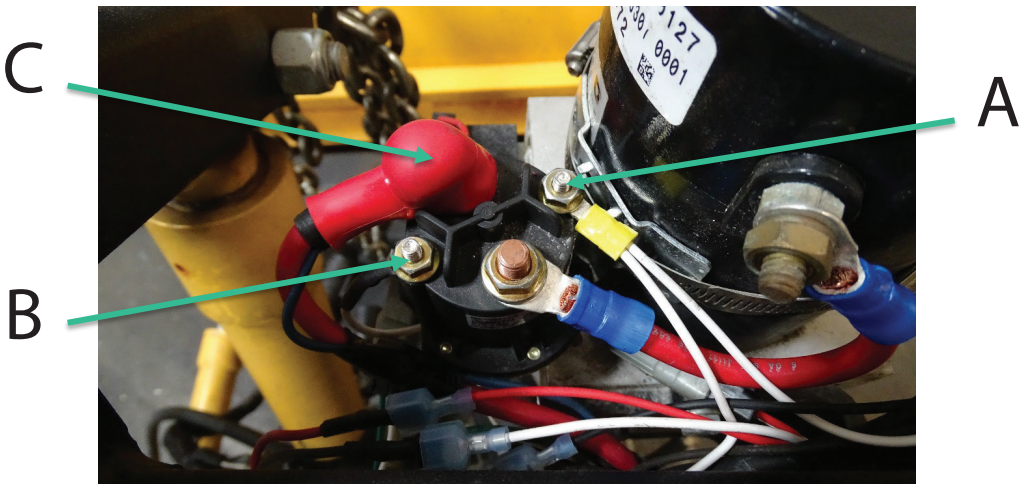
Step 3: Attach SOS Motor Cable (5) from the Motor Solenoid (2) to the hydraulic unit motor as shown.



Step 5: Connect the six coil adapters (7) (red, green, black, blue, purple and yellow) to the Harness (4) (brown to white, red to red, black to black, green to green, blue to blue, purple to purple and yellow to yellow). Connect the heavy black wire to the motor ground as shown (A). If motor does not have a ground lug connect heavy black wire to the Hydraulic Block.



Step 6: Connect White wire loop to the small terminal nearest the hydraulic motor (A), the brown wire loop to the small terminal farthest from the hydraulic motor (B). Connect the heavy red wire to the large terminal of the motor solenoid (C).



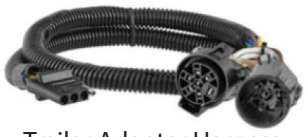
Step 7: Carefully route the wires so the hydraulic unit cover can be installed.

Step 8: To install the SOS vehicle harness (9) route the 12 pin connector (1)into vehicle's cab and plug into controller. Route the 16 pin connector (2) to the front of the vehicle and plug into the plow side harness. Route the 4 pin connector (4) to rear of vehicle and plug into vehicle's trailer harness using the trailer adapter harness (8) (50). Use cable ties to ensure the harness is secured to the vehicle's frame. The WHITE wire (5) will connect to 2015 & Later GM vehicles with alternator relay. See Meyer Products Service Bulletin SB252. The PURPLE wire will connect to the 2015 & Later Ram vehicle snow plow lighting enable wire under the fuse panel.

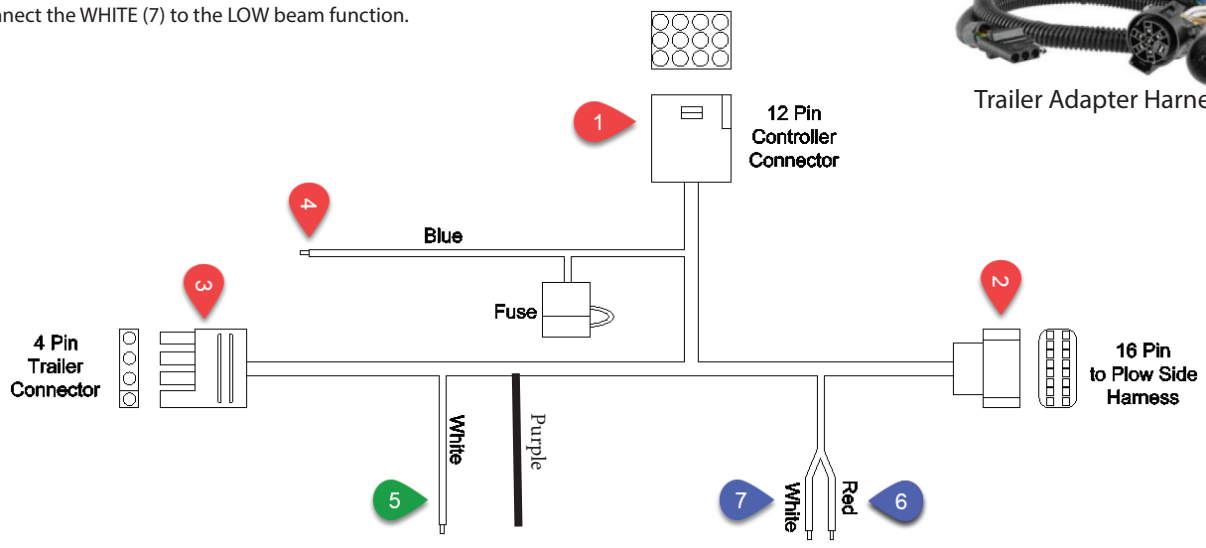
The following two steps are optional and may be enforced by local law which requires your vehicle lights to be off while your plow lights are on and vice versa...

6) Connect the RED (6) to the HIGH beam function.

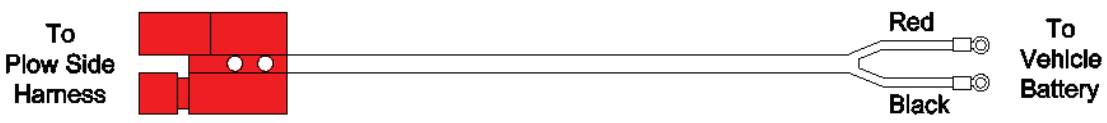
7) Connect the WHITE (7) to the LOW beam function.



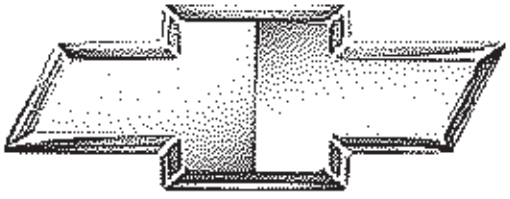
Trailer Adapter Harness



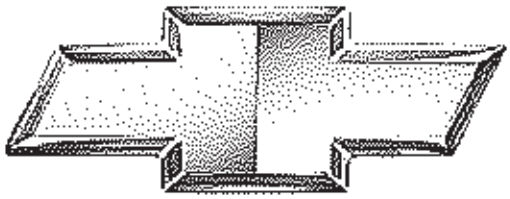
Step 9: Carefully route the SOS Power Harness (3) wires through the vehicle's grille. Connect the terminals to the vehicle's battery. Red to Positive and Black to Negative..



Vehicle Manufacturer Recommendations for Key On Ignition Service



Jeep



1999-2010 Chevrolet/GMC

Located on the Mid Bussed Electrical Center (BEC) on the firewall just left of the brake pedal. See Figure 1. The Special Equipment Option (SEO) connector has a key on source in the top row. See Figure 2 (2003-2010) or Figure 3 (2002).

Figure 1

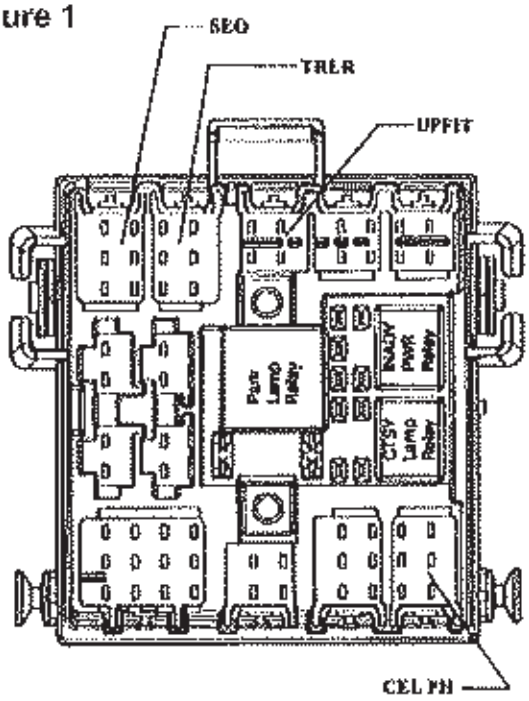
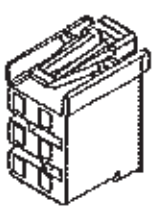


Figure 2

Connector	Packard 280 Series
Typical Connector	12193930 (F)
Color	BLK
Typical Terminal	12191479
Typical Cable Seal	n/a

Cavity	Wire Color	Circuit No.	Function	Fuse Rating
A	ORN	2340	Hot at all times	30 Amp - SEO2 Fuse
B	---	---	Not Used	---
C	PNK	739	Hot Run/Start	10 Amp - SEO IGN Fuse
D	YEL	243	Hot Acc/Run	10 Amp - SEO ACCY Fuse
E	ORN	4540	Hot at all times	15 Amp - SEO B1 Fuse
F	BLK	1050	Ground	---



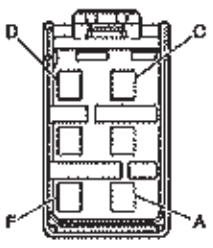
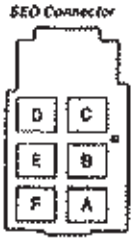


Figure 3

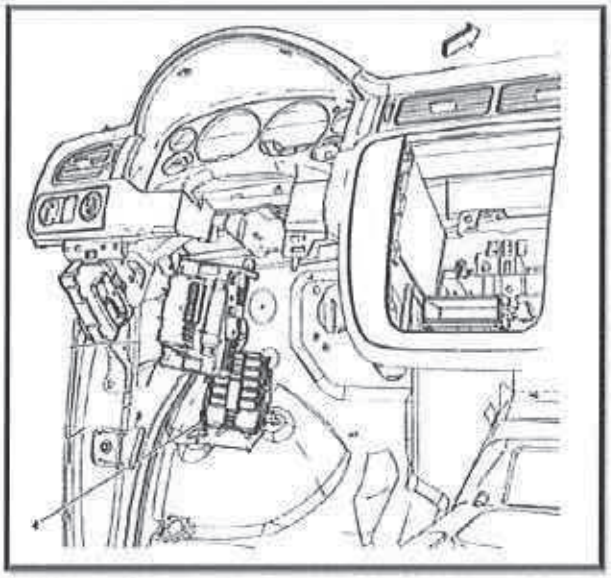
Mating Part: 12193930 Color: Black

Cavity	Wire Color	Circuit No.	Function
A	ORN	2340	Hot at all times
B	---	---	Not used
C	BLK	2550	Ground
D	YEL	243	Hot in Accessory or Run
E	PNK	739	Hot in Run or Start
F	ORN	2240	Hot at all times



MBEC -- Mid-Bussed Electrical Connector

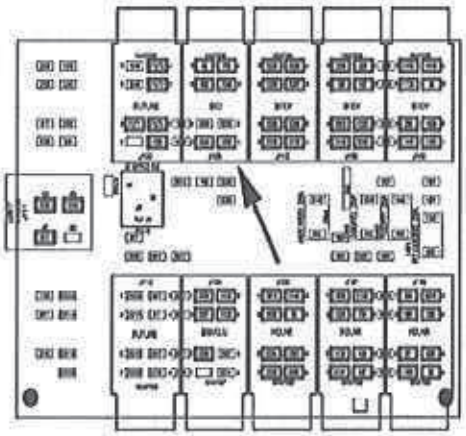
The MBEC is located below the instrument panel to the left of the brake pedal (#4 in the graphic points to the MBEC).



The MBEC has 10 positions for connecting electrical connectors. One of these positions is designated for aftermarket utilization. Install a connector (P/N 20791502) into the open position identified in the following graphic.

Within this connector, there is a fused 30 Amp battery feed, a fused 15 Amp battery feed, a fused 10 Amp Run/Crank feed, a 300 milliamp RAP (Retained Accessory Power) feed and a ground.

Location of Connector for Aftermarket Utilization:



Important: Connector P/N 20791502 comes with a one wire lead installed. This lead will need to be removed before the connector is pinned for use with aftermarket electrical devices.

The pin out of the connector is as follows:

Cavity	Circuit Description	Circuit Number	Fuse Size
1	Ground	1050	NA
2	Battery Feed	4540	15 Amps
3	Not Used	--	--
4	Not Used	--	--
5	Battery Feed	2340	30 Amps
6	Not Used	--	--
7	Run/Crank Feed	739	10 Amps
8	RAP Feed	43	300 milliamps

Subject:	**Upfitter Circuit Provisions**
Models Affected:	Chevrolet Silverado GMC Sierra
Model Years:	2014 and Beyond
Date:	March 20, 2014
Revision Date:	August 18, 2014

ADVISORY:

Condition/Concern:

Upfitters may inquire on the new 2014-2015 LD Full-size trucks and for the 2015 HD series as to where to access commonly used circuit for adding aftermarket equipment.

Recommendation:

Commonly utilized circuits are available for use in the ICEM (formally referred to as the Mid-BEC or MBEC) which is located in the LH foot well, near or below the parking brake mechanism (see figure 1)

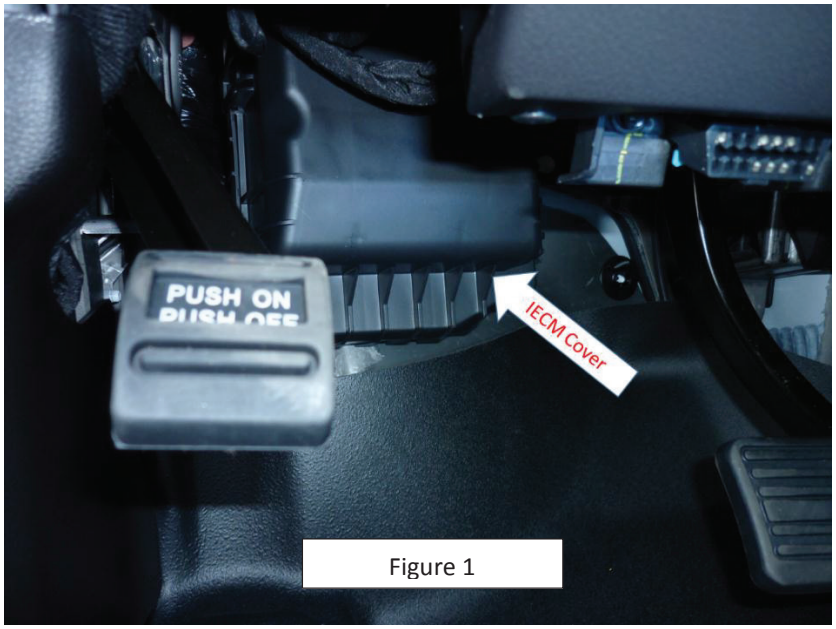
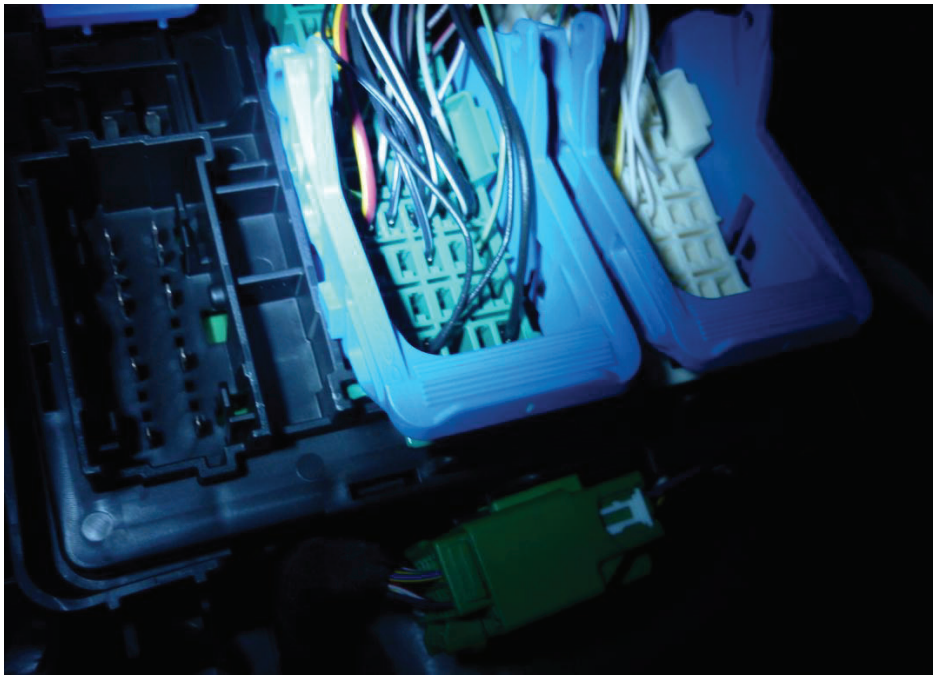
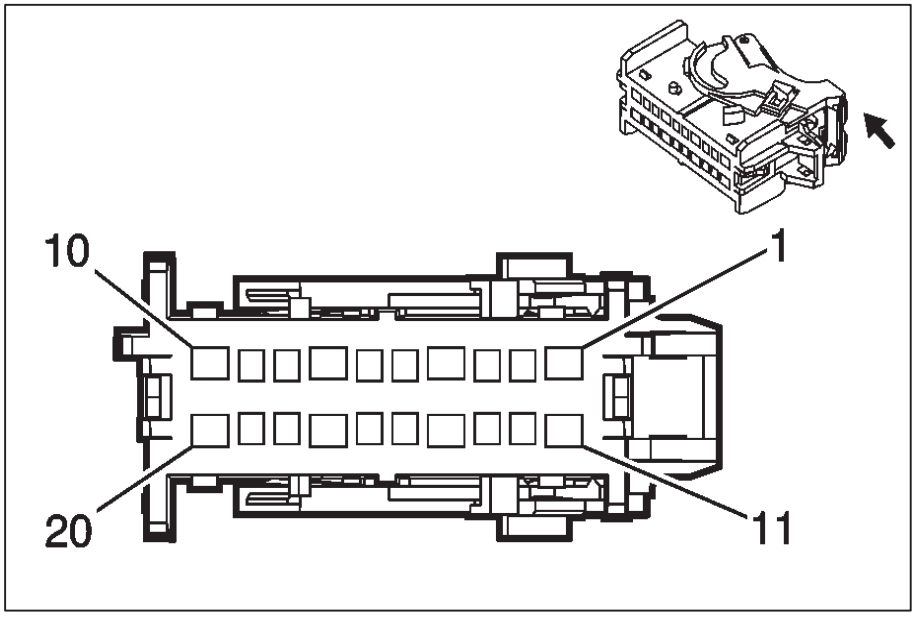


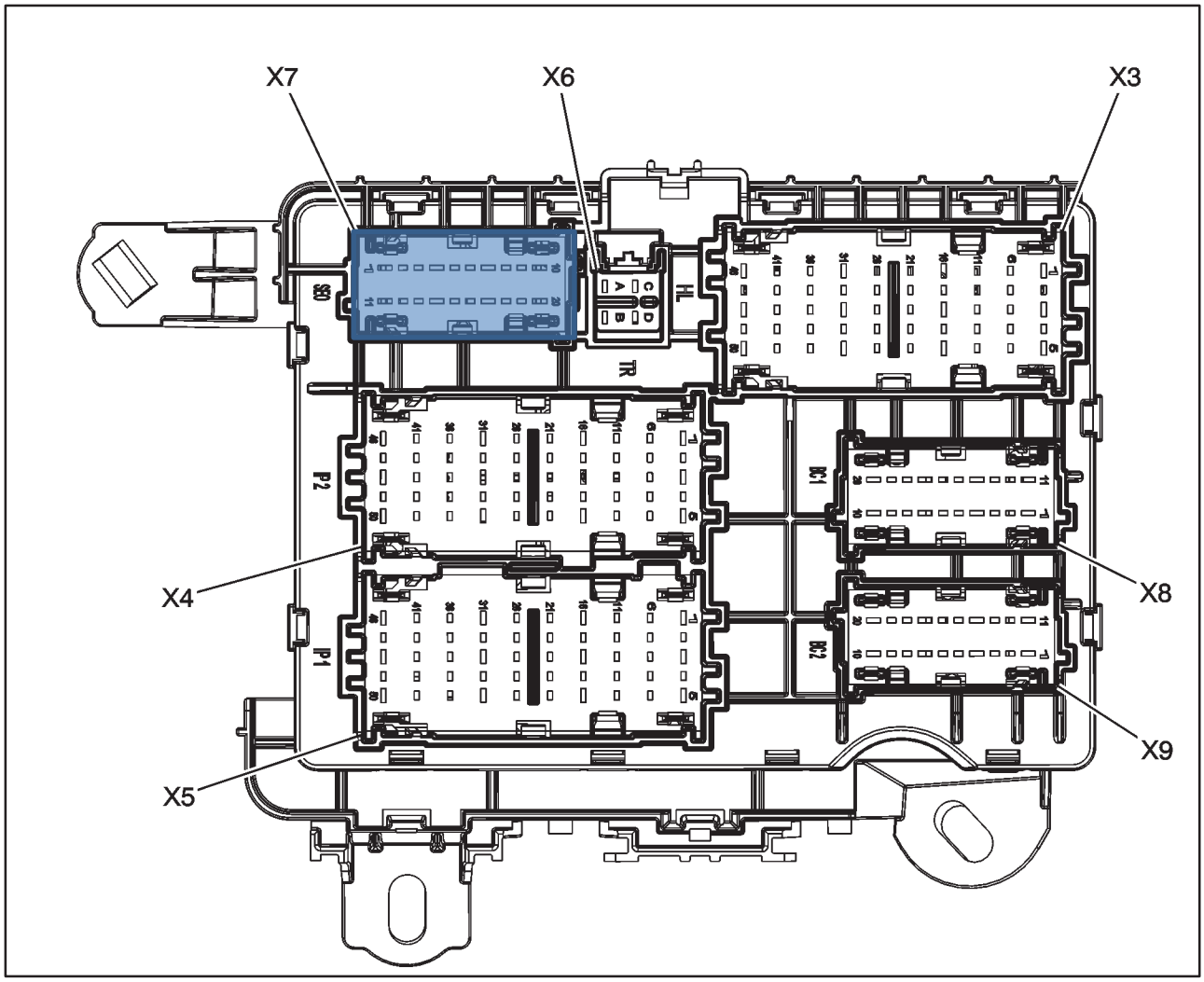
Figure 1





Refer to connector pin–out table for connector and terminal part number information (next page).

X61A Junction Block Top View



Connector Part Information

- Harness Type: Upfitter
- OEM Connector: 13924036
- Service Connector: Kit P/N 19328970 Includes Connector body and Lock Lever
- Description: 20-Way F 1.5, 2.8 Series (BK)

Also now available for order at GM dealers

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13575832	J-35616-35 (VT)	J-38125-11A	7116-4112-02	9	C	D
II	13578892	J-35616-2A (GY)	J-38125-11A	7116-4101-08	9	E	A

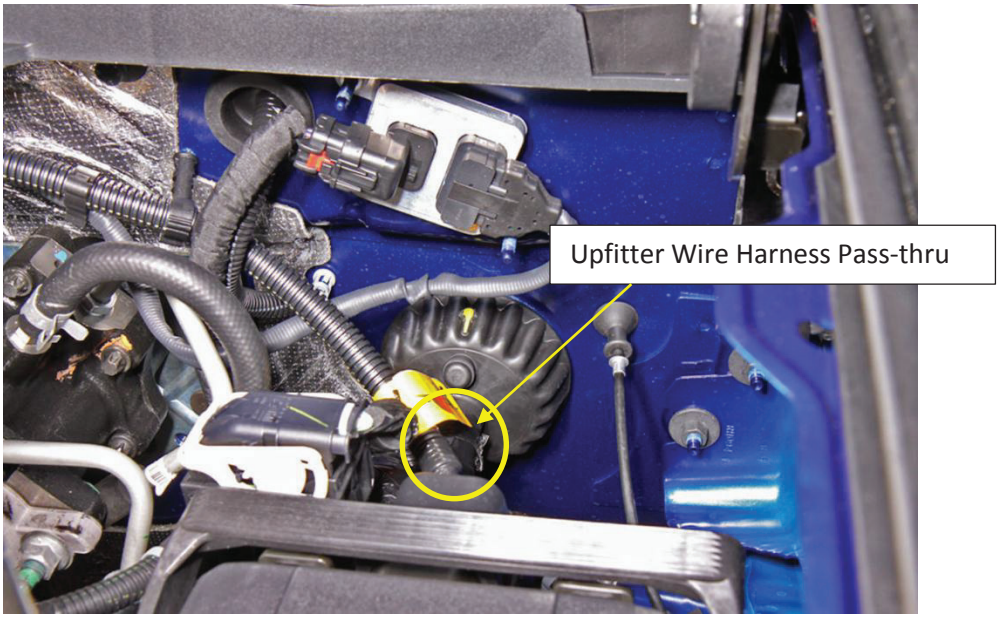
X61A Junction Block - Instrument Panel X7

Pin	Size	Color	Circuit	Function/Fuse Rating	Terminal Type ID	Option
1	0		968	Upfitter Provision (30amp)(Aux. SW 4 output)	I	9L7
2-3	-	-	-	Not Occupied	-	-
4	0		967	Upfitter Provision (30amp)(Aux. SW 3 output)	I	9L7
5-6	-	-	-	Not Occupied	-	-
7	0	RD/YE	2340	Battery Positive Voltage (5 amp)*	I	-
8	0	VT/YE	43	Accessory Voltage (10 amp)*	II	-
9	0	GN	5060	Low Speed GMLAN Serial Data	II	-
10	0	BK	1050	Ground	I	-
11	0	VT/WH	1939	Run/Crank Ignition 1 Voltage (15 amp)	I	-
12-13	-	-	-	Not Occupied	-	-
14	0		966	Upfitter Provision (30amp)(Aux. SW 2 output)	I	9L7
15-16	-	-	-	Not Occupied	-	-
17	0	RD/YE	2340	Battery Positive Voltage (5 amp)*	I	-
18	-	-	-	Not Occupied	-	-
19	0	GN/GY	817	Vehicle Speed Signal (4k PPM)	II	-
20	0		965	Upfitter Provision (30amp)(Aux. SW 1 output)	I	9L7

Note: The yellow shaded terminals are available signals for Upfitter usage.

*NOTE: CIRCUITS SHOULD BE USED TO ACTIVATE A RELAY AND NOT THE ADD ON ACCESSORY DIRECTLY

Wire Harness Pass-thru location



DODGE

2003-Later:

ELECTRICAL CONSIDERATIONS

HEADLAMPS

Each headlamp bulb is independently Pulse Width Modulated (PWM) controlled by an electronic control module. This module also monitors each bulb to detect failures (i.e. bulb burned out) on both the high beam and low beam filaments. When this failure occurs, the "LAMP OUT" telltale indicator in the instrument cluster will illuminate whenever the ignition is in the RUN position. The module also provides the DRL function when required and therefore there is no separate DRL controller.

Therefore, the any aftermarket wiring kits should use the following guidelines:

- Disconnection of the OEM headlamps will be interpreted by the electronic module as a burned out bulb therefore; it is recommended that the aftermarket lamps utilize the OEM headlamp circuits. NOTE – the aftermarket bulbs must draw no more current than the OEM bulbs (9007QL).
- Provide a means of allowing the customer to manually switch between the OEM headlamps and the aftermarket headlamps. Connection of both the OEM and aftermarket lamps at the same time will cause the control module to disable the circuit due to an overload condition and illuminate the "LAMP OUT" indicator in the instrument cluster.
- Also, assure that the OEM headlamps cannot be inadvertently disabled when the aftermarket lamps are disconnected (i.e. when the snowplow is not on the vehicle).
- Do NOT splice the right and left headlamp circuits together. Connection of both lamps to the same circuit will cause the control module to disable the circuit due to an overload condition and illuminate the "LAMP OUT" indicator in the instrument cluster.

TURN LAMPS

Each turn lamp - front driver, front passenger, rear driver, and rear passenger is independently controlled by an electronic control module. This module also monitors each bulb to detect failures (i.e. bulb burned out). When this failure occurs the "LAMP OUT" tell tale indicator in the instrument cluster will illuminate whenever the ignition is in the RUN position.

In order to successfully connect the plows turn signal lamps to the vehicle's wiring the following must be done:

- The front driver circuit is L61, 18 gauge WT/LG
- The front passenger circuit is L60, 18 gauge WT/TN
- Both L60 & L61 need to be spliced into in order to control a set of relays (please see attached drawing on page 5). These relays are necessary for proper function of the turn signals while the plow lamps are attached to the vehicle's electrical system. Failure to do so will cause the front turn signals to be inoperable or intermittent.

NOTE: The electronic module is only capable of detecting bulb failure in the vehicles lamps.

PARK LAMPS

The vehicle park/tail/license/marker/tailgate lamps are partitioned into three subsets – driver side, passenger side, and trailer tow connectors with the total vehicle load balanced between the driver and passenger side. Aftermarket wiring kits must have provisions that:

- Maintain separation between all three subsets. The preferred method for aftermarket park lamps is to use one of these circuits as a sense line to control a relay to activate aftermarket lamps. The relays power feed needs to be a fused battery feed provided by the kit
- If aftermarket park lamps need to be wired directly to the vehicle circuits. The load should be balanced between driver and passenger side, with neither side sourcing more than 2A of additional load current.
  - The driver side circuit is L161, 20 gauge WT/YL wire – see wiring schematics. The easiest place to find and splice into this circuit is in the harness bundle near the connection to the driver headlamp assembly
  - The passenger side circuit is L160, 20 gauge WT/GY wire – see wiring schematics. The easiest place to find and splice into this circuit is in the harness bundle near the connection to the passenger headlamp assembly

IGNITION RUN FEED

If required, the only location to obtain an Ignition run feed is to splice into circuit F306. Circuit F306 18 gauge PK/YL is a dedicated Ignition Run feed to the Cigar Lighter.

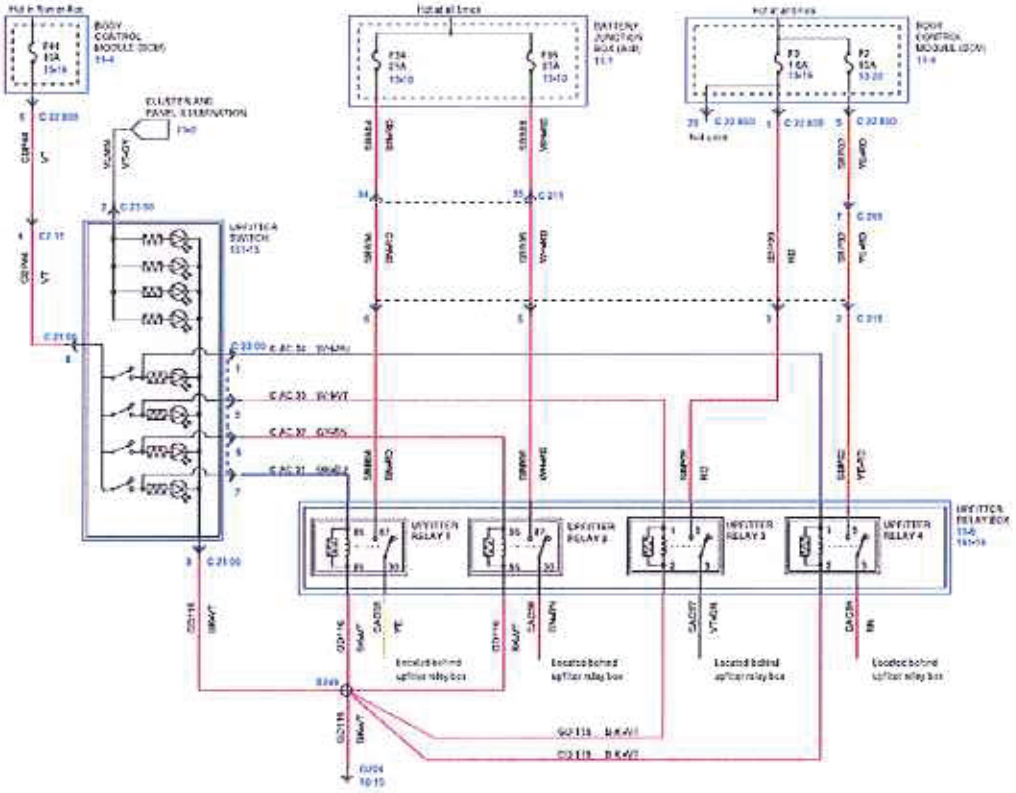
The best location to splice into F306 is right at the connection into the back of the Cigar Lighter. This connection can be accessed by removing the center stack trim piece which the Cigar Lighter is mounted into. There will be two wires going into the connector. Circuit F306 is the 18

Body Builders Layout Book

20
ELECTRICAL

ELECTRICAL WIRING
SUPER DUTY F-SERIES
CUSTOMER ACCESS SCHEMATICS

2011
MODEL YEAR



(Cont'd next page)

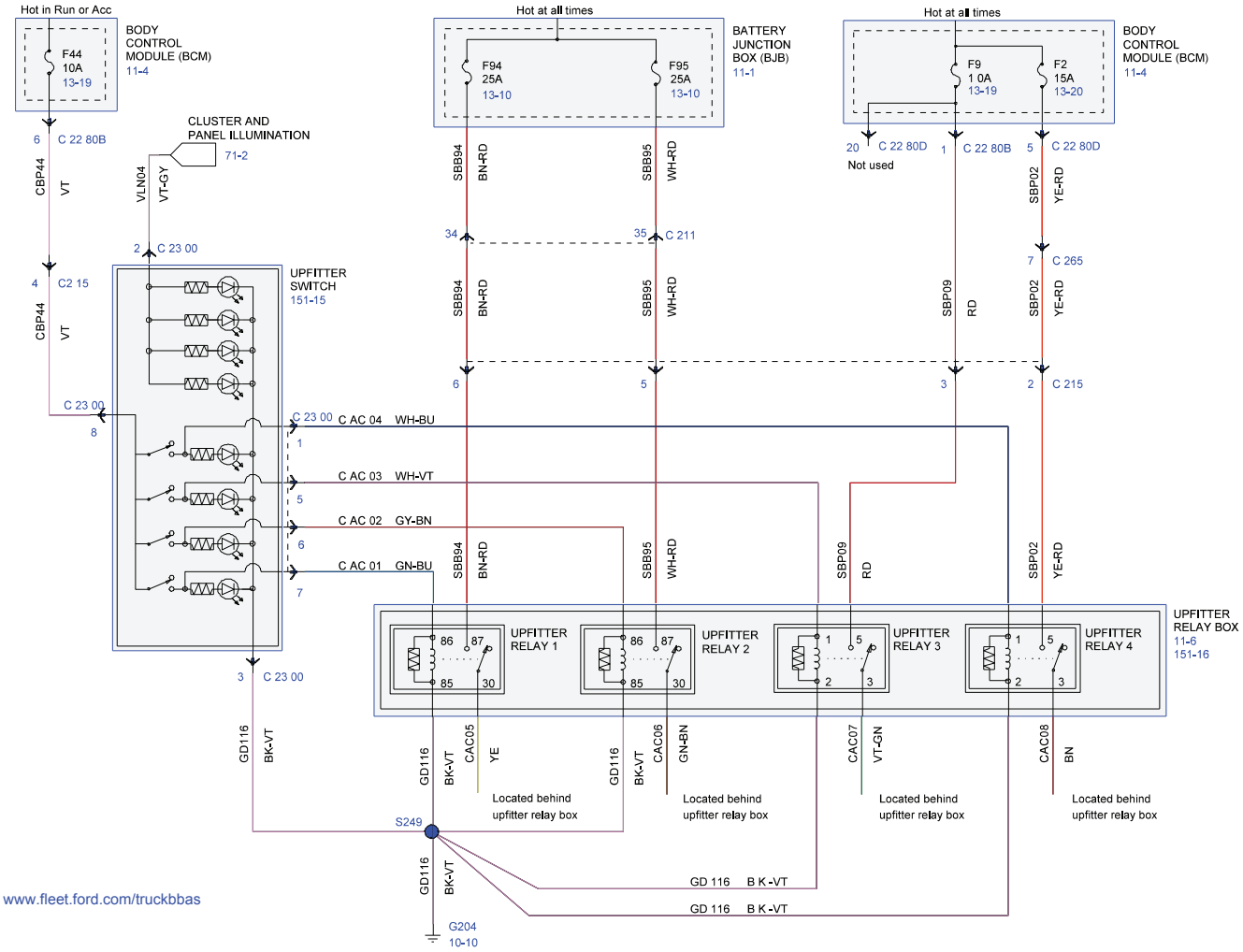
F-Super Duty Customer Access Ignition Switched Power Feed

Model Year	Wire Color	Circuit Rating	Fuse #	Circuit #	Function	Notes
2008	Violet	10A	F44	CBP44	Hot in RUN	Blunt cut wire under left side of instrument panel
2009	Violet	10A	F44	CBP44	Hot in RUN	Blunt cut wire under left side of instrument panel
2010	Violet	10A	F44	CBP44	Hot in RUN	Blunt cut wire under left side of instrument panel
2011	Yellow w/ Orange stripe (early build vehicles)	10A	F10	CDC64	Hot in ACC/RUN	Blunt cut wire under left side of instrument panel
2011	White w/ Blue stripe	10A	F10	CDC64	Hot in ACC/RUN	Blunt cut wire under left side of instrument panel

1999-2007 Ford Super Duty
Dedicated blunt cut wire under instrument panel near steering column, ignition signal is on White/Light Blue Wire. May be labeled **"FOR BODY BUILDER USE".**

2004-Later Ford F150
Fuse box located in the passenger side kick panel.

ELECTRICAL WIRING
SUPER DUTY F-SERIES
CUSTOMER ACCESS SCHEMATICS



Jeep

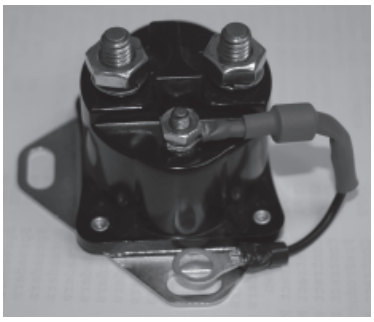
2007 & Later Jeep
Fuse number M6 Power outlet #1 (20 amp)

TOYOTA

2007 & Later Toyota
Accessory Power port (7.5 amp) for Cigar lighter.

Installation Instructions
Part No. 22154 E-58H Controller
Installation & Operation

When installing motor solenoid part number 15370 (per form number 1-841) or If motor solenoid is already installed on the vehicle, the enclosed diode part number 15059, must be connected to the small terminal of the motor solenoid and to the motor solenoid mounting bracket as shown below. **Note: Motor Solenoid must have a good ground in order to operate properly.**



SNOW PLOW CONTROLLER OPERATION

The snow plow should only be in operation when the vehicle ignition switch and the control switch are in the “ON” position. Care should be taken to insure that the control switch is kept dry and free from moisture during normal operation.

When the control switch is turned “On,” lights illuminate the location of the individual touch pads for the functions of the snow plow: (Up), (Angle Left), (Angle Right) and (Down).

Lowering of the snow plow an inch at a time is possible by tapping the down arrow in short intervals. Holding down the down arrow will activate a float light located in the upper left corner of the control switch. This light indicates the snow plow is now in the Lower/Float position. In this position the snow plow will be able to follow the contour of the road and the snow plow can also be angled to the left or right. Touching the up arrow automatically cancels the Lower/Float position.

This switch is self diagnosing. The monitor light is located in the upper left corner below the float light of the control switch. When the monitor light turns on and begins to flash the control switch is sensing a problem with a specific coil/connection on the hydraulic unit. The diagnostic label is on the back side of your control switch.

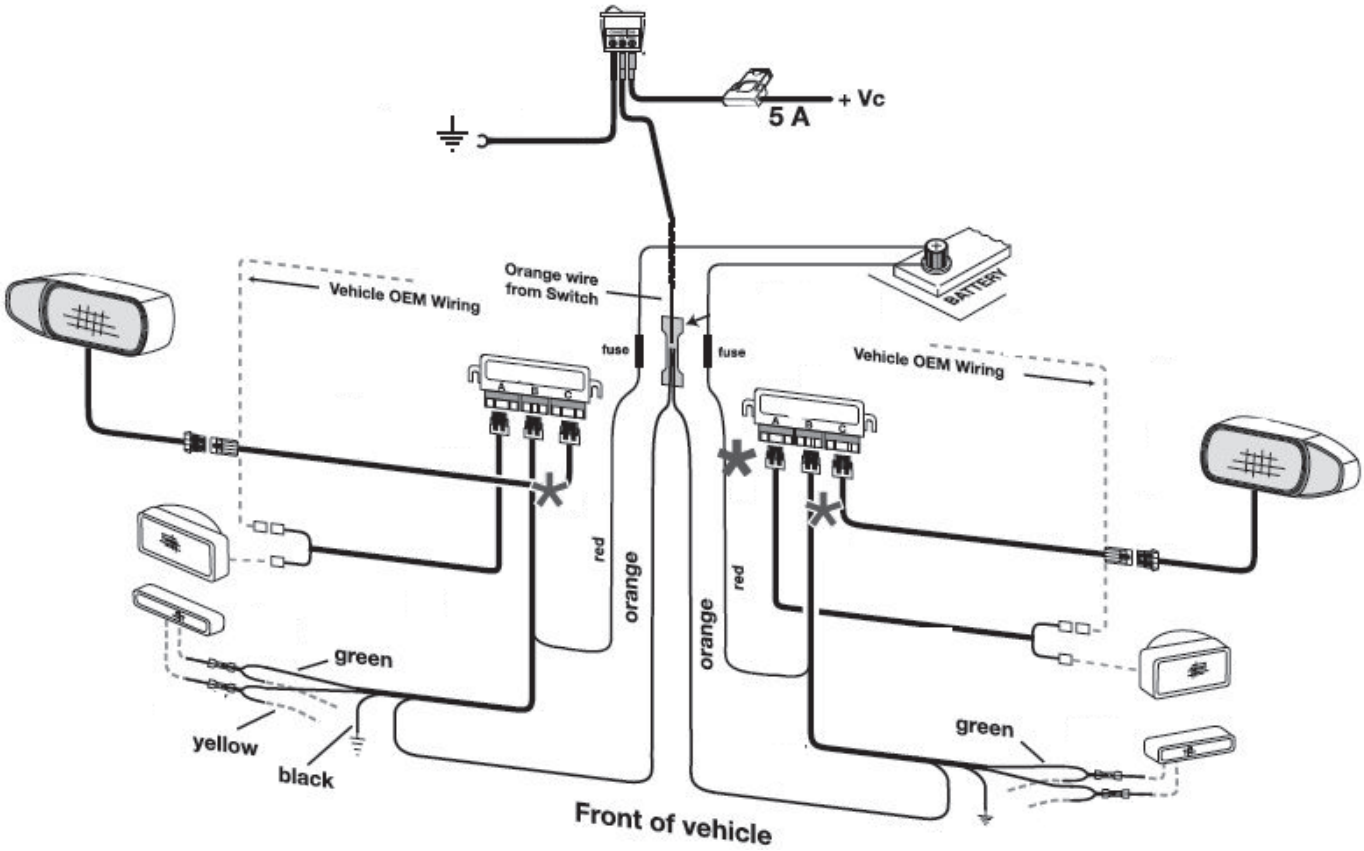
Reset is accomplished by turning off the ignition switch or by turning the power switch off momentarily and then back on. If the monitor light is still illuminated after attempts to reset the switch have failed, contact your nearest authorized Meyer Distributor for repairs..

Installation Instructions
Part No. 07691 Pistol Grip to Touch Pad Adapter Installation & Operation

When replacing a 22690 or 22690X Pistol Grip Controller with a 22154 Touchpad. The adapter pictured below will plug into the vehicle harness and the Touchpad will plug into the opposite end. If the Pistol Grip Controller activated the plow lights the enclosed rocker switch , bracket and wiring will need to be installed. Mount the rocker switch inside the cab in a desirable location. Attach the red wire with 5 amp fuse to a keyed accessory source (only has power with ignition on). Attach the black wire to ground. Locate the orange wires from the plow light modules to their connection at the orange wire on the vehicle side harness. Cut the two orange wires from the vehicle side harness and run into the cab with using the orange wire supplied and connect to the rocker switch. See diagram below. The rocker switch will now activate the plow lights.

To vehicle harness

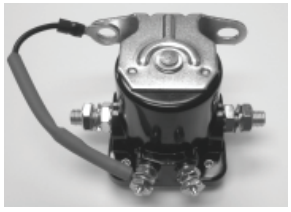
To 22154 Touchpad



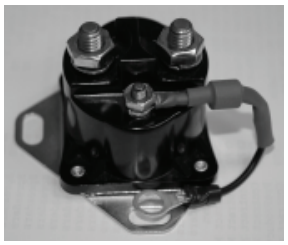
Part No. 22690DC Pistol Grip Controller Installation & Operation

When installing motor solenoid part number 15370 (per form number 1-841) or If motor solenoid is already installed on the vehicle, the enclosed diode part number 15059, must be connected to the small terminal with white wire of the motor solenoid and to the motor solenoid mounting bracket as shown below. **Note: Motor Solenoid must have a good ground in order to operate properly.** The 22717 control adapter shown below is only needed when replacing a 22154 Touchpad. The orange wire of the adapter can be connected to the orange wire on the back of the plow light switch. The plow light switch could then be removed along with the black and red wires which were connected to the plow light switch.

4 Post Motor Solenoid



3 Post Motor Solenoid



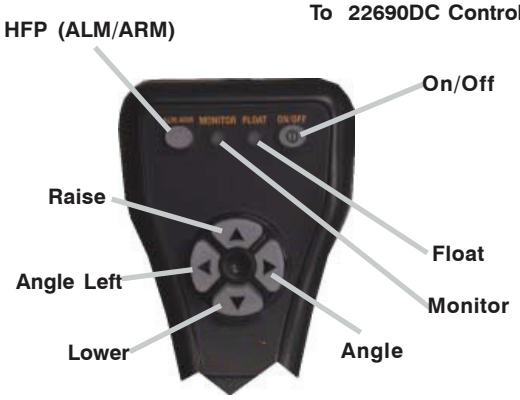
22717 Adapter

To 22690DC Controller

To vehicle harness

Blue wire to reverse signal.

To orange wire from plow light switch.



Imprinted on backside of Controller

Systems Monitor LED Read-Out Light Flashes Check Coil (wire Color)
Continuous Light----Motor Solenoid 1 Light Flash----Red 2 Light Flashes----Black 3 Light Flashes----Green 4 Light Flashes----Yellow 5 Light Flashes----Lt. Blue 6 Light Flashes----Purple

SNOW PLOW CONTROLLER OPERATION

The snow plow should only be in operation when the vehicle ignition switch and the control switch are in the "ON" position. Care should be taken to insure that the control switch is kept dry and free from moisture during normal operation.

"By tapping the ON/OFF pad once, it will turn ON the snow plow headlights only. The plow will be OFF. The ON/OFF pad will illuminate AMBER. By tapping the ON/OFF pad again it will turn OFF the headlamps and the pad illumination. When the ON/OFF pad is continuously depressed for more than 1 second, it will turn ON the plow control switch and the snow plow headlights. The pads will illuminate GREEN showing the location of the individual touch pads for the function s of the snow plow Raise, Angle Left, Angle Right and Lower. By continuously depressing the ON/OFF pad a second time for more than 1 second, it will turn OFF the plow control switch, snow plow headlights and the Green pad illumination."

Lowering of the snow plow an inch at a time is possible by tapping the Lower arrow in short intervals. Holding down the Lower arrow will activate a float light located in the upper right corner of the control switch. This light indicates the snow plow is now in the Lower/Float position. In this position the snow plow will be able to follow the contour of the road and the snow plow can also be angled to the left or right. Touching the Raise arrow automatically cancels the Lower/Float position.

While angling left or right or raising the snow plow if the button is pressed for more than four seconds the operation will be cancelled. This feature eliminates unnecessary amp draw from the vehicle charging system.

"By double clicking the Raise, Angle Left, Angle Right or Lower arrows quickly, the control switch will automatically move the plow to the maximum desired position then stop."

Hands-Free Plowing or ALM/ARM

Meyer re-branded the ALM/ARM feature on its 22690DC controllers to be Hands-Free Plowing (HFP) ™. When activated, the Hands-Free Plowing (HFP) mode uses the vehicle's shift lever to control the up/down movement of the moldboard. Pressing the HFP button on the controller will toggle you through: On/Off, Back-drag Mode (default mode when active), and Forward Plowing Mode.

Back-dragging Mode or ALM

When the controller is on and you are in the conventional plow control mode, pressing the HFP button will activate Hands-Free Plowing (HFP). The default mode for HFP is the Back-drag Mode. In the Back-drag Mode, the moldboard will automatically lower when you put the vehicle in reverse. Put the vehicle in drive to automatically raise the moldboard.

Forward Plowing Mode or ARM

To activate the Forward Plowing Mode when HFP is already on, press the HFP button once. The moldboard will automatically lower when you put the truck into drive. When you reach the end of a run, the moldboard will automatically raise when you put the vehicle in reverse.
To turn the HFP feature off, press the HFP button until you see the HFP light go off.

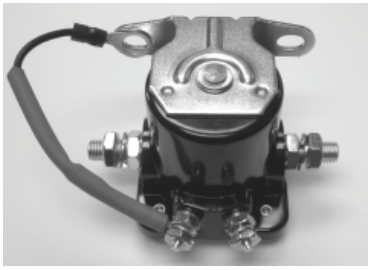
This switch is self diagnosing. The monitor light is located in the upper left corner next to the float light of the control switch. When the monitor light turns on and begins to flash the control switch is sensing a problem with a specific coil/connection on the hydraulic unit. The label below is on the back side of your control switch.

Reset is accomplished by turning off the ignition switch or by turning the power switch off momentarily and then back on. If the monitor light is still illuminated after attempts to reset the switch have failed, contact your nearest authorized Meyer Distributor for repairs.

Part No. 22695DC Pistol Grip DLX Controller Installation & Operation

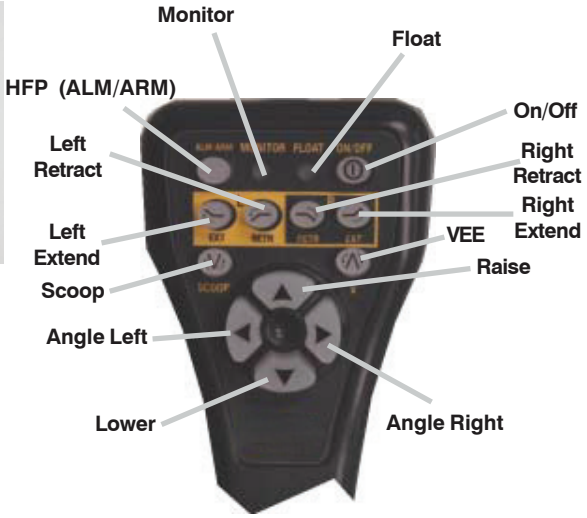
When installing motor solenoid part number 15370 (per form number 1-883) or If motor solenoid is already installed on the vehicle, the enclosed diode part number 15059, must be connected to the small terminal white wire of the motor solenoid and to the motor solenoid mounting bracket as shown below. **Note: Motor Solenoid must have a good ground in order to operate properly.**

4 Post Motor Solenoid

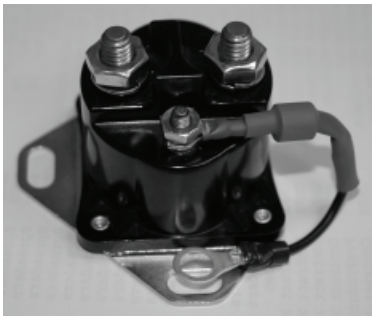


Imprinted on backside of Controller

Systems Monitor LED Read-Out Light Flashes Check Coil (wire Color)
Continuous Light----Motor Solenoid 1 Light Flash----Red 2 Light Flashes----Black 3 Light Flashes----Green 4 Light Flashes----Yellow 5 Light Flashes----Lt. Blue 6 Light Flashes----Purple



3 Post Motor Solenoid



SNOW PLOW CONTROLLER OPERATION

The snow plow should only be in operation when the vehicle ignition switch and the control switch are in the “ON” position. Care should be taken to insure that the control switch is kept dry and free from moisture during normal operation.

By tapping the ON/OFF pad once, it will turn ON the snow plow headlights only. The plow will be OFF. The ON/OFF pad will illuminate AMBER. By tappingthe ON/OFF pad again, it will turn OFF the headlights and the pad illumination. When the ON/OFF pad is continuously depressed for more than 1 second, itwill turn ON the plow control switch and the snow plow headlights. The pads will illuminate GREEN showing the location of the individual touch pads for thefunctions of the snow plow Up, Angle Left, Angle Right, Left Extend (V only), Left Retract (V only), Right Extend (V only), Right Retract (V only), Scoop (V only),Vee (V only) and Down. By continuously depressing the ON/OFF pad a second time for more than 1 second, it will turn OFF the plow control switch, snow plowheadlights and the GREEN pad illumination. This switch has an auto detect feature which allows it to operate either the E-58H, E-70, E-72 or V-70 unit.

Lowering of the snow plow an inch at a time is possible by tapping the down arrow in short intervals. Holding down the down arrow will activate a float light located in the upper right corner of the control switch. This light indicates the snow plow is now in the Lower/Float position. In this position the snow plow will be able to follow the contour of the road and the snow plow can also be angled to the left or right. Touching the up arrow automatically cancels the Lower/Float position.

While angling left or right or raising the snow plow if the button is pressed for more than six seconds the operation will be cancelled. This feature eliminates unnecessary amp draw from the vehicle charging system.

By double tapping the Up, Angle Left, Angle Right, Left Extend (V only), Left Retract (V only), Right Extend (V only), Right Retract (V only), Scoop (V only),Vee (V only) and Down arrows quickly, the control switch will automatically move the plow to the maximum desired position then stop.

Hands-Free Plowing or ALM/ARM
Meyer re-branded the ALM/ARM feature on its 22695DC controllers to be Hands-Free Plowing (HFP) ™. When activated, the Hands-Free Plowing (HFP) mode uses the vehicle’s shift lever to control the up/down movement of the moldboard. Pressing the HFP button on the controller will toggle you through: On/Off, Back-drag Mode (default mode when active), and Forward Plowing Mode.
Back-dragging Mode or ALM
When the controller is on and you are in the conventional plow control mode, pressing the HFP button will activate Hands-Free Plowing (HFP). The default mode for HFP is the Back-drag Mode. In the Back-drag Mode, the moldboard will automatically lower when you put the vehicle in reverse. Put the vehicle in drive to automatically raise the moldboard.
Forward Plowing Mode or ARM
To activate the Forward Plowing Mode when HFP is already on, press the HFP button once. The moldboard will automatically lower when you put the truck into drive. When you reach the end of a run, the moldboard will automatically raise when you put the vehicle in reverse.
To turn the HFP feature off, press the HFP button until you see the HFP light go off.

This switch is self diagnosing. The monitor light is located in the upper left corner next to the float light of the control switch. When the monitor light turns on and begins to flash the control switch is sensing a problem with a specific coil/connection on the hydraulic unit. The label below is on the back side of your control switch.

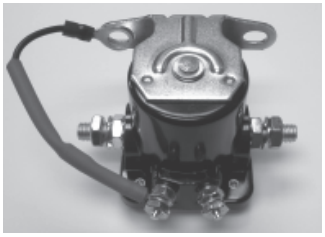
Reset is accomplished by turning off the ignition switch or by turning the power switch off momentarily and then back on. If the monitor light is still illuminated after attempts to reset the switch have failed, contact your nearest authorized Meyer Distributor for repairs.

When the controller is turned on it will activate the snow plow lights. When the controller is turned off or removed from the harness this will activate the vehicle headlights.

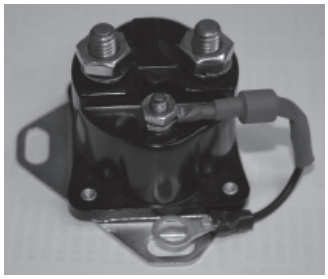
Part No. 22790X Joy Stick DLX Controller Installation & Operation

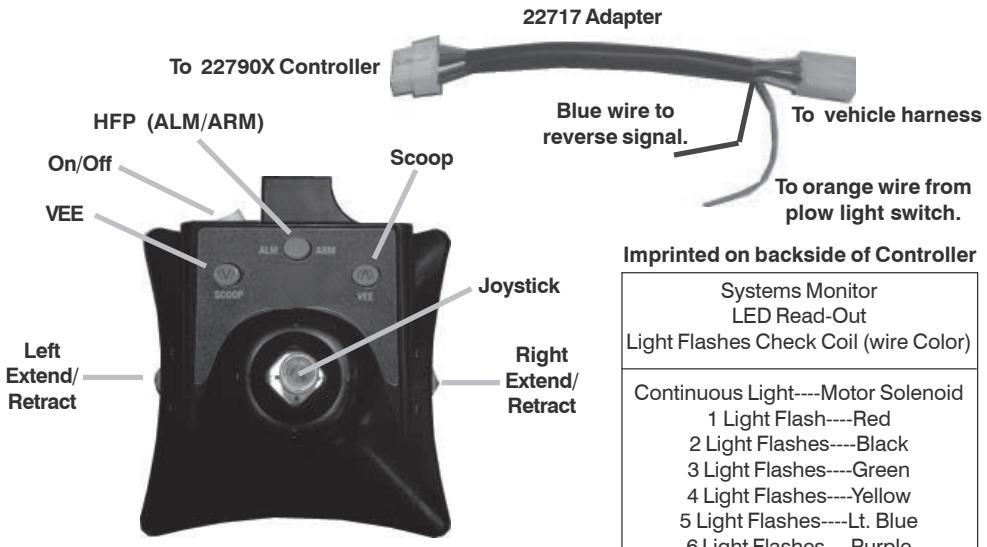
When installing motor solenoid part number 15370 (per form number 1-883) or If motor solenoid is already installed on the vehicle, the enclosed diode part number 15059, must be connected to the small terminal white wire of the motor solenoid and to the motor solenoid mounting bracket as shown below. **Note: Motor Solenoid must have a good ground in order to operate properly.** The 22717 control adapter shown below is only needed when replacing a 22154 Touchpad. The orange wire of the adapter can be connected to the orange wire on the back of the plow light switch. The plow light switch could then be removed along with the black and red wires which were connected to the plow light switch. When the controller is turned on it will activate the snow plow lights. When the controller is turned off or removed from the harness this will activate the vehicle headlights.

4 Post Motor Solenoid



3 Post Motor Solenoid





Imprinted on backside of Controller

Systems Monitor LED Read-Out Light Flashes Check Coil (wire Color)
Continuous Light----Motor Solenoid
1 Light Flash----Red
2 Light Flashes----Black
3 Light Flashes----Green
4 Light Flashes----Yellow
5 Light Flashes----Lt. Blue
6 Light Flashes----Purple

SNOW PLOW CONTROLLER OPERATION

The snow plow should only be in operation when the vehicle ignition switch and the control switch are in the "ON" position. Care should be taken to insure that the control switch is kept dry and free from moisture during normal operation.

When the control switch is turned "On," green lights illuminate the location of the individual buttons for the functions of the snow plow: Scoop (V only), Vee (V only). The Joystick will illuminate white and will turn green during the following functions: Up, Angle Left, Angle Right and Down. Sliders on either side of the Joystick will operate: Left Extend (V only), Left Retract (V only), Right Extend (V only), Right Retract (V only). This switch has an auto detect feature which allows it to operate either the E-58H or V-68 unit.

Lowering of the snow plow an inch at a time is possible by tapping the down on the Joystick in short intervals. Holding down the Joystick will activate float and the Joystick will illuminate blue.. This blue light indicates the snow plow is now in the Lower/Float position. In this position the snow plow will be able to follow the contour of the road and the snow plow can also be angled to the left or right. Pushing the Joystick up automatically cancels the Lower/ Float position.

While angling left or right or raising the snow plow if the Joystick is pressed for more than six seconds the operation will be cancelled. This feature eliminates unnecessary amp draw from the vehicle charging system.

Hands-Free Plowing or ALM/ARM

Meyer re-branded the ALM/ARM feature on its 22690X controllers to be Hands-Free Plowing (HFP) ™. When activated, the Hands-Free Plowing (HFP) mode uses the vehicle's shift lever to control the up/down movement of the moldboard. Pressing the HFP button on the controller will toggle you through: On/Off, Back-drag Mode (default mode when active), and Forward Plowing Mode.

Back-dragging Mode or ALM

When the controller is on and you are in the conventional plow control mode, pressing the HFP button will activate Hands-Free Plowing (HFP). The default mode for HFP is the Back-drag Mode. In the Back-drag Mode, the moldboard will automatically lower when you put the vehicle in reverse. Put the vehicle in drive to automatically raise the moldboard.

Forward Plowing Mode or ARM

To activate the Forward Plowing Mode when HFP is already on, press the HFP button once. The moldboard will automatically lower when you put the truck into drive. When you reach the end of a run, the moldboard will automatically raise when you put the vehicle in reverse.
To turn the HFP feature off, press the HFP button until you see the HFP light go off.

This switch is self diagnosing. The Joystick will illuminate red and begins to flash when the control switch is sensing a problem with a specific coil/connection on the hydraulic unit. The diagnostic label is on the back side of your control switch.

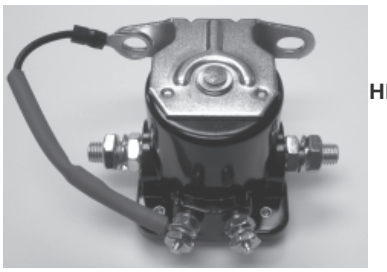
Reset is accomplished by turning off the ignition switch or by turning the power switch off momentarily and then back on. If the Joystick is still illuminated red after attempts to reset the switch have failed, contact your nearest authorized Meyer Distributor for repairs.

When the controller is turned on it will activate the snow plow lights. When the controller is turned off or removed from the harness this will activate the vehicle headlights.

Part No. 22869X Pistol Grip DLX Controller Installation & Operation

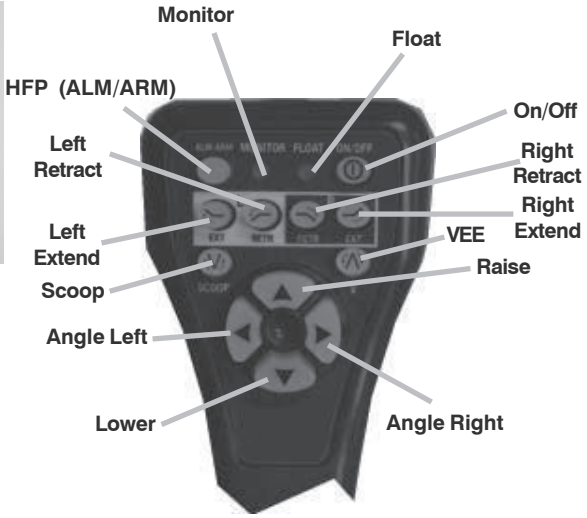
When installing motor solenoid part number 15370 (per form number 1-883) or If motor solenoid is already installed on the vehicle, the enclosed diode part number 15059, must be connected to the small terminal white wire of the motor solenoid and to the motor solenoid mounting bracket as shown below. **Note: Motor Solenoid must have a good ground in order to operate properly.**

4 Post Motor Solenoid

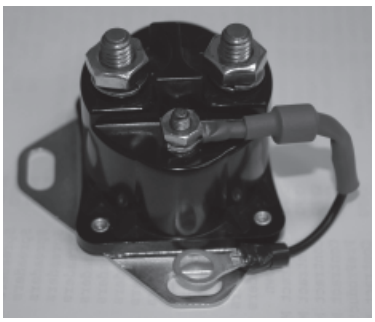


Imprinted on backside of Controller

Systems Monitor LED Read-Out Light Flashes Check Coil (wire Color)
Continuous Light----Motor Solenoid 1 Light Flash----Red 2 Light Flashes----Black 3 Light Flashes----Green 4 Light Flashes----Yellow 5 Light Flashes----Lt. Blue 6 Light Flashes----Purple



3 Post Motor Solenoid



SNOW PLOW CONTROLLER OPERATION

The snow plow should only be in operation when the vehicle ignition switch and the control switch are in the “ON” position. Care should be taken to insure that the control switch is kept dry and free from moisture during normal operation.

When the control switch is turned “On,” lights illuminate the location of the individual touch pads for the functions of the snow plow: Up, Angle Left, Angle Right, Left Extend (V only), Left Retract (V only, Right Extend (V only), Right Retract (V only), Scoop (V only), Vee (V only) and Down. This switch has an auto detect feature which allows it to operate either the E-58H, E-70, E-72 or V-71

Lowering of the snow plow an inch at a time is possible by tapping the down arrow in short intervals. Holding down the down arrow will activate a float light located in the upper right corner of the control switch. This light indicates the snow plow is now in the Lower/Float position. In this position the snow plow will be able to follow the contour of the road and the snow plow can also be angled to the left or right. Touching the up arrow automatically cancels the Lower/Float position.

While angling left or right or raising the snow plow if the button is pressed for more than six seconds the operation will be cancelled. This feature eliminates unnecessary amp draw from the vehicle charging system.

Hands-Free Plowing or ALM/ARM

Meyer re-branded the ALM/ARM feature on its 22869X controllers to be Hands-Free Plowing (HFP) ™. When activated, the Hands-Free Plowing (HFP) mode uses the vehicle’s shift lever to control the up/down movement of the moldboard. Pressing the HFP button on the controller will toggle you through: On/Off, Back-drag Mode (default mode when active), and Forward Plowing Mode.

Back-dragging Mode or ALM

When the controller is on and you are in the conventional plow control mode, pressing the HFP button will activate Hands-Free Plowing (HFP). The default mode for HFP is the Back-drag Mode. In the Back-drag Mode, the moldboard will automatically lower when you put the vehicle in reverse. Put the vehicle in drive to automatically raise the moldboard.

Forward Plowing Mode or ARM

To activate the Forward Plowing Mode when HFP is already on, press the HFP button once. The moldboard will automatically lower when you put the truck into drive. When you reach the end of a run, the moldboard will automatically raise when you put the vehicle in reverse.

To turn the HFP feature off, press the HFP button until you see the HFP light go off.

This switch is self diagnosing. The monitor light is located in the upper left corner next to the float light of the control switch. When the monitor light turns on and begins to flash the control switch is sensing a problem with a specific coil/connection on the hydraulic unit. The label below is on the back side of your control switch.

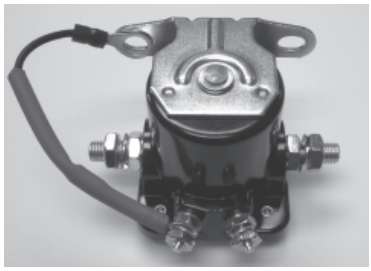
Reset is accomplished by turning off the ignition switch or by turning the power switch off momentarily and then back on. If the monitor light is still illuminated after attempts to reset the switch have failed, contact your nearest authorized Meyer Distributor for repairs.

When the controller is turned on it will activate the snow plow lights. When the controller is turned off or removed from the harness this will activate the vehicle headlights.

Part No. 22693 Pistol Grip Controller Installation & Operation

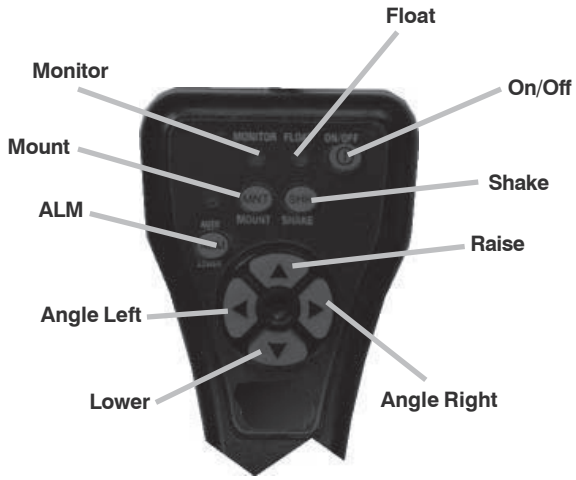
When installing motor solenoid part number 15370 (per form number 1-878 or 1-881) or If motor solenoid is already installed on the vehicle, the enclosed diode part number 15059, must be connected to the small terminal with white wire of the motor solenoid and to the motor solenoid mounting bracket as shown below. **Note: Motor Solenoid must have a good ground in order to operate properly.**

4 Post Motor Solenoid

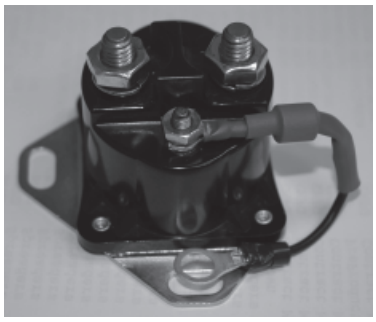


Imprinted on backside of Controller

Systems Monitor LED Read-Out Light Flashes Check Coil (wire Color)
Continuous Light----Motor Solenoid 1 Light Flash----Red 2 Light Flashes----Black 3 Light Flashes----Green 4 Light Flashes----Yellow 5 Light Flashes----Lt. Blue 6 Light Flashes----Purple



3 Post Motor Solenoid



SNOW PLOW CONTROLLER OPERATION

The snow plow should only be in operation when the vehicle ignition switch and the control switch are in the “ON” position. Care should be taken to insure that the control switch is kept dry and free from moisture during normal operation.

When the control switch is turned “On,”all the buttons will illuminate. Individual touch pads operate the functions of the snow plow: (Up), (Angle Left), (Angle Right), and (Down).

Lowering of the snow plow an inch at a time is possible by tapping the down arrow in short intervals. Holding down the down arrow will activate a float light located in the upper right corner of the control switch. This light indicates the snow plow is now in the Lower/Float position. In this position the snow plow will be able to follow the contour of the road and the snow plow can also be angled to the left or right. Touching the up arrow automatically cancels the Lower/Float position.

While angling left or right or raising the snow plow if the button is pressed for more than four seconds the operation will be cancelled. This feature eliminates unnecessary amp draw from the vehicle charging system.

The auto lower button when pressed will illuminate the light above it and allows the plow to lower automatically when the vehicle is shifted into reverse and raise automatically when shifted out of reverse. To turn off the auto lower mode simply press the auto lower button again.

The Shake button when pressed will shake the plow left and right for three seconds. This function is used to shake off any snow which may be stuck to the plow. This function is only available within the last ten seconds of an angle, raise or lower operation. If you want to cancel shake once it is pressed simply press the shake button again.

The mount button when pressed will allow the mount/dismount switch on the hydraulic unit to mount or dismount the plow at the same time none of the other function will operate (angle left, angle right, raise or lower will not work) and al the buttons on the switch will begin to flash. When the mount button is pressed again the mount/dismount switch will not work. All plow functions (left, right, raise and lower) will now be available. Once the mount button is pressed it will only allow the plow to be removed or attached to the vehicle. If the mount/dismount switch is pressed for more than fifteen seconds the operation will be cancelled. This feature eliminates unnecessary amp draw from the vehicle charging system.

This switch is self diagnosing. The monitor light is located in the upper left corner next to the float light of the control switch. When the monitor light turns yellow and begins to flash the control switch is sensing a problem with a specific coil/connection on the hydraulic unit. The label below is on the back side of your control switch.

When the controller is turned on it will activate the snow plow lights. When the controller is turned off or removed from the harness this will activate the vehicle headlights.

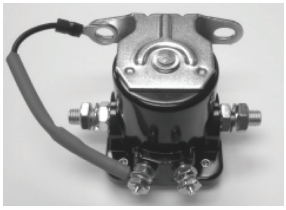
Meyer Products LLC assumes no responsibility for installations not made in accordance with these instructions.

Part No. 23010 Wireless Snow Plow Controller Kit
Installation & Operation

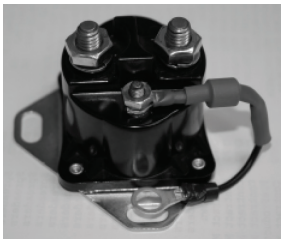
INSTALLATION INSTRUCTIONS

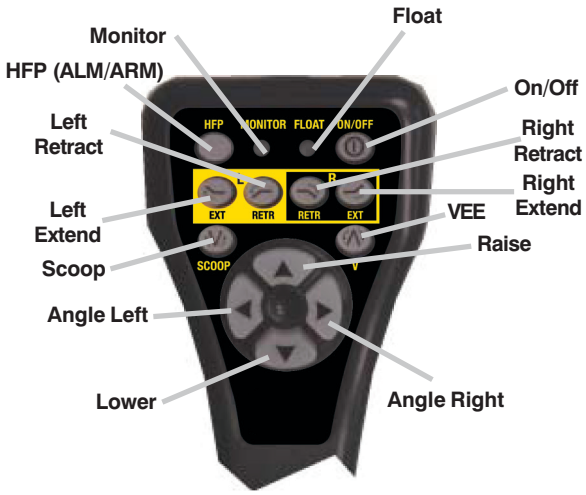
When installing motor solenoid part number 15370 (per form number 1-883) or If motor solenoid is already installed on the vehide, the enclosed diode part number 15059, must be connected to the small terminal white wire of the motor solenoid and to the motor solenoid mounting bracket as shown below. **Note: Motor Solenoid must have a good ground in order to operate properly.**

4 Post Motor Solenoid



3 Post Motor Solenoid





Imprinted on backside of Controller

Systems Monitor LED Read-Out Light Flashes Check Coil (wire Color)
Continuous Light----Motor Solenoid 1 Light Flash----Red 2 Light Flashes----Black 3 Light Flashes----Green 4 Light Flashes----Yellow 5 Light Flashes----Lt. Blue 6 Light Flashes----Purple

SNOW PLOW CONTROLLER OPERATION

The snow plow should only be in operation when the vehicle ignition switch and the control switch are in the "ON" position. Care should be taken to ensure that the control switch is kept dry and free from moisture during normal operation.

When the control switch is turned "On", lights illuminate the location of the individual touch pads for the functions of the snow plow. Up, Angle Left, Angle Right, Left Extend (V only), Left Retract (V only), Right Extend (V only), Right Retract (V only), Scoop (V only), Vee (V only) and Down. This switch has an auto detect feature which allows it to operate either the E-58H, E-70, E-72 or V-70 unit.

Lowering of the snow plow an inch at a time is possible by tapping the down arrow in short intervals. Holding down the down arrow will activate a float light located in the upper right corner of the control switch. This light indicates the snow plow is now in the Lower/Float position. In this position the snow plow will be able to follow the contour of the road and the snow plow can also be angled to the left or right. Touching the up arrow automatically cancels the Lower/Float position.

While angling left or right or raising the snow plow if the button is pressed for more than six seconds the operation will be cancelled. This feature eliminates unnecessary amp draw from the vehicle charging system.

Hands-Free Plowing or ALM/ARM

Meyer re-branded the ALM/ARM feature on its 22690X controllers to be Hands-Free Plowing (HFP) ™. When activated, the Hands-Free Plowing (HFP) mode uses the vehicle's shift lever to control the up/down movement of the moldboard. Pressing the HFP button on the controller will toggle you through: On/Off, Back-drag Mode (default mode when active), and Forward Plowing Mode.

Back-dragging Mode or ALM

When the controller is on and you are in the conventional plow control mode, pressing the HFP button will activate Hands-Free Plowing (HFP). The default mode for HFP is the Back-drag Mode. In the Back-drag Mode, the moldboard will automatically lower when you put the vehicle in reverse. Put the vehicle in drive to automatically raise the moldboard.

Forward Plowing Mode or ARM

To activate the Forward Plowing Mode when HFP is already on, press the HFP button once. The moldboard will automatically lower when you put the truck into drive. When you reach the end of a run, the moldboard will automatically raise when you put the vehicle in reverse.

To turn the HFP feature off, press the HFP button until you see the HFP light go off.

This switch is self diagnosing. The monitor light is located in the upper left corner next to the float light of the control switch. When the monitor light turns on and begins to flash the control switch is sensing a problem with a specific coil/connection on the hydraulic unit. The label below is on the back side of your control switch.

Reset is accomplished by turning off the ignition switch or by turning the power switch off momentarily and then back on. If the monitor light is still illuminated after attempts to reset the switch have failed, contact your nearest authorized Meyer Distributor for repairs.

When the controller is turned on it will activate the snow plow lights. When the controller is turned off or removed from the harness this will activate the vehicle headlights.

Part No. 23010 Wireless Snow Plow Controller Kit

To satisfy FCC RF Exposure requirements for mobile and base station transmission devices, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operation at closer than this distance is not recommended.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Contains Transmitter Module FCC ID: OA3MRF24J40MA

Sync Instructions

1) **Make sure both devices are powered OFF.**
2) **Connect the receiver, should automatically power ON.**
3) **On the controller, hold down the MODE button and the POWER button simultaneously until LEDs flash.**
4) **Press the SYNC button on the receiver module.**
5) **Wait until the LEDs are finished flashing, the blue LED will stop flashing and then shut down everything.**
6) **Press the POWER button to turn device ON, the blue LED on the receiver will turn ON if paired correctly.**

Operating Specifications

Operating Voltage Range:	**9 to 16Vdc**
Output Current:	**4A MAX for Headlamp Changeover**
	2A MAX per Solenoid Output
Temperature Range:	**-30°C to +45°C**

Part No. 23022 Controller Installation & Operation

Plow Light Switch

SNOW PLOW CONTROLLER OPERATION

The snow plow should only be in operation when the vehicle ignition switch and the control switch are in the “ON” position. Care should be taken to insure that the control switch is kept dry and free from moisture during normal operation. Control swith must be turned off when truck is turned off.

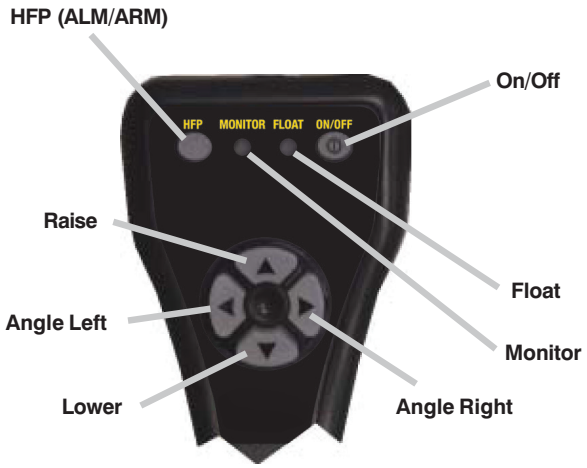
When the control switch is turned “On,” a light illuminates the “On” button. The individual touch pads functions the snow plow: (Up), (Angle Left), (Angle Right) and (Down).

Lowering of the snow plow an inch at a time is possible by tapping the down arrow in short intervals. Holding down the down arrow will activate a float light located in the upper right corner of the control switch. This light indicates the snow plow is now in the Lower/Float position. In this position the snow plow will be able to follow the contour of the road and the snow plow can also be angled to the left or right. Touching the up arrow automatically cancels the Lower/Float position.

The rocker switch at the bottom placed in position “I” will illuminate the low beam snow plow light. When placed in position “II” will illuminate the high beam snow plow lights. The vehicle light switch should be placed in “park light” position when the plow lights are turned on. Be sure to turn off the plow lights by positioning the plow light switch to the center or “O” position when the vehicle is turned off.

Meyer Products LLC assumes no responsibility for installations not made in accordance with these instructions.

Part No. 23047 Pistol Grip Straight Blade New Standard Operating System Controller Installation & Operation



Imprinted on backside of Controller
Systems Monitor LED Read-Out Light Flashes Check Coil (wire Color)
Continuous Light----Motor Solenoid 1 Light Flash----Red 2 Light Flashes----Black 3 Light Flashes----Green 4 Light Flashes----Yellow 5 Light Flashes----Lt. Blue 6 Light Flashes----Purple

SNOW PLOW CONTROLLER OPERATION

The snow plow should only be in operation when the vehicle ignition switch and the control switch are in the "ON" position. Care should be taken to ensure that the control switch is kept dry and free from moisture during normal operation. When operating the snow plow lights the vehicle headlight switch must be turned to the park position so the vehicle headlights and snow plow lights are not on at the same time.

By tapping the ON/OFF pad once, it will turn ON the snow plow lights low beam only. The plow will be OFF. The ON/OFF pad will illuminate AMBER. By tapping the ON/OFF pad again, it will turn OFF the plow lights and the pad illumination. When the ON/OFF pad is continuously depressed for more than 1 second, it will turn ON the plow control switch and the snow plow lights low beam. Tapping the ON/OFF button again will turn on the high beams of the snow plow lights and the monitor light will turn green to show the plow lights are in the high beam position. The ON/OFF button , when tapped will toggle between low and high beam for the plow lights. The Controller pads will illuminate GREEN showing the location of the individual touch pads for the functions of the snow plow Up, Angle Left, Angle Right and Down. By continuously depressing the ON/OFF pad a second time for more than 1 second, it will turn OFF the plow control switch, snow plow lights and the GREEN pad illumination.

Lowering of the snow plow an inch at a time is possible by tapping the down arrow in short intervals. Holding down the down arrow will activate a float light located in the upper right corner of the control switch. This light indicates the snow plow is now in the Lower/Float position. In this position the snow plow will be able to follow the contour of the road and the snow plow can also be angled to the left or right. Touching the up arrow automatically cancels the Lower/Float position.

While angling left or right or raising the snow plow if the button is pressed for more than six seconds the operation will be cancelled. This feature eliminates unnecessary amp draw from the vehicle charging system.

By double tapping the Up, Angle Left, Angle Right and Down arrows quickly, the control switch will automatically move the plow to the maximum desired position then stop.

Hands-Free Plowing or ALM/ARM
Meyer re-branded the ALM/ARM feature on its 23047 controllers to be Hands-Free Plowing (HFP) ™. When activated, the Hands-Free Plowing (HFP) mode uses the vehicle's shift lever to control the up/down movement of the moldboard. Pressing the HFP button on the controller will toggle you through: On/Off, Back-drag Mode (default mode when active), and Forward Plowing Mode.

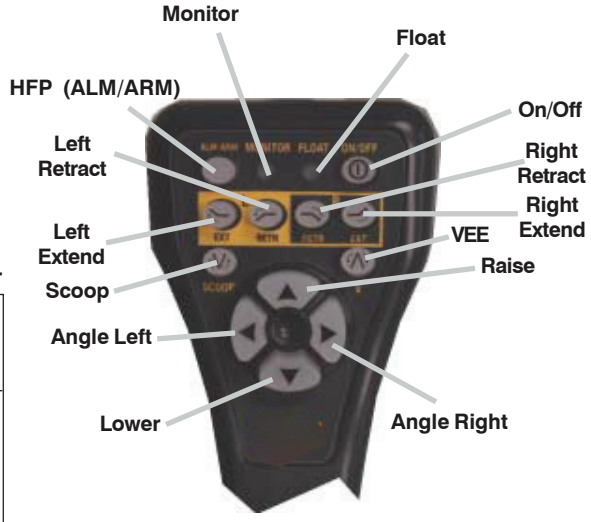
Back-dragging Mode or ALM
When the controller is on and you are in the conventional plow control mode, pressing the HFP button will activate Hands-Free Plowing (HFP). The default mode for HFP is the Back-drag Mode. In the Back-drag Mode, the moldboard will automatically lower when you put the vehicle in reverse. Put the vehicle in drive to automatically raise the moldboard.

Forward Plowing Mode or ARM
To activate the Forward Plowing Mode when HFP is already on, press the HFP button once. The moldboard will automatically lower when you put the truck into drive. When you reach the end of a run, the moldboard will automatically raise when you put the vehicle in reverse.
To turn the HFP feature off, press the HFP button until you see the HFP light go off.

This switch is self diagnosing. The monitor light is located in the upper left corner next to the float light of the control switch. When the monitor light turns on and begins to flash the control switch is sensing a problem with a specific coil/connection on the hydraulic unit. The label below is on the back side of your control switch.

Reset is accomplished by turning off the ignition switch or by turning the power switch off momentarily and then back on. If the monitor light is still illuminated after attempts to reset the switch have failed, contact your nearest authorized Meyer Distributor for repairs.

Part No. 23037 Pistol Grip Deluxe Operating System Controller Installation & Operation



Imprinted on backside of Controller

Systems Monitor LED Read-Out Light Flashes Check Coil (wire Color)
Continuous Light----Motor Solenoid 1 Light Flash----Red 2 Light Flashes----Black 3 Light Flashes----Green 4 Light Flashes----Yellow 5 Light Flashes----Lt. Blue 6 Light Flashes----Purple

SNOW PLOW CONTROLLER OPERATION

The snow plow should only be in operation when the vehicle ignition switch and the control switch are in the "ON" position. Care should be taken to insure that the control switch is kept dry and free from moisture during normal operation. When operating the snow plow lights the vehicle headlight switch must be turned to the park position so the vehicle headlights and snow plow lights are not on at the same time.

By tapping the ON/OFF pad once, it will turn ON the snow plow lights low beam only. The plow will be OFF. The ON/OFF pad will illuminate AMBER. By tapping the ON/OFF pad again, it will turn OFF the plow lights and the pad illumination. When the ON/OFF pad is continuously depressed for more than 1 second, it will turn ON the plow control switch and the snow plow lights low beam. Tapping the ON/OFF button again will turn on the high beams of the snow plow lights and the monitor light will turn green to show the plow lights are in the high beam position. The ON/OFF button , when tapped will toggle between low and high beam for the plow lights. The Controller pads will illuminate GREEN showing the location of the individual touch pads for the functions of the snow plow Up, Angle Left, Angle Right, Left Extend (V only), Left Retract (V only), Right Extend (V only), Right Retract (V only), Scoop (V only), Vee (V only) and Down. By continuously depressing the ON/OFF pad a second time for more than 1 second, it will turn OFF the plow control switch, snow plow lights and the GREEN pad illumination. This switch has an auto detect feature which allows it to operate either the E-73 or V-73 unit.

Lowering of the snow plow an inch at a time is possible by tapping the down arrow in short intervals. Holding down the down arrow will activate a float light located in the upper right corner of the control switch. This light indicates the snow plow is now in the Lower/Float position. In this position the snow plow will be able to follow the contour of the road and the snow plow can also be angled to the left or right. Touching the up arrow automatically cancels the Lower/Float position.

While angling left or right or raising the snow plow if the button is pressed for more than six seconds the operation will be cancelled. This feature eliminates unnecessary amp draw from the vehicle charging system.

By double tapping the Up, Angle Left, Angle Right, Left Extend (V only), Left Retract (V only), Right Extend (V only), Right Retract (V only), Scoop (V only),Vee (V only) and Down arrows quickly, the control switch will automatically move the plow to the maximum desired position then stop.

Hands-Free Plowing or ALM/ARM

Meyer re-branded the ALM/ARM feature on its 23037 controllers to be Hands-Free Plowing (HFP) ™. When activated, the Hands-Free Plowing (HFP) mode uses the vehicle's shift lever to control the up/down movement of the moldboard. Pressing the HFP button on the controller will toggle you through: On/Off, Back-drag Mode (default mode when active), and Forward Plowing Mode.

Back-dragging Mode or ALM

When the controller is on and you are in the conventional plow control mode, pressing the HFP button will activate Hands-Free Plowing (HFP). The default mode for HFP is the Back-drag Mode. In the Back-drag Mode, the moldboard will automatically lower when you put the vehicle in reverse. Put the vehicle in drive to automatically raise the moldboard.

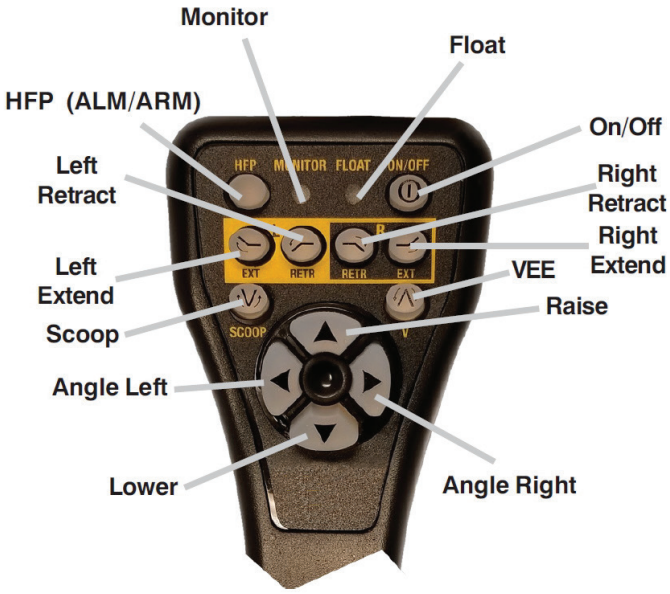
Forward Plowing Mode or ARM

To activate the Forward Plowing Mode when HFP is already on, press the HFP button once. The moldboard will automatically lower when you put the truck into drive. When you reach the end of a run, the moldboard will automatically raise when you put the vehicle in reverse.
To turn the HFP feature off, press the HFP button until you see the HFP light go off.

This switch is self diagnosing. The monitor light is located in the upper left corner next to the float light of the control switch. When the monitor light turns on and begins to flash the control switch is sensing a problem with a specific coil/connection on the hydraulic unit. The label below is on the back side of your control switch.

Reset is accomplished by turning off the ignition switch or by turning the power switch off momentarily and then back on. If the monitor light is still illuminated after attempts to reset the switch have failed, contact your nearest authorized Meyer Distributor for repairs.

Part No. 23074 Pistol Grip Deluxe V-70 Horizontal Operating System Controller Installation & Operation



SNOW PLOW CONTROLLER OPERATION

The snow plow should only be in operation when the vehicle ignition switch and the control switch are in the “ON” position. Care should be taken to ensure that the control switch is kept dry and free from moisture during normal operation. When operating the snow plow lights the vehicle headlight switch must be turned to the park position so the vehicle headlights and snow plow lights are not on at the same time.

By tapping the ON/OFF pad once, it will turn ON the snow plow lights low beam only. The plow will be OFF. The ON/OFF pad will illuminate AMBER. By tapping the ON/OFF pad again, it will switch to high beam. The plow will remain OFF. The monitor LED will illuminate BLUE. When the ON/OFF pad is continuously depressed for more than 1 second, it will turn ON the plow control switch and the snow plow lights low beam. Tapping the ON/OFF button again will turn on the high beams of the snow plow lights and the monitor LED will turn BLUE to show the plow lights are in the high beam position. The ON/OFF button, when tapped will toggle between low and high beam for the plow lights. The controller pads will illuminate GREEN showing the location of the individual touch pads for the functions of the snow plow Up, Angle Left, Angle Right, Left Extend (V only), Left Retract (V only), Right Extend (V only), Right Retract (V only), Scoop (V only), Vee (V only) and Down. By continuously depressing the ON/OFF pad a second time for more than 1 second, it will turn OFF the plow control switch and th e GREEN pad illumination. Snow plow lights will remain ON until ignition is turned OFF. To change this “HEADLIGHT STAYS ON” mode to “HEADLIGHT TURNS OFF WITH PLOW” mode, please follow the instructions below:

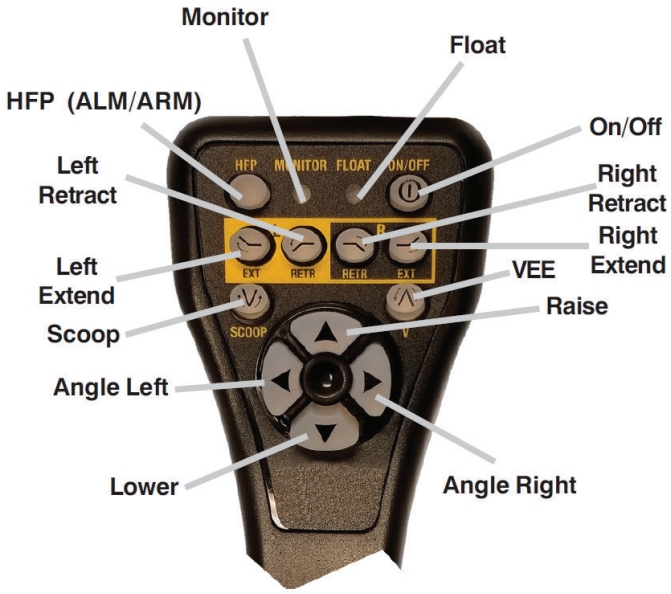
Headlight Turns OFF with Plow Mode: To engage this mode, after turning ON the ignition switch, hold down the HFP button and depress ON/OFF button continuously for 1 second. The float LED will blink twice and then turn ON the plow control switch and the snow plow lights low beam. Release the HFP button to operate plow controller. By continuously depressing the ON/OFF pad a second time for more than 1 second, it will turn OFF the snow plow lights, control switch and the GREEN pad illumination.

Headlight Stays ON Mode: To engage this mode, after turning ON the ignition switch, hold down the HFP button and depress ON/OFF button continuously for 1 second. The float LED will blink four times and then turn ON the plow control switch and the snow plow lights low beam. Release the HFP button to operate plow controller. By continuously depressing the ON/OFF pad a second time for more than 1 second, it will turn OFF the control switch and the GREEN pad illumination. Snow plow lights will remain ON until ignition is turned OFF.

Lowering of the snow plow an inch at a time is possible by tapping the down arrow in short intervals. Holding down the down arrow will activate a float light located in the upper right corner of the control switch. This light indicates the snow plow is now in the Lower/Float position. In this position the snow plow will be able to follow the contour of the road and the snow plow can also be angled to the left or right. Touching the up arrow automatically cancels the Lower/Float position.

While angling left or right or raising the snow plow if the button is pressed for more than six seconds the operation will be cancelled. This feature eliminates unnecessary amp draw from the vehicle charging system.

By double tapping the Up, Angle Left, Angle Right and Down arrows quickly, the control switch will automatically move the plow to the maximum desired position then stop.



SNOW PLOW CONTROLLER OPERATION

Hands-Free Plowing or ALM/ARM:

Meyer re-branded the ALM/ARM feature on its 23074 controllers to be Hands-Free Plowing (HFP)™. When activated, the Hands-Free Plowing (HFP) mode uses the vehicle's shift lever to control the up/down movement of the moldboard. Pressing the HFP button on the controller will toggle you through: On/Off, Back-Drag Mode (default mode when active), and Forward Plowing Mode.

Back-Dragging Mode or ALM:
When the controller is on and you are in the conventional plow control mode, pressing the HFP button will activate Hands-Free Plowing (HFP). The default mode for HFP is the Back-Drag Mode. In the Back-Drag Mode, the moldboard will automatically lower when you put the vehicle in reverse. Put the vehicle in drive to automatically raise the moldboard.

Forward Plowing Mode or ARM:
To activate the Forward Plowing Mode when HFP is already on, press the HFP button once. The moldboard will automatically lower when you put the truck into drive. When you reach the end of a run, the moldboard will automatically raise when you put the vehicle in reverse.
To turn the HFP feature off, press the HFP button until you see the HFP light go off.

This switch is self diagnosing. The monitor light is located in the upper left corner next to the float light of the control switch. When the monitor light turns on and begins to flash, the control switch is sensing a problem with a specific coil/connection on the hydraulic unit. The table shown below is located on the back side of your control switch.

Reset is accomplished by turning off the ignition switch or by turning the power switch off momentarily and then back on. If the monitor light is still illuminated after attempts to reset the switch have failed, contact your nearest authorized Meyer Distributor for repairs.

Imprinted on backside of Controller

Systems Monitor LED Read-Out Light Flashes Check Coil (wire Color)
Continuous Light----Motor Solenoid 1 Light Flash----Red 2 Light Flashes----Black 3 Light Flashes----Green 4 Light Flashes----Yellow 5 Light Flashes----Lt. Blue 6 Light Flashes----Purple

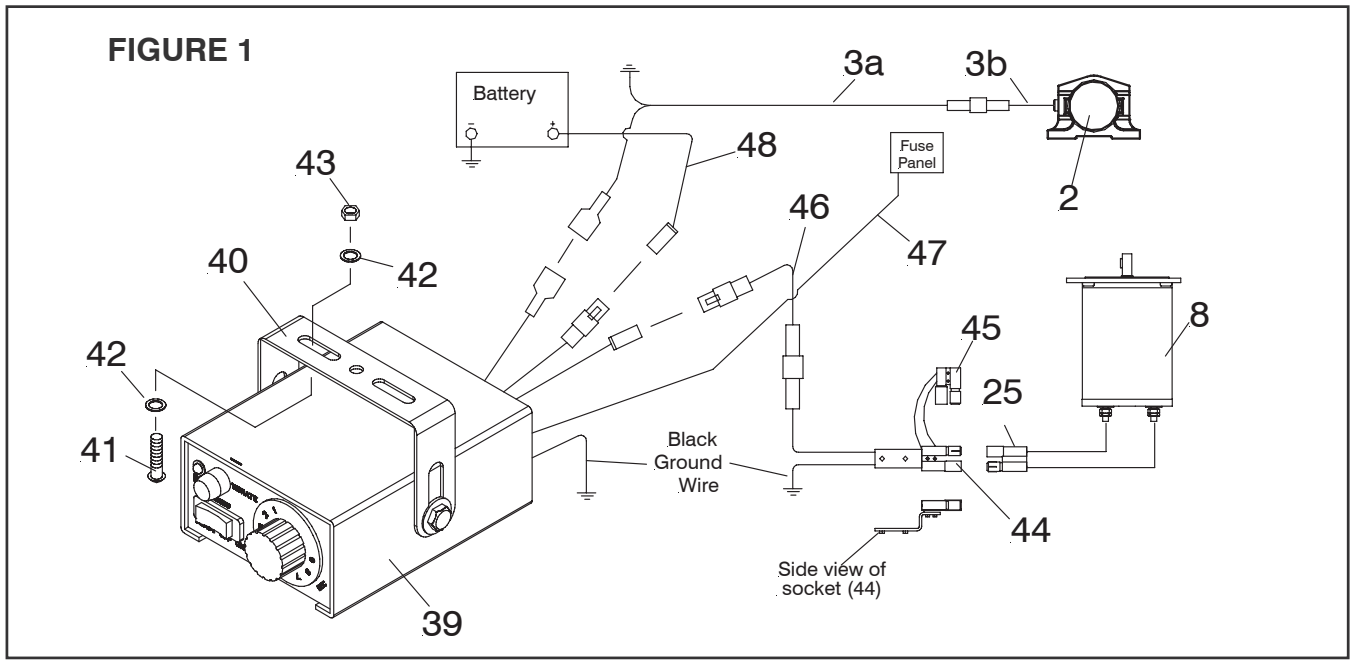
ELECTRICAL INSTALLATION
SPEED CONTROLLER 36244 with VIBRATOR (OPTIONAL)

PARTS LIST

Item	Part No.	Qty.	Description
	38009	1	• **Parts included in Misc.Carton**
	36244	1	• **Speed Control Assembly**
39		1	•• Speed Control
40		1	•• Mounting Bracket
41		2	•• Machine Screw, Rd Hd 8-32 x 1”
42		4	•• Flatwasher #8
43		2	•• Hex Nut 8-32
44	36240	1	•• Socket Assy W/Mounting Plate
45	36248	1	••• Dummy Plug
46	36242	1	•• Wire, Red, 222"
47	36229	1	•• Wire, Blue 36"
48	36247	1	•• Wire, Red, 96"
	38049	1	•• Hardware Bag
49	20835	2	••• Screw Rd. Hd. 8-32 x 1”
50	20843	2	••• Locknut 8-32
51	22399	1	••• Wire Linch Pin 1/4 x 1-3/4”

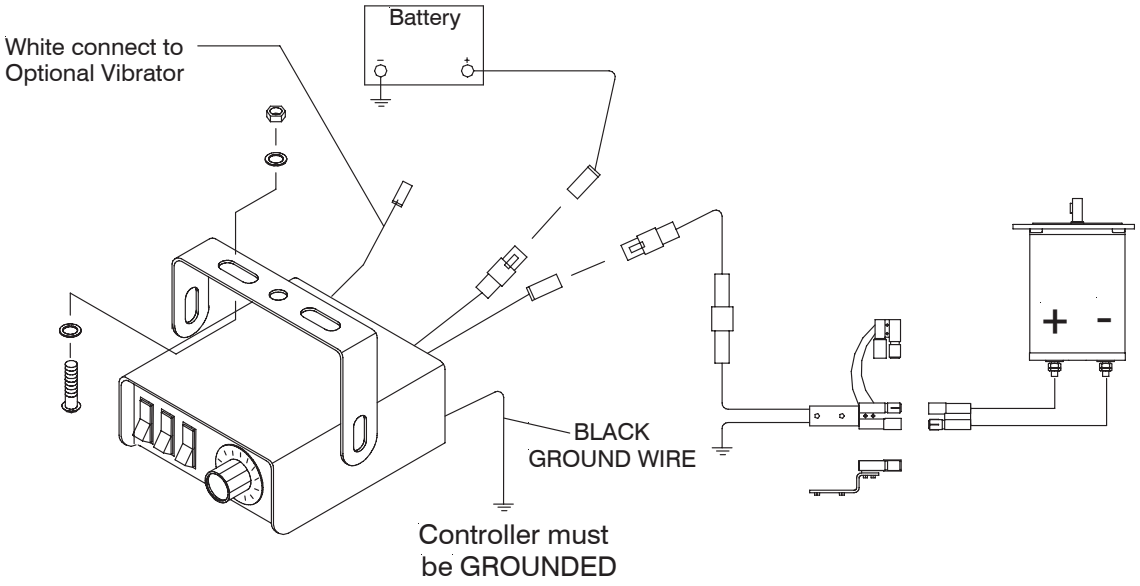
Parts indented are included in the carton, bag or assembly under which they are indented.

FIGURE 1



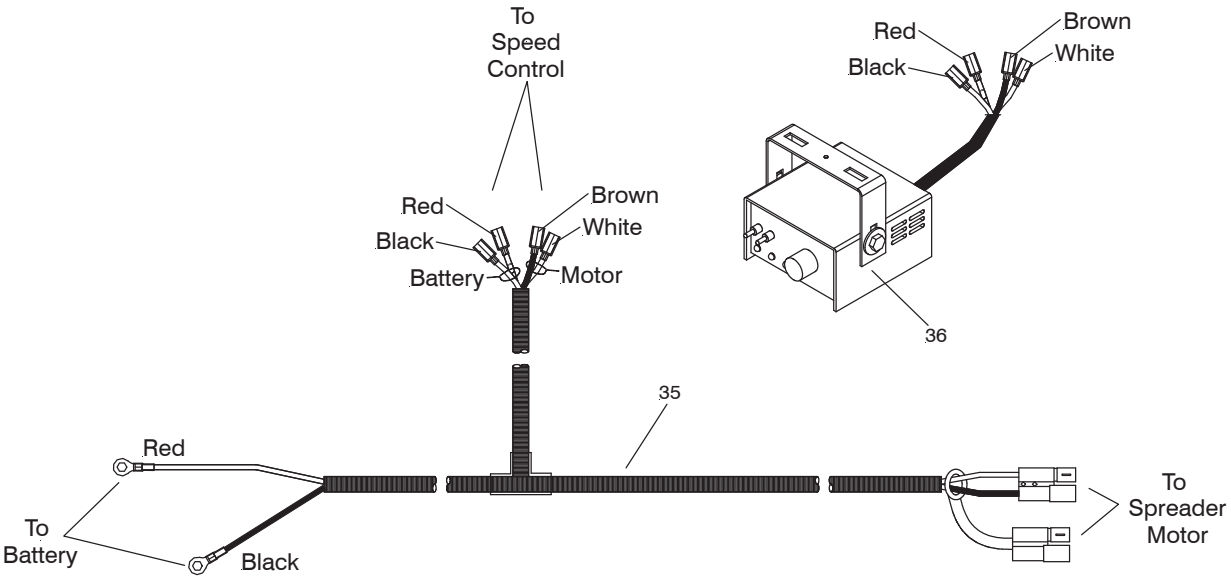
PARTS & INSTALLATION INSTRUCTIONS
36244 Spreader Speed Control

Choose a location for the speed control that is convenient for the driver, noting whether mounting bracket will be attached to the top or bottom of speed control. Attach mounting bracket to vehicle. Make certain speed control is grounded by attaching ground wire to a good vehicle ground. **The blue wire (if equipped) with original spreader installation will not be used.** The white wire will connect to the optional Vibrator wire (if equipped) and the red wired will connect to the positive post of the battery and to positive post of the spreader motor. **See diagram below**



PARTS & INSTALLATION INSTRUCTIONS
34403 Spreader Speed Control

Choose a location for the speed control that is convenient for the driver, noting whether mounting bracket will be attached to the top or bottom of speed control. Attach mounting bracket to vehicle. **See diagram below**



PARTS & INSTALLATION INSTRUCTIONS
34417 Speed Controller

1. Choose a location for the Speed Control that is convenient for the driver. Make certain speed control is grounded by attaching ground wire to a good vehicle ground.

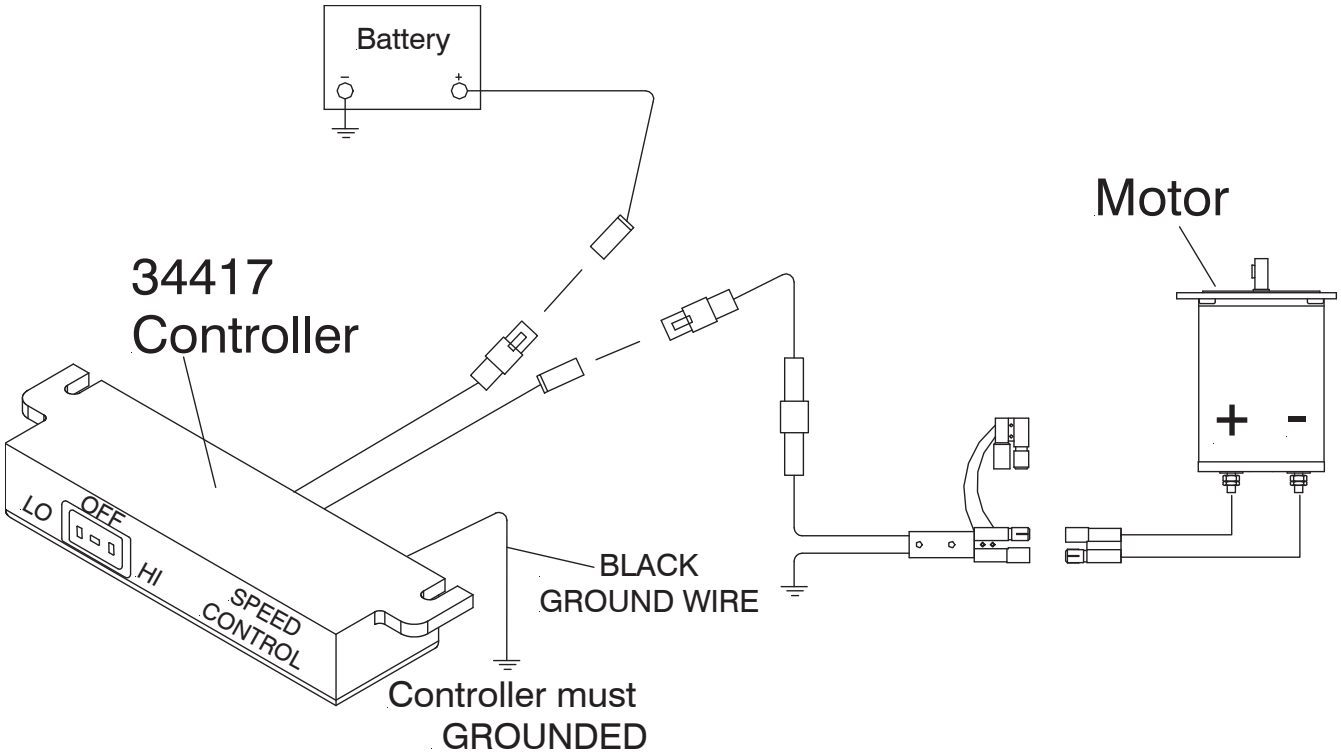
2. Attach the eyelet end of the 96" red wire to the positive terminal of the battery and route the plug end to the location of the speed control. **DO NOT attach to** Speed Control at this time.

3. Take the 222" red wire and route the large rubber plug end to the rear of the truck, securely tying to vehicle frame. Be certain wire is clear of any sharp or moving objects or the vehicle's exhaust system.

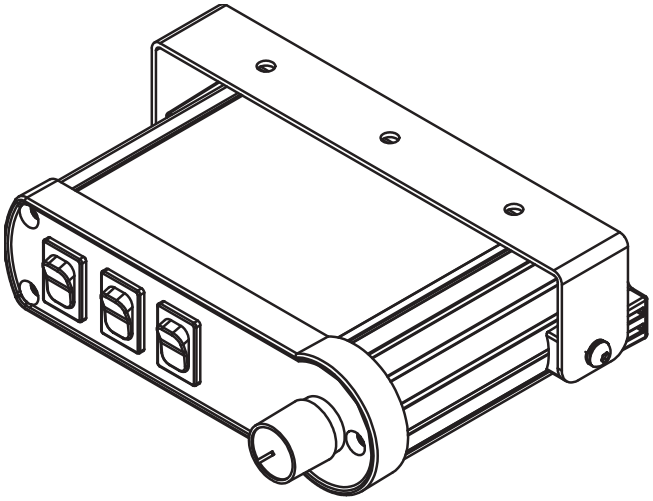
   CAUTION: Some vehicles are designed to operate with exhaust temperatures as high as 1800°F. This can easily damage any wires which are routed too closely or allowed to come in contact with any portion of the exhaust system. Be certain all wires are securely installed away from the exhaust system.

4. Be certain the motor leads will not be strained when the plug is attached. Plug the 222" red wire into the socket. Secure black wire from socket to a good grounding point on vehicle frame. Clean all rust or undercoating from this area.

5. Attach red wire from motor plug to positive (+) terminal of motor. Tape this connection! Attach black wire to negative (-) terminal of motor. Push plug into the socket. If spreader is removed, protect the socket using dummy plug.



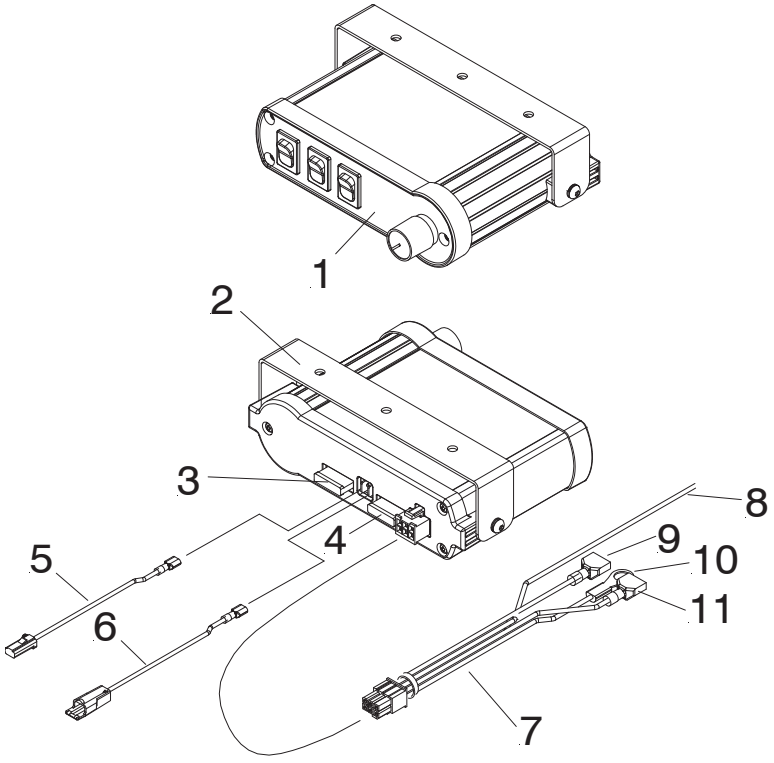
Part No. 22808 Speed Controller Installation & Operation



INSTALLATION INSTRUCTIONS (2 wire harness)

A. Choose a convenient location to mount controller (1). Mount mounting bracket (2) inside vehicle cab using three #10 x 1/2" pan phillips head screws provided.
B. Connect Black wire (10) from pigtail (7) to ground. Black Wire must be grounded before connecting any other wires. **Caution: Controller will be damaged if this is not followed.**
C. Connect Blue wire (8) from pigtail (7) to brake light.
D. Connect White wire (9) from pigtail (7) to vibrator white wire if equipped.
E. Connect Red wire (11) from pigtail (7) to a 12 volt keyed accessory.
F. Connect White jumper wire (5) to connector marked (motor white wire) on the back of the controller (1) and to matching connector on spreader harness.
G. Connect Red jumper wire (6) to connector marked (Battery Red wire) on the back of the controller (1) and to matching connector on spreader harness.

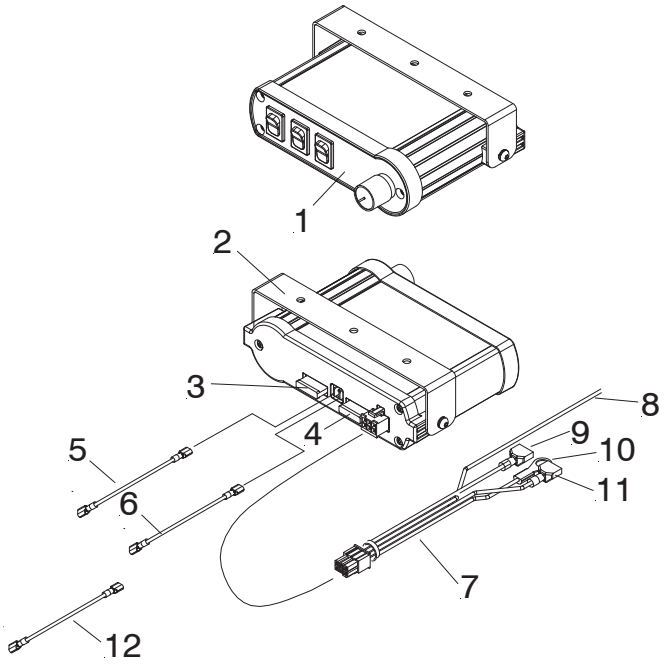
#3 30 Amp fuse
#4 10 Amp fuse



INSTALLATION INSTRUCTIONS (4 wire harness)

A. Choose a convenient location to mount controller (1). Mount mounting bracket (2) inside vehicle cab using three #10 x 1/2" pan phillips head screws provided.
B. Connect Black wire (10) from pigtail (7) to ground. Black Wire must be grounded before connecting any other wires. **Caution: Controller will be damaged if this is not followed.**
C. Connect Blue wire (8) from pigtail (7) to brake light.
D. Connect White wire (9) from pigtail (7) to vibrator white wire if equipped.
E. Connect Red wire (11) from pigtail (7) to a 12 volt keyed accessory.
F. Connect White jumper wire (5) to connector marked (motor white wire) on the back of the controller (1) and to matching connector (white wire) on spreader harness.
G. Connect Red jumper wire (6) to connector marked (Battery Red wire) on the back of the controller (1) and to matching connector (red wire) on spreader harness.
H. Connect brown and black wires on spreader harness together using Black jumper wire (12).

#3 30 Amp fuse
#4 10 Amp fuse



SPREADER CONTROLLER OPERATION

The controller is equipped with a power on switch, blast switch, vibrate switch and rotary speed control. Once the ignition key is turned to the ON position, the controller face plate will illuminate white indicating that the controller is ready for operation. During operation, face plate color will vary depending on the mode of operation and status of the controller.

To start the spreader, be sure that the vehicle engine is running to prevent battery from wearing down, flip the power switch to position I for normal mode or position II for auto mode. Once power switch is ON, the spreader will power up with 5 full blast for approximately one second then drop to wherever the dial has the speed set at. Adjust the speed of the spreader by rotating the dial clockwise for faster and counterclockwise for slower. The face plate will illuminate greener as the speed increases and will change completely to green at maximum speed.

If auto mode is selected, the face plate color will change to amber, the spreader will power up with 5 full blast for approximately one second then drop to wherever the dial has the speed set at. In this mode, if the brake is applied for more than 5 seconds, the spreader will stop and once the brake pedal is released, spreader will resume its operation.

The blast switch provides momentary full power override. During operation if blast switch is depressed, spreader will go on to full speed and the face plate color will change to blue.

If vibrator switch is flipped to the ON position I, vibrator motor will be activated as long as the switch is maintained at position I and the face plate will illuminate purple. If vibrator auto mode is selected at position II, vibrator motor will activate for 10 seconds every 60 seconds and will cycle the motor ON and OFF as long as the switch is maintained at AUTO position II. Face plate will change color to purple whenever the vibrator motor is activated.

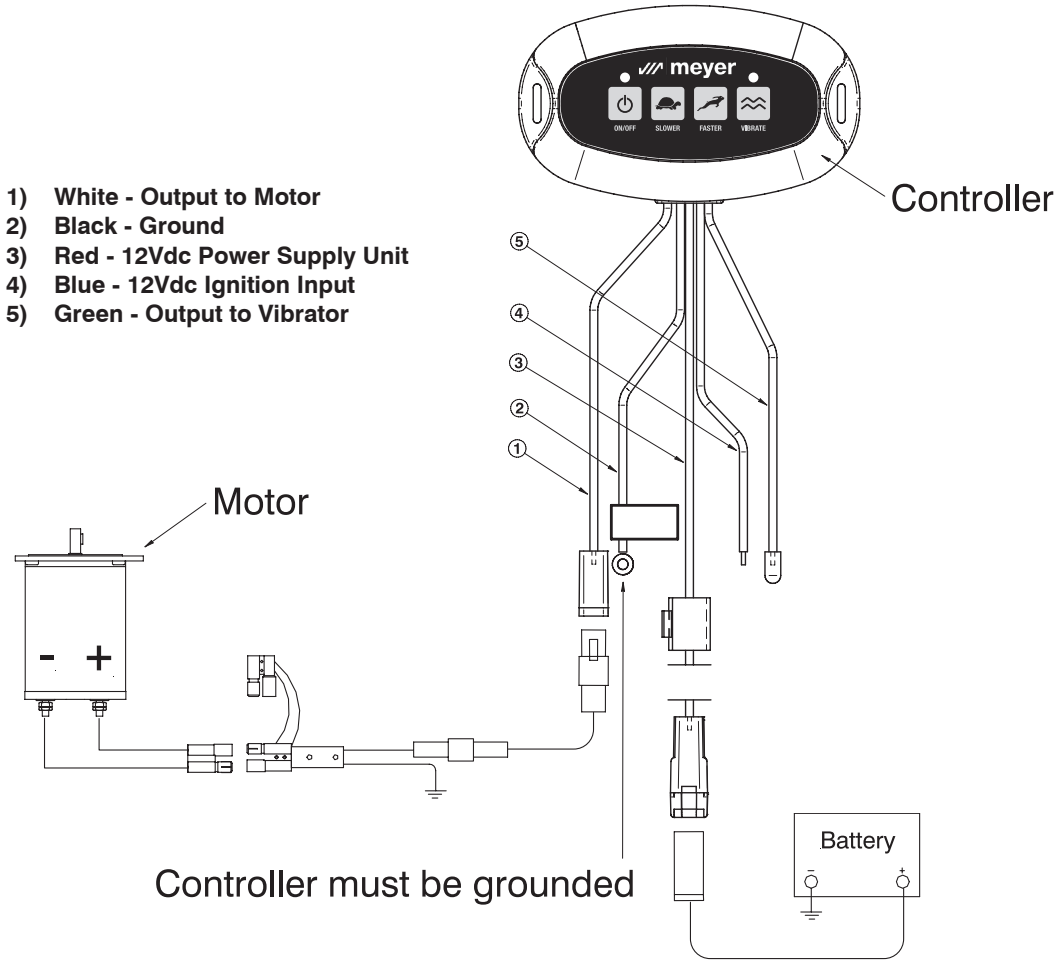
In case there is an overload condition, the face plate will change to red color and the spreader will stop. The Power **ON** / **OFF or AUTO** switch will need to be turned OFF to reset the controller.

PARTS & INSTALLATION INSTRUCTIONS
34405 Speed Controller

The Meyer 34405 Speed Controller is an electronic module powered off the switched ignition circuit +12Vdc and supplying the heavy motor current from the +12Vdc battery curcuit. The controller will only function with the ignition key in the ON state. The controller is connected to the spinner motor and vibration motors via a custom wire harness that is designed to handle the high motor currents. The controller can be mounted under the vehicle dash using mounting hardware that is provided in the kit. The controller is weatherproof and can be mounted in areas where it will get wet. The controller includes 5 wires as follows:

1) Output wire White (connects to the spreader motor positive post).
2) Ground wire Black (provides ground for the controller).
3) Power wire Red (power to the controller directly from 12V battery).
4) Ignition wire Blue (power to the controller through switched ignition).
5) Output wire Green (connects to the vibrator motor).

After all of the above connections have been made, turn the ignition switch to the ON position. When the controller ON/OFF button (located on the front display panel) is momentarily depressed once, the LED above the ON/OFF button will illuminate and the spreader motor will automatically be activated with 5 full power Blasts and then stop. The ON/OFF LED will remain steady ON. The spreader unit is now activated. The spreader unit will be deactivated if the controller ON/OFF switch is momentarily depressed a second time. The vibrate motor will start and stop when the vibrate button is depressed only when the unit is activated. The LED above the vibrate button will be illuminated when the vibrator motor is activated.



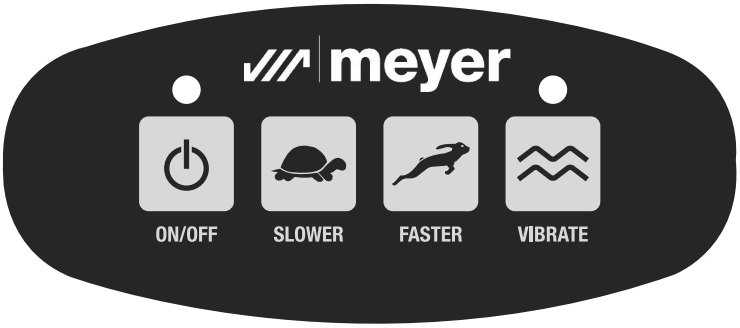
34405 CONTROLLER OPERATION

The controller will provide the spreader motor with multiple speed options per the following:

I/O (On/Off)	Depress the button once to enable the spreader motor operation. Spreader motor will automatically be activated with 5 full power Blasts and then stop. The GREEN LED located above this switch will illuminate.
I/O (On/Off)	Depress the button a second time and the spreader motor operation will stop. The GREEN LED located above this switch will stop illuminating.
FASTER	Once spreader is activated, by depressing the FASTER button momentarily for the first time, the motor will start rotating at the lowest speed. If the button is depressed again, motor will gain speed. Faster button can be depressed momentarily or held depressed to achieve maximum speed. There are ten programmed speed settings that increase the speed in increments of 10%. The GREEN LED located above the I/O button will flash in unison with the speed setting. The fastest speed causes the GREEN LED to flash at a rate of 10 flashes every second.
SLOWER	By depressing the SLOWER button, the motor speed will decrease. There are ten programmed speed settings that decrease the speed in increments of 10%. SLOWER button can be depressed momentarily or held depressed to slow down the motor until it comes to a halt. The GREEN LED located above the I/O button will flash in unison with the speed setting. The slowest speed causes the GREEN LED to flash at rate of 1 flash every second. When the light is solid green, the motor is not spinning, but the unit is still on.
VIBRATE (On/Off)	Depress the button once to enable the vibrate motor operation. The GREEN LED located above this switch will illuminate at full intensity.
VIBRATE (On/Off)	Depress the button a second time and the vibrate motor operation will stop. The GREEN LED located above this switch will stop illuminating.

SAFETY FEATURES

Controller will only be activated while ignition switch is at ON position, if the unit is wired into a keyed power source. There will be one inline fuse located at the incoming power wire harness. This will be a 20A automotive ATO fuse. This 20A fuse protects the spreader motor and/or vibrate motor from over current conditions. In the event that the fuse has opened circuited, replacement of the fuse will be required in order to restore the operation. Fuse replacement is facilitated with a pair of needle nosed pliers. The controller also has overload protection built into the circuit board. If an overload occurs the green LED above the I/O button will turn red and will begin to flash. To reset, turn off controller and clear obstruction from spreader then turn controller back on.



Meyer Wireless Controller

The wireless controller is a compact unit with two parts. One part is the **Base Unit (Receiver)** and the other part is the **Keyfob (Transmitter)**. The Keyfob is used to send a corresponding signal to the Base Unit to act as a remote switching device.

Set-up and Operation

The Meyer Wireless Controller comes factory programmed. That means matching the Base Unit to the Keyfob has been done by Meyer Products, LLC. This gives a matched (1 of 16 million combinations @ 418MHz) interface between the Keyfob and Base Unit. See (Fig. 1) for keyfob button assignments. On the 8 button Meyer Spreader Keyfob, all (8) buttons are used when programming. When programmed, only (5) buttons have a function.

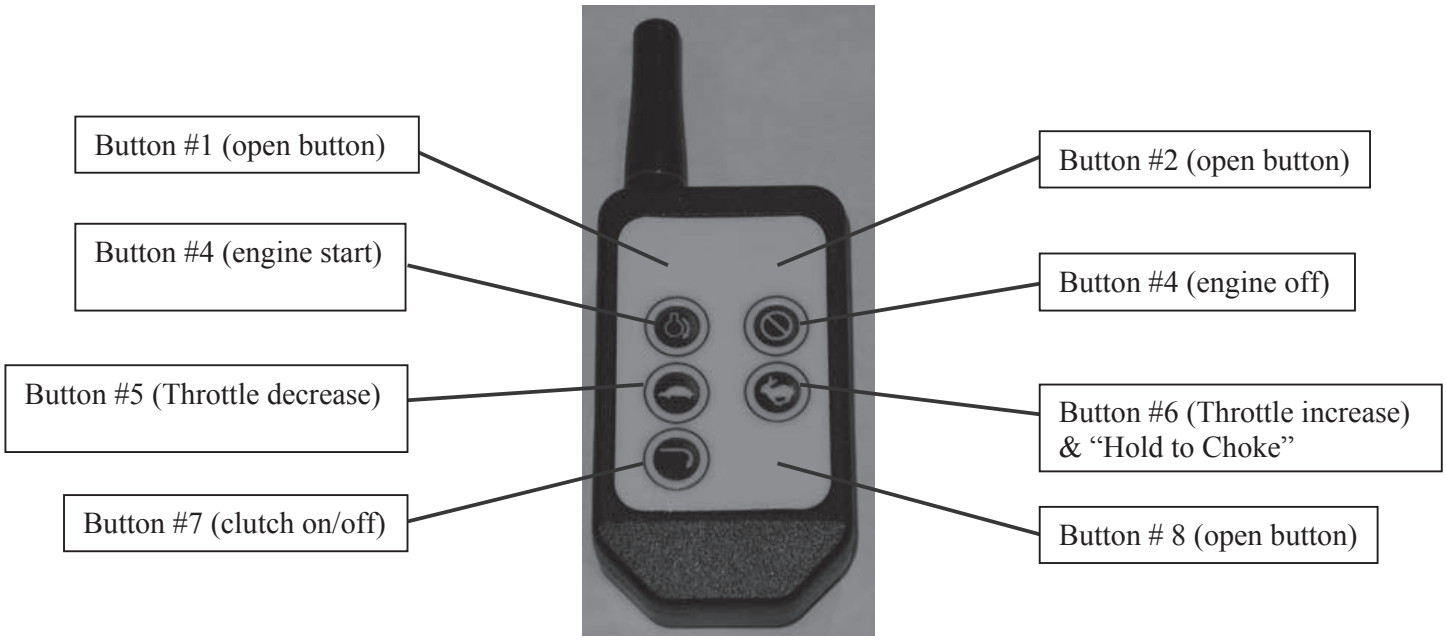


Fig. 1: Keyfob Front Button Assignments

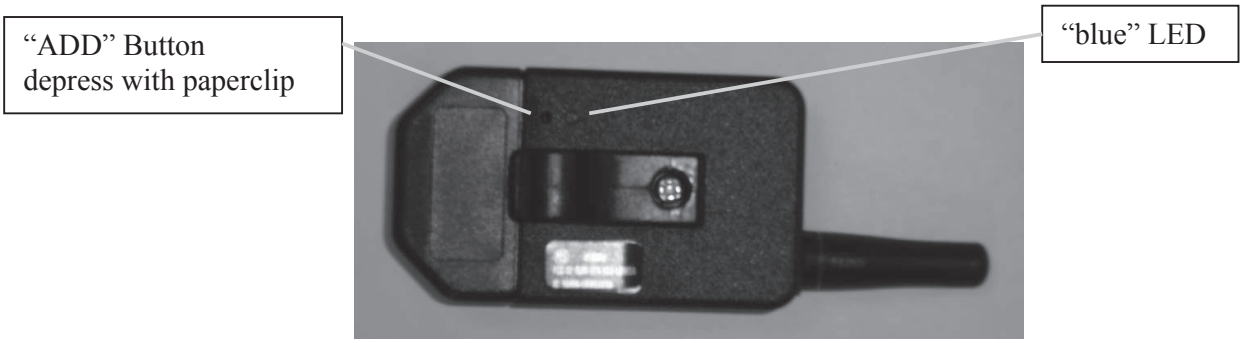


Fig. 1: Keyfob Back Button Assignments

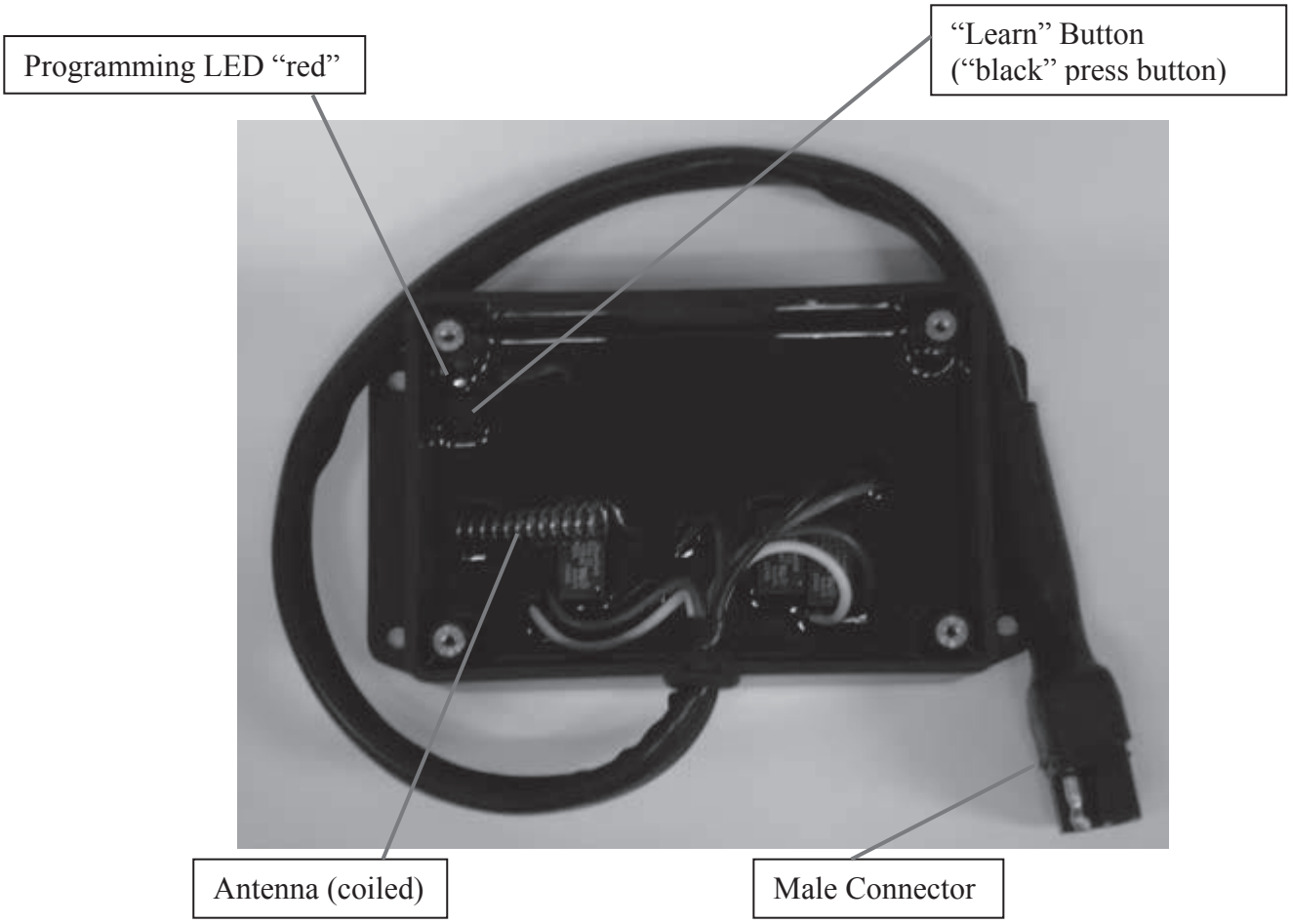


Fig. 2: Base Unit layout (Figure shown without Base Unit Cover)

Programming the Keyfob and the Base Unit:

The next step to the wireless controller installation is to create a 1 in 16 million address between the Keyfob and the Base Unit.

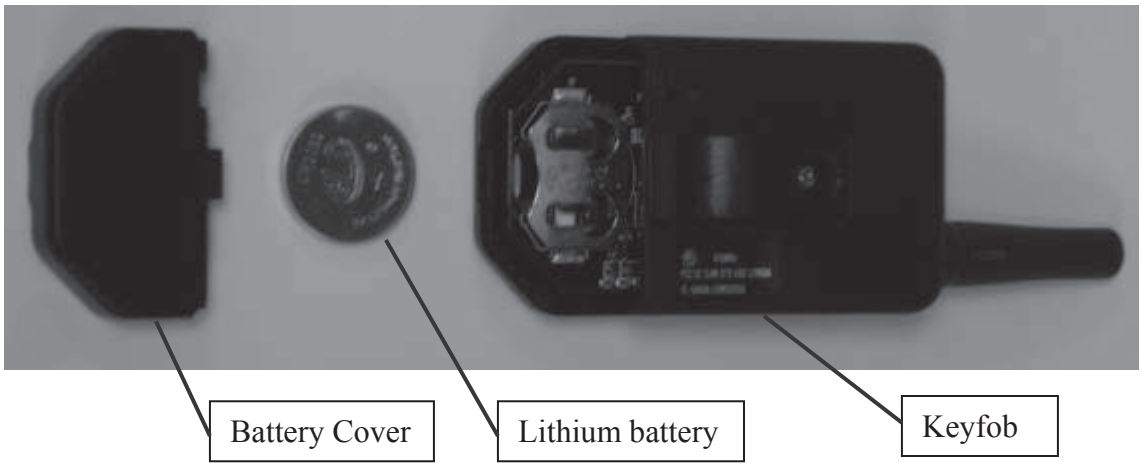
Please follow these steps:

1. Power-up the Base Unit. (Connect and supply a power source to the Male Connector).
2. On the backside of the Keyfob depress the “ADD” button using a paperclip (if working properly the blue LED will blink).
3. Flip the Keyfob over and push all buttons (#1 thru #8). The blue light will automatically turn off after approximately 18 seconds from the time you first push the “ADD” button. The Keyfob is now programmed.
4. On the Base Unit, push the black “Learn” button. The red LED will begin to blink.
5. On the Keyfob push all buttons (#1 thru #8).
6. Again, on the Base Unit, push the black “Learn” button. The red LED will stop blinking. The Base Unit is now addressed to the Keyfob.

Your Meyer Wireless Controller is now ready to use!

Battery Replacement

The Keyfob uses a standard CR2032 lithium button cell battery. In normal use it will provide 1 to 2 years of operation. To replace the Keyfob battery, gently press and slide the battery cover off. Remove the battery by sliding it out from underneath the retainer. Observe the battery polarity when replacing ("+" showing face up).



Other Considerations

Only one transmitter at a time can be activated within a reception area. Only one carrier of a particular frequency may occupy the same airspace at a given time. This means that if two transmitters are activated in the same area at the same time the signals will interfere and the decoder on the receiver will not see a valid transmission and the wireless controller will not function. If the range of the transmitter needs to be increased, contact your supplier and ask about antenna options of up to 1000ft.

Also Meyer Products, LLC has no control over the intended usage of this product. Because of that Meyer Products, LLC offers no written or expressed liability as to how this product is used. Meyer Products, LLC recommends that these units are intended for **OFF ROAD USE ONLY!**

TROUBLE SHOOTING

Follow these steps:

- When the base unit is powered up, make sure the "red" LED comes on when the Keyfob buttons are depressed. If the "red" LED does not come on, the Base Unit is not getting a signal from the Keyfob.. If the battery in the Keyfob is more than 2 years old check battery voltage with a meter or replace battery as needed.
- After completing the above steps and the unit still will not function, follow the procedure, **Programming the Keyfob and the Base Unit**.
- If the unit still will not operate. Check connections to the component that the unit is trying to operate using a voltmeter.

Standard & Standard Plus Controller Operation

OVERVIEW The standard spreader control system offers independent output control for the auger rate and spinner rate. The standard plus spreader control system offers independent output control for the auger rate, spinner rate, and pre-wet flow.

OPERATION The vehicle ignition must be turned on in order for the controller to operate. When the ON/OFF switch is in the “OFF” position, the controller has no functions and spreader will not operate. When ON/OFF switch is in the “ON” position, the spreader functions are able to be used and the spreader can be operated. Be sure to turn off the spreader controller before turning the vehicle ignition off.

BLAST FEATURE When the blast feature is activated the auger, spinner, and pre-wet functions will automatically operate at setting “10” regardless of where they were set before the blast mode was activated. Once the blast mode is deactivated the auger, spinner, and pre-wet functions will return to their previous settings.

VARIABLE SPEED SETTINGS The controller is equipped with two (standard) or three (standard plus)variable speed functions, one each for the auger feed rate, spinner speed rate, and pre-wet flow (standard plus) rate. Variable speed functions have settings of 0 -10 with setting 10 being full output. The variable speed settings can be changed by turning the AUGER, SPINNER, or LIQUID “clockwise” to increase the output, and “counter clockwise” to decrease the output. Each variable speed function has 10 number settings to provide a visual indication of the current setting. Variable speed settings will not operate at setting “0”. spreader. Any time the variable speed setting is at any setting higher than “0” the auger, spinner, or pre-wet function is capable of operating.

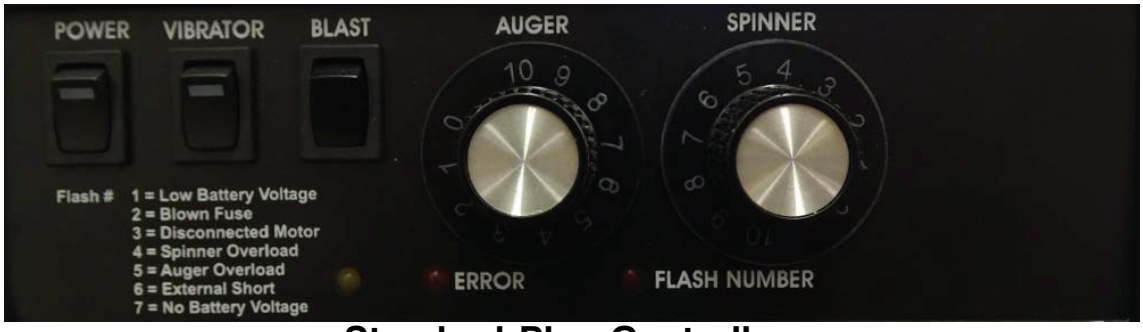
VIBRATOR The spreader mounted vibrator can be activated by pressing the Vibrator button.

Error Light/Flash Number Light The error light will iluminate along with the flash number light when the spreader encounters a problem. The flash number light will begin to flash on and off, Count the number of flashes which will correspond to the spreader issue.

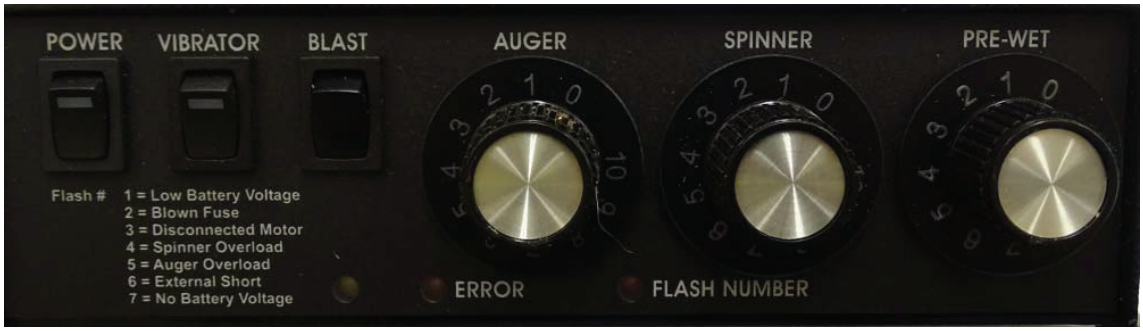
1 Flash Low vehicle battery voltage
2 Flashes Blown controller fuse
3 Flashes Disconnected Motor
4 Flashes Spinner overload
5 Flashes Auger overload
6 Flashes External Short
7 Flashes No vehicle battery voltage

When a jam is encountered the auger will reverse for 3 seconds and then resume in the normal direction. If the jam is encountered again it will reverse for 2 more cycles and if not cleared it will not operate the spreader at all. The power will need to be disconnected from the spreader and the jam will need to be manually cleared. Once the jam is cleared reconnect the power to the spreader and cycle the on/off switch. The controller will now operate.

Standard Controller



Standard Plus Controller



Meyer 66190 Spreader Controller

The wireless gasoline engine controller is intended to control the start/stop, throttle increase/decrease and electric clutch on/off functions

Operation

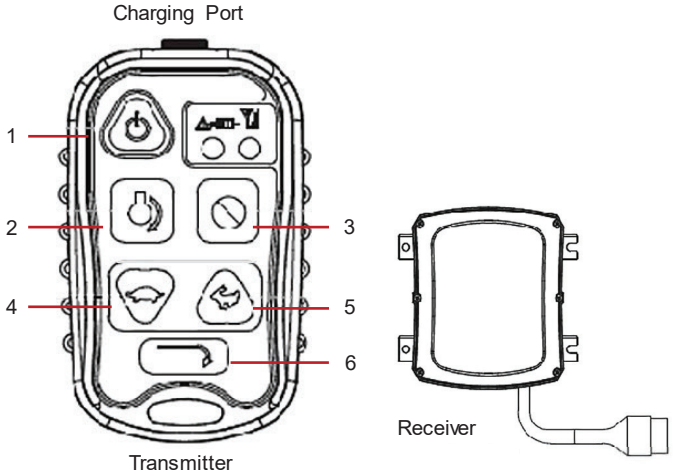
The control system consists of a transmitter and a receiver. The receiver is mounted to the spreader near the gasoline engine. The transmitter is intended to remain in the vehicle cab or with the operator.

1. Press and hold the POWER button for at least three seconds to turn on the transmitter. The green LED light will begin to blink.
2. Set engine throttle to choke by pressing and holding the throttle INCREASE button for at least three seonds.
3. Press and hold the engine START button until the engine starts. NOTE: Continuing to hold the engine button after the engine starts may result in engine damage.
4. Once the engine starts, press the throttle DECREASE button to remove throttle from choke position.
5. Press the throttle INCREASE or throttle DECREASE button until the desired engine RPM is achieved.
6. Engage the electric clutch by pressing the CONVEYOR button once. Pressing the CONVEYOR button a second time will disengage the clutch. NOTE: The green LED light will turn solid whenever the clutch is engaged.
7. Engine can be stopped by pressing the engine STOP or POWER buttons. NOTE: Pressing the engine STOP or POWER buttons will automatically disengage the electric clutch.

	Specifications
Battery	12 Volt Battery
Frequency	902-928-MHz FHSS 10Mw
Transmitter Battery	Standard Micro USB wall or car port

	Transmitter LED Light Codes
Red LED Light	
Blinks once per second	Low Battery
Green LED Light	
Binks once per second	Transmitter on – not communicating with the receiver
Blinks twice per second	Transmitter on – Communicating with the receiver
Solid	Clutch is engaged

	Button Functions
1	Power On/Off
2	Engine Start
3	Engine Stop
4	Throttle Decrease
5	Throttle Increase
6	Conveyor On/Off



Synchronizing Transmitter and Receiver

Each transmitter and receiver pair are synchronized at the factory. If a new transmitter is needed, use the following procedure to synchronize:

- Make sure both the transmitter and receiver are powered off.
- Press and hold the POWER button on the transmitter for at least 10 seconds. Both the red and green LED lights will begin to blink.
- Apply power to the receiver. Wait for a few seconds until only the green LED light begins to blink. The transmitter and receiver are now synchronized.

Sleep Time Adjustment

The sleep mode will automatically shut off the transmitter, disengage the electric clutch and stop the gasoline engine. The transmitter is factory set to go into sleep mode after 15 minutes of inactivity. Use the following procedure to change the sleep time or disable sleep mode:

- With the transmitter powered off, press and hold the POWER button, throttle DECREASE, throttle INCREASE and CONVEYOR buttons.
- Release the buttons. The red and green LED lights will blink once per second.
- On the transmitter press one of the following buttons for desired sleep time:
  - ENGINE STOP – 15 Minutes (default setting)
  - ENGINE START – 30 Minutes
  - THROTTLE INCREASE – 1 Hour
  - THROTTLE DECREASE – 2 Hours
  - CONVEYOR – Disable Sleep Mode

AMP DRAW

Hydraulic Model	Operating Amps (not in by-pass)	Operating Amps (In by-pass)
E-47	125-140 Amps	200-230 Amps
E-57, E-58, E-60, E-68	105-120 Amps	170-200 Amps
E-70, E-72	115-130 Amps	185-215 Amps
V-70, V-72	135-145 Amps	215-240 Amps

Spreader Model	Spinner Operating Amp Range	Spinner Start up Amp Range	Vibrator Amp Range
BL 240/400	8-17 amps	22-28 amps	5-7.5 amps
Mate	8-17 amps	22-28 amps	5-7.5 amps
Blaster/Magnum	8-25 amps	38-45 amps	5-7.5 amps

Spreader Model	Spinner Operating Amp Range	Spinner Start up Amp Range	Vibrator Amp Range
Crossfire	6-14 amps	15-19 amps	5-7.5 amps
	Auger/Conveyer Operating Amp Range	**Auger/Conveyer Star up Amp Range**	
	18-49 amps	56-66 amps	

AMERICA'S BEST WARRANTY 5 YEARS

Meyer is proud to offer the longest warranty in the industry.

Meyer offers a full 5-year complete plow warranty with online registration. All Blaster and Crossfire spreaders are also backed with our full 5-year warranty when registered.

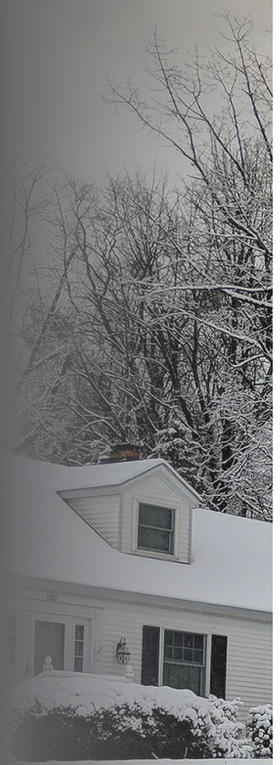
Dependable Solutions. Superior Service.

Since 1926, Meyer has been a leader in manufacturing highly reliable snow and ice control equipment. Throughout the years, Meyer has remained committed to improving our customers' performance with dependable solutions and superior service. Meyer is a trusted brand of the Aebi Schmidt Group.

Look to Meyer for a full line of commercial snowplows and spreaders.

Snowplows

Salt Spreaders



Technical data is subject to change.
Illustrations are not binding

Meyer Snow Plows are protected by one or more of the following patents: 8006413, D0507999 S, D05179635, 8453358, 8695238, 7,918,042 B2, CA 2,677,509 C, D0517963 S, EP 1,989,402 B1, ES 2,346,587, 6138388, 7,591,087 B2, 7,661,211 B2, 7,793,440 B1, 8739437, 8793906, CA 2,604,085C, 6354024, 6276075, 6,318,975 B1, 6564479, 6256909, 6594923, 6618964, 7114270, 7117617, 7290359, D399326 S, CA 2,300,012 C, CA 2,314,772 C, CA 2,331,653 C, CA 2,370,925 C, CA 2,455,637 C, CA 2,653,801 C, CA 2,654,856, EP 1,010,809, 7353628, 6153975, 6273729, CA 2,260,509 C, CA 2,282,045 C, CA 2,293,858 C, CA 2,298,243 C, 6265829, 6015219, 6005300, 6163985, 8,887,413, 9,278,645, 9,346,394, 9,205,788

Meyer Spreaders are protected by one or more of the following patents: 6698997, CA 2,415,540 C, 7588195, 8448882, 8505837, 8523086, 8657208, 6186731, 6,793,154 B2, 6722590, 6715703, 6978952, 6932287, 8505838, 8827002, 5842649, CA 2,435,106 C, 6364598, 9,127,425, 9,127,425, 9,371,621, 6,722,590, 6,715,703, 6,932,287, 6,978,252, 9,371,621, 9,085,862, 9,096,979.

Rev. 7/23

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