

**This document covers non-standard parts for Domino's RA45**

**Use ONLY as a Reference Guide!**

**MAXON PM procedures and safety precautions in maintenance manual must be followed at all times!**

**Maintenance items not shown in this document can be found at the [Maxonlift.com - RA Product Information](#).**

**MAXON®** Maintenance Manuals are found at [www.maxonlift.com](http://www.maxonlift.com). Click link above and use the "PRODUCT DOCUMENTATION" pull down menu in the lower right-hand corner to select "Maintenance Manual".

**Key Feature unique to Domino's RA45 covered in this document:**

- Power Down
- Dual Pump/Motor
- Flashing Lights on Lift Arm / Work Lights in Platform
- V-Check Battery Gauge
- Cable/harness routing inside sliding frame

Standard parts not shown in this document can be found at the [Maxon Parts Portal](#). [RA Parts List](#).

M-Sheets can be found at [Maxonlift.com - Support - Technical Publications](#). (Select RA liftgate model)

Liftgate charging system owner's manual – [Maxonlift.com – Products - Charging Solutions](#)



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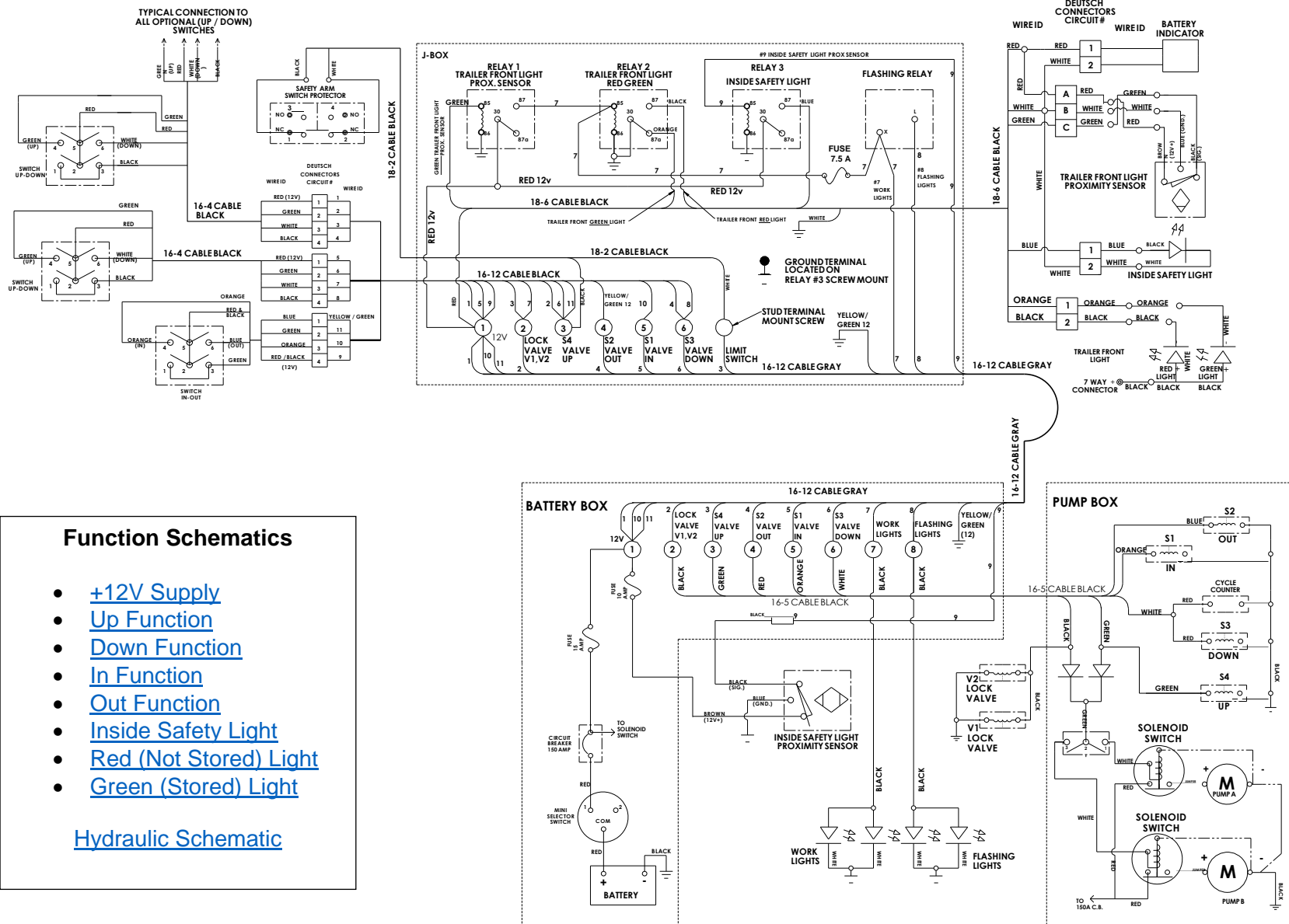


# Domino's RA-45 Specification

289905-01 Rev D1.2.4

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### System Wiring Schematic



### Function Schematics

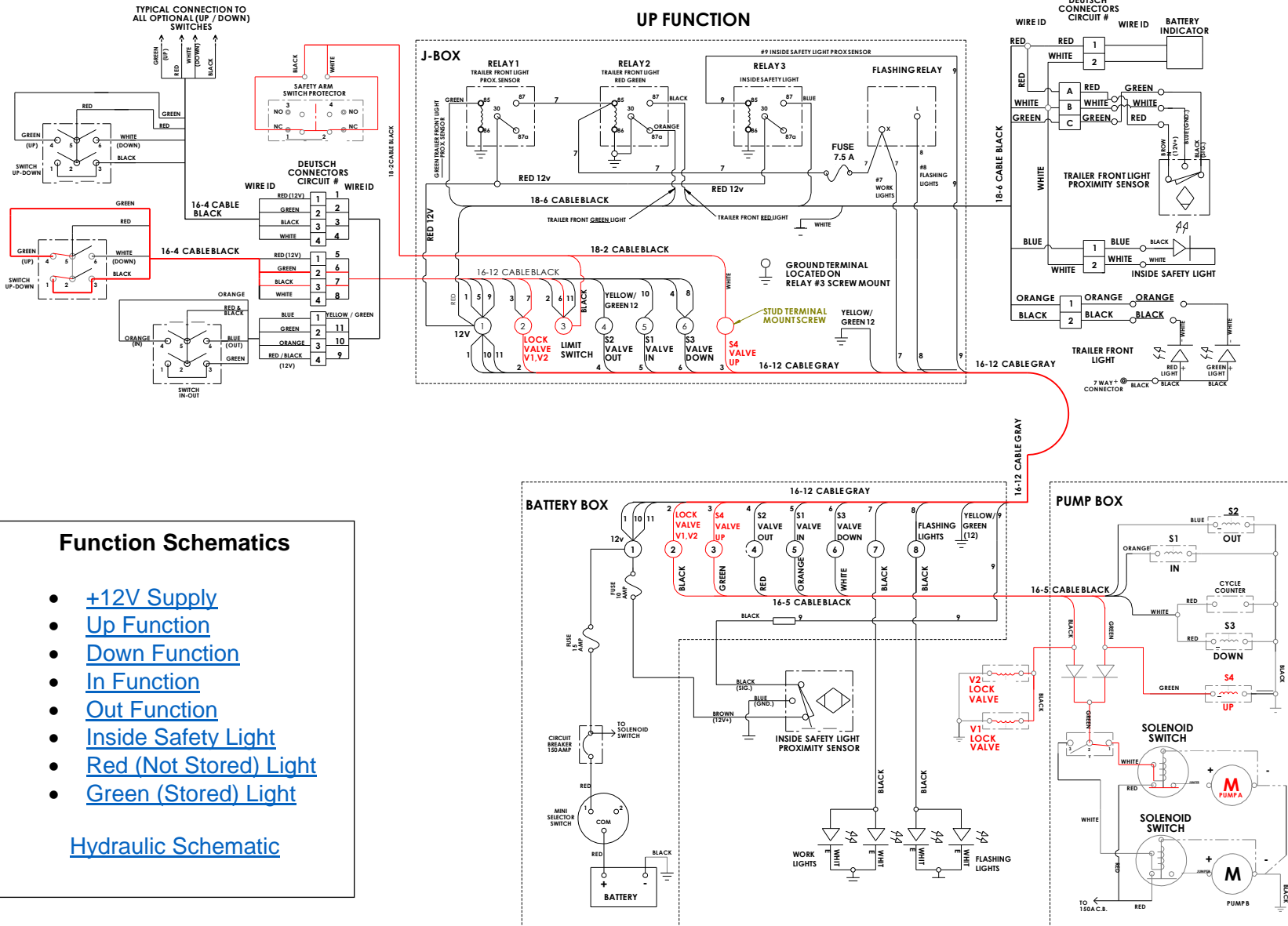
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- [Up Function](#)
- [Down Function](#)
- [In Function](#)
- [Out Function](#)
- [Inside Safety Light](#)
- [Red \(Not Stored\) Light](#)
- [Green \(Stored\) Light](#)

### [Hydraulic Schematic](#)



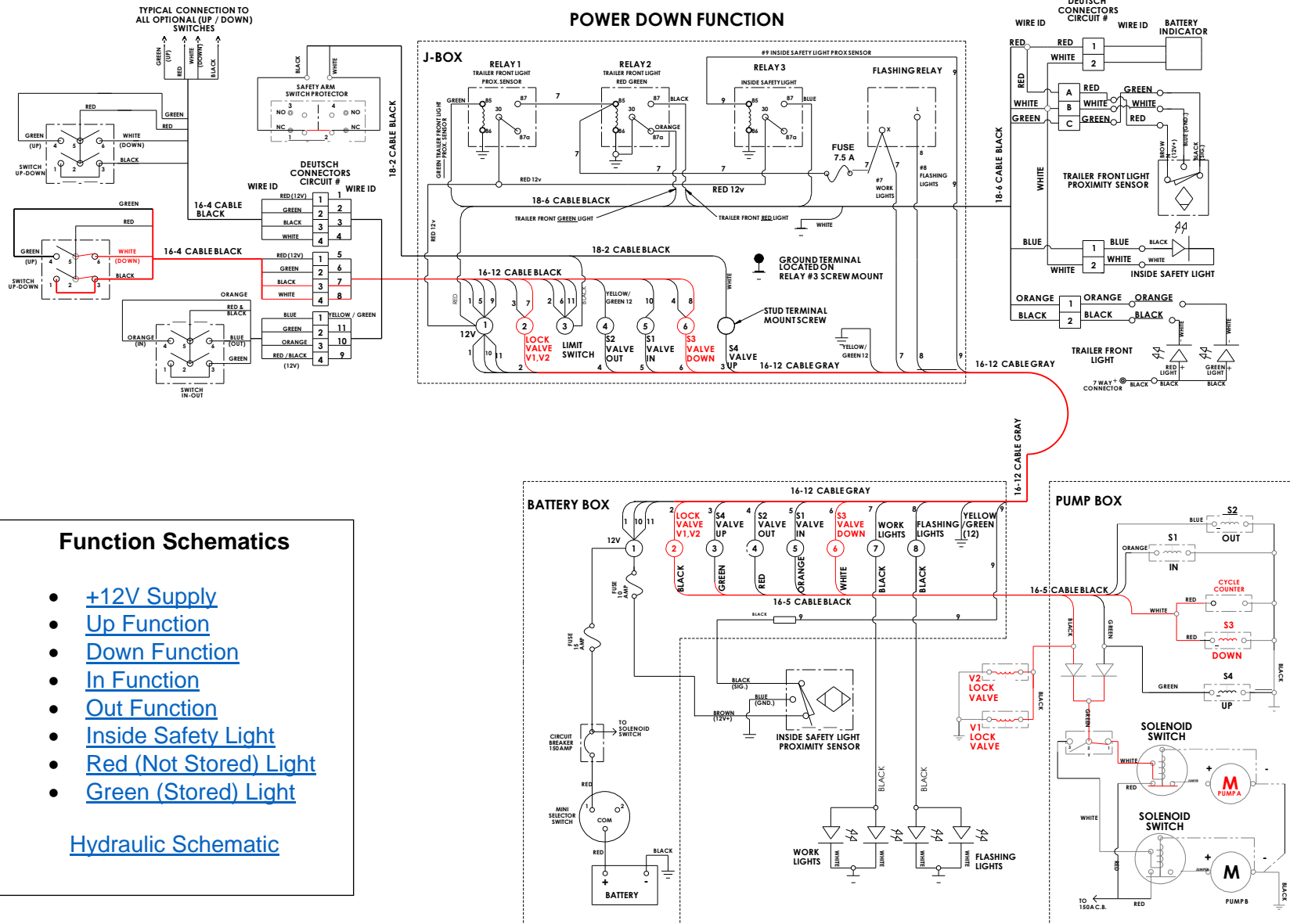
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## Schematic, Up Circuit



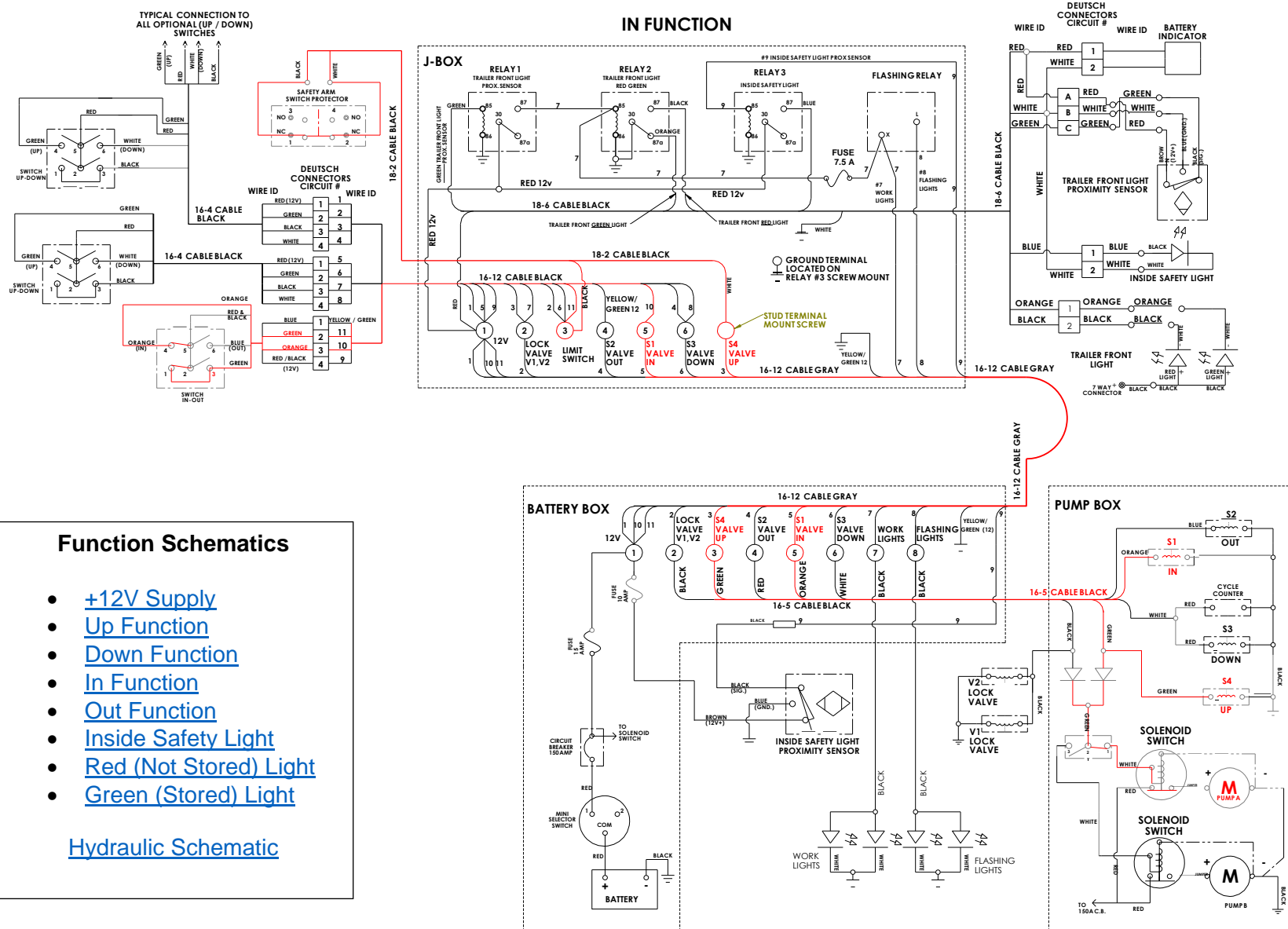
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## Schematic, Down Circuit



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## Schematic, In Circuit



### Function Schematics

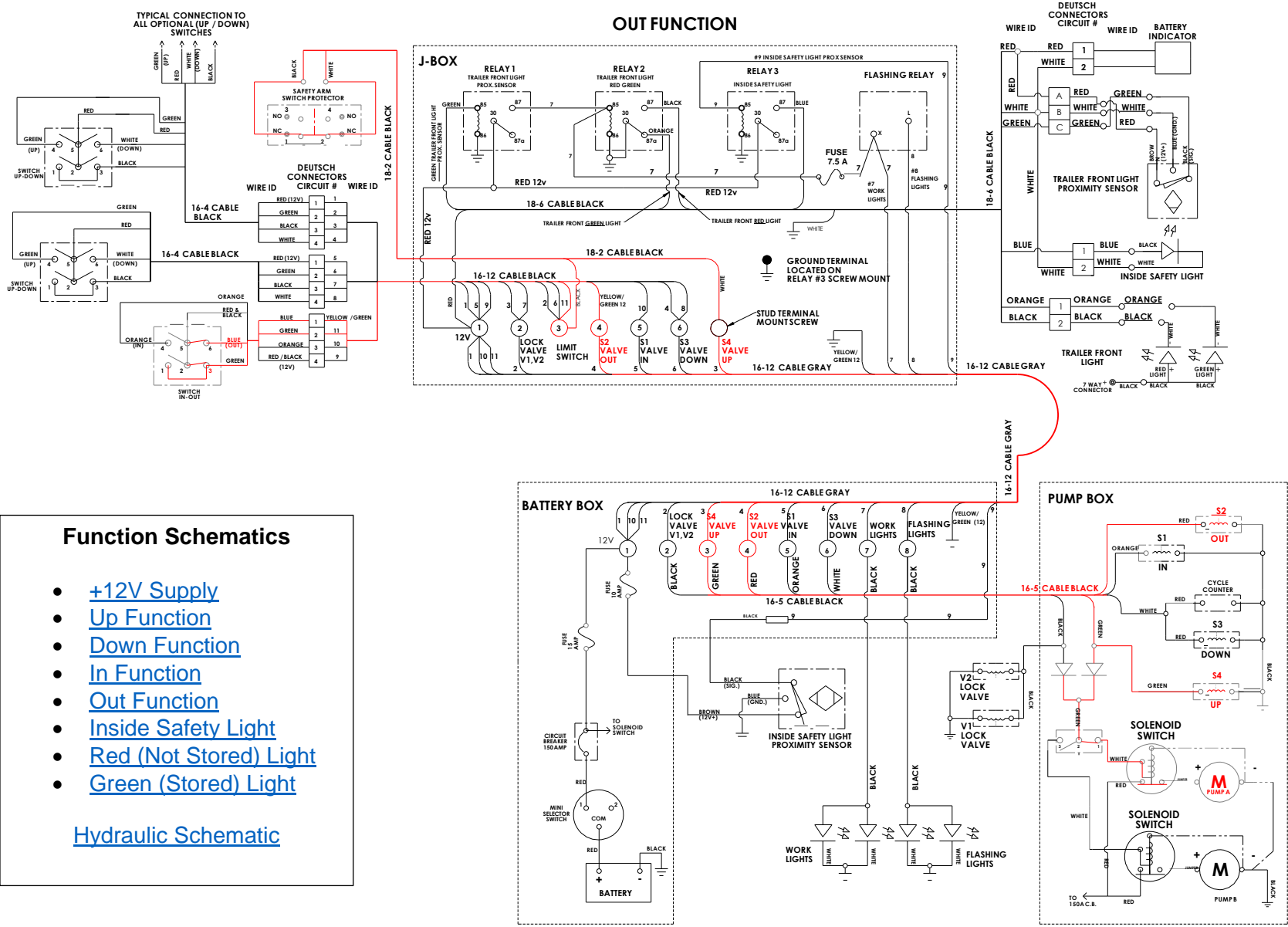
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[Hydraulic Schematic](#)



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## Schematic, Out Circuit



### Function Schematics

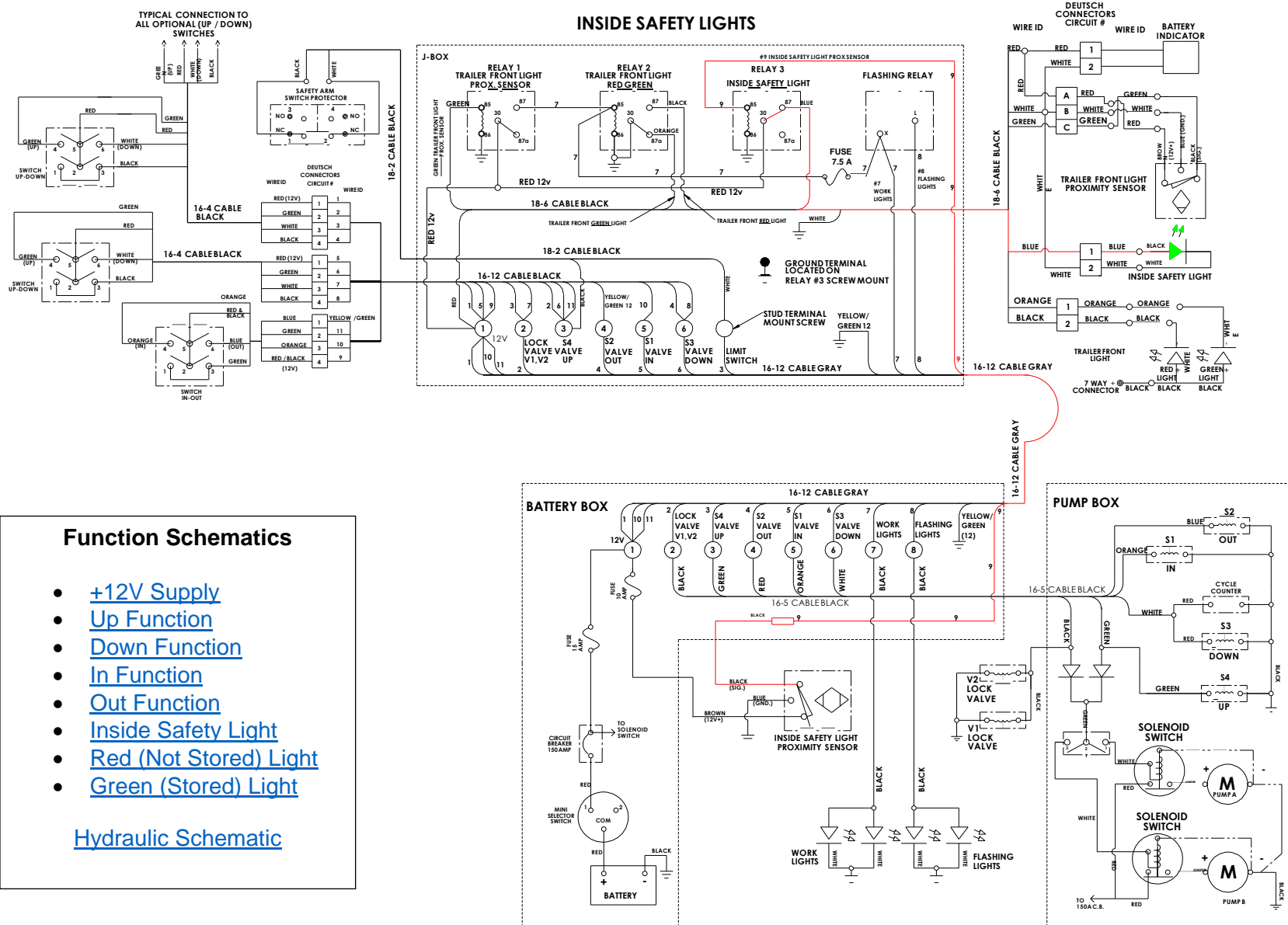
- [+12V Supply](#)
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[Hydraulic Schematic](#)



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## Schematic, Inside Safety Light Circuit

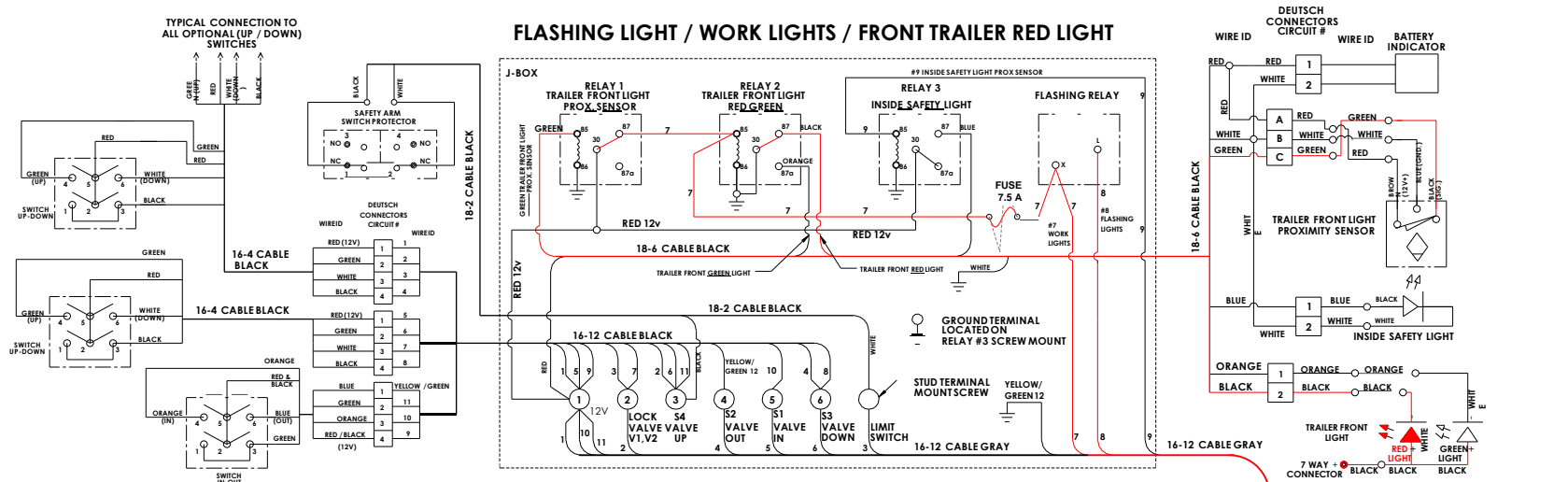


### Function Schematics

- [+12V Supply](#)
- [Up Function](#)
- [Down Function](#)
- [In Function](#)
- [Out Function](#)
- [Inside Safety Light](#)
- [Red \(Not Stored\) Light](#)
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[Hydraulic Schematic](#)

## Schematic, Red (Not Stored) Light Circuit

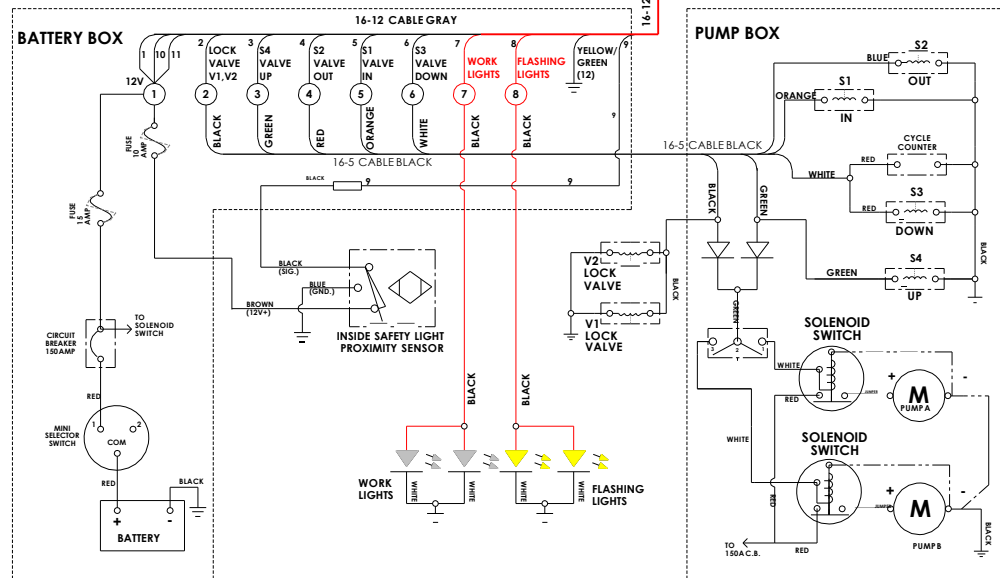


**TRACTOR 7-WAY PLUG MUST BE CONNECTED TO TRAILER FOR GREEN / RED LIGHT FUNCTIONS**

### Function Schematics

- [+12V Supply](#)
- [Up Function](#)
- [Down Function](#)
- [In Function](#)
- [Out Function](#)
- [Inside Safety Light](#)
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- [Green \(Stored\) Light](#)

[Hydraulic Schematic](#)



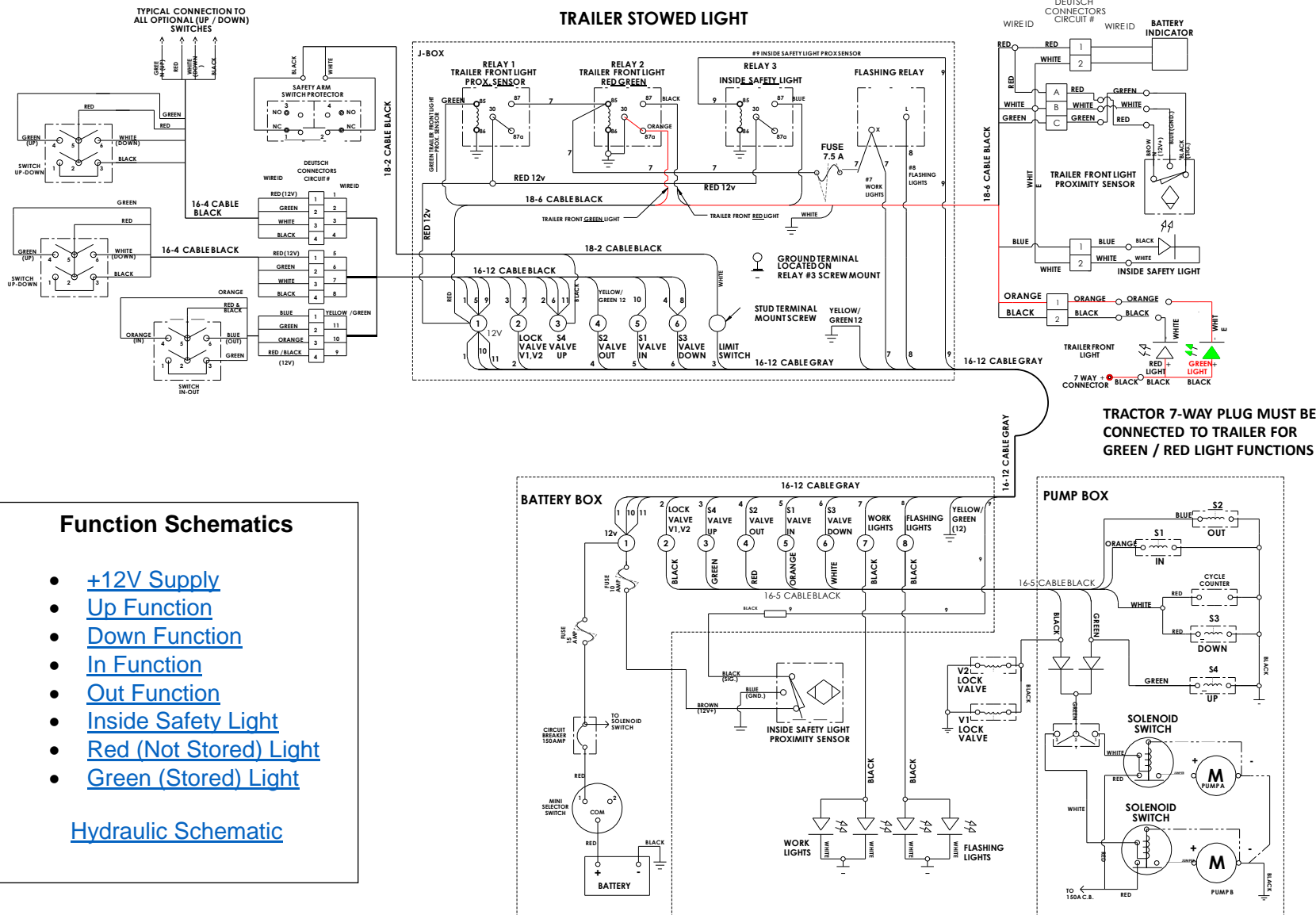


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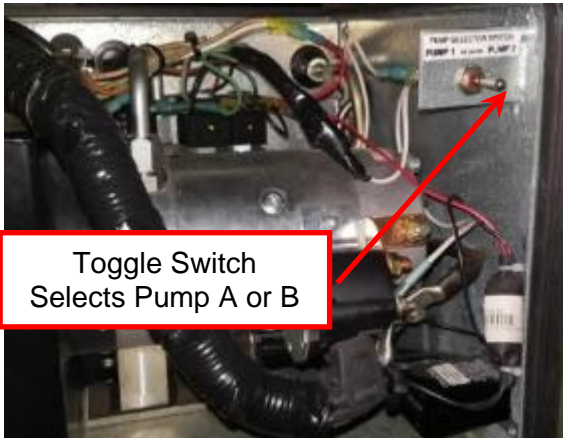
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### Schematic, Green (Stored) Light Circuit



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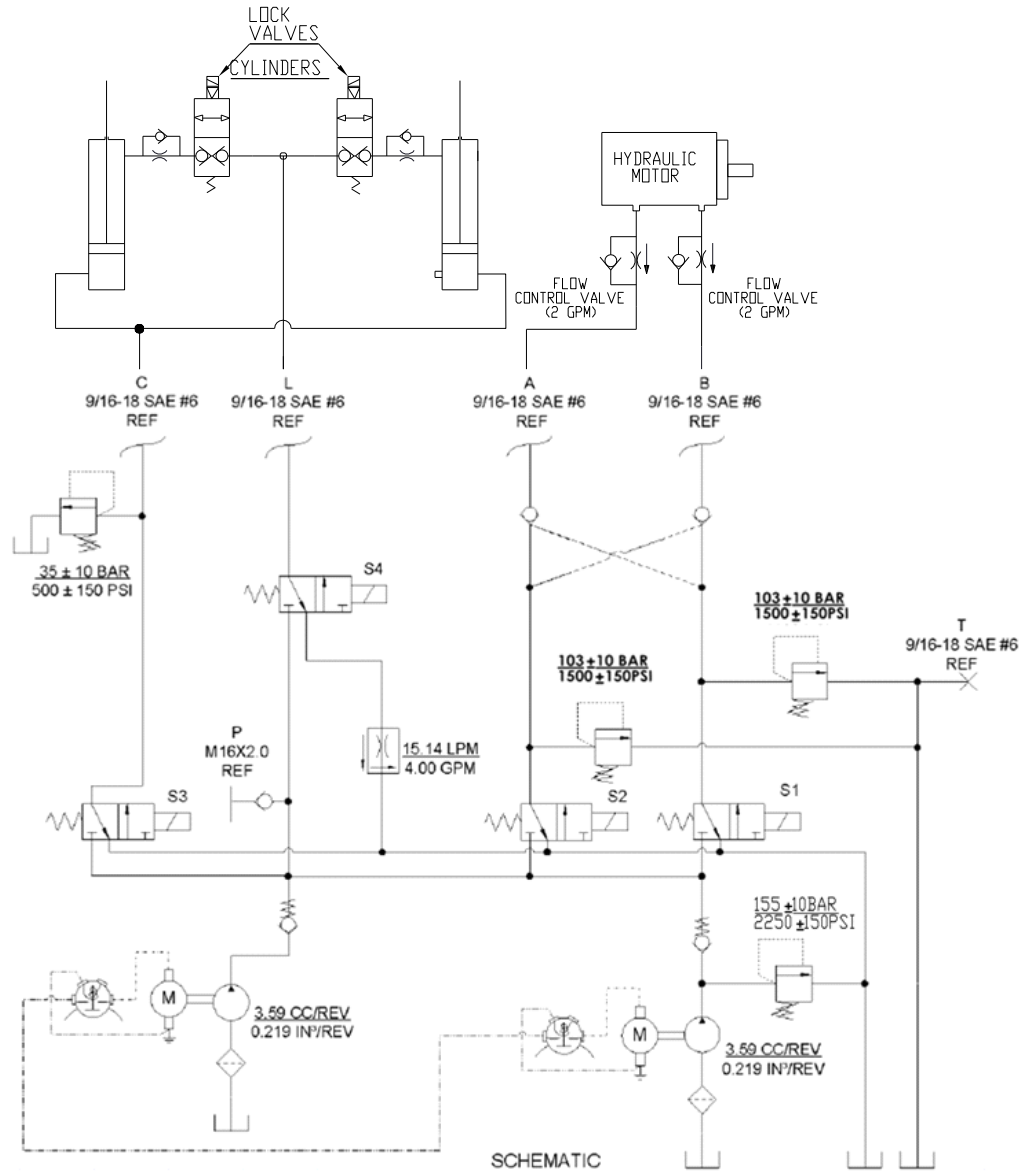
## Hydraulics: Schematic



POWER UNIT AND VALVES WORKING DIAGRAM							
FUNCTION	PORT	SOLENOID OPERATION					CYLINDER LOCK VALVE
		MOTOR	VALVE "S1"	VALVE "S2"	VALVE "S3"	VALVE "S4"	
LIFT	L	ENERGIZED	-	-	-	ENERGIZED	ENERGIZED
LOWER	C	ENERGIZED	-	-	ENERGIZED	-	ENERGIZED
SLIDE OPEN	A	ENERGIZED	-	ENERGIZED	-	-	-
SLIDE CLOSE	B	ENERGIZED	ENERGIZED	-	-	-	-

SEE VALVES ON POWER UNIT HYDRAULIC SCHEMATIC

- ### Function Schematics
- [+12V Supply](#)
  - [Up Function](#)
  - [Down Function](#)
  - [In Function](#)
  - [Out Function](#)
  - [Inside Safety Light](#)
  - [Red \(Not Stored\) Light](#)
  - [Green \(Stored\) Light](#)





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## Hydraulic Hose Fitting Torque

&

## Electrical Values, Power Unit

### JIC 37°

Size	Thread	FFWR Method	ft-lb	Nm
-4	1/4"	7/16-20	2	13
-6	3/8"	9/16-18	1-1/2	30
-8	1/2"	3/4-16	1-1/2	57

### ORFS (O-ring face seal)

Size	Thread	FFWR Method	ft-lb	Nm
-4	1/4"	9/16-18	1/2 to 3/4	26
-6	3/8"	11/16-16	1/2 to 3/4	42
-8	1/2"	13/16-16	1/2 to 3/4	57

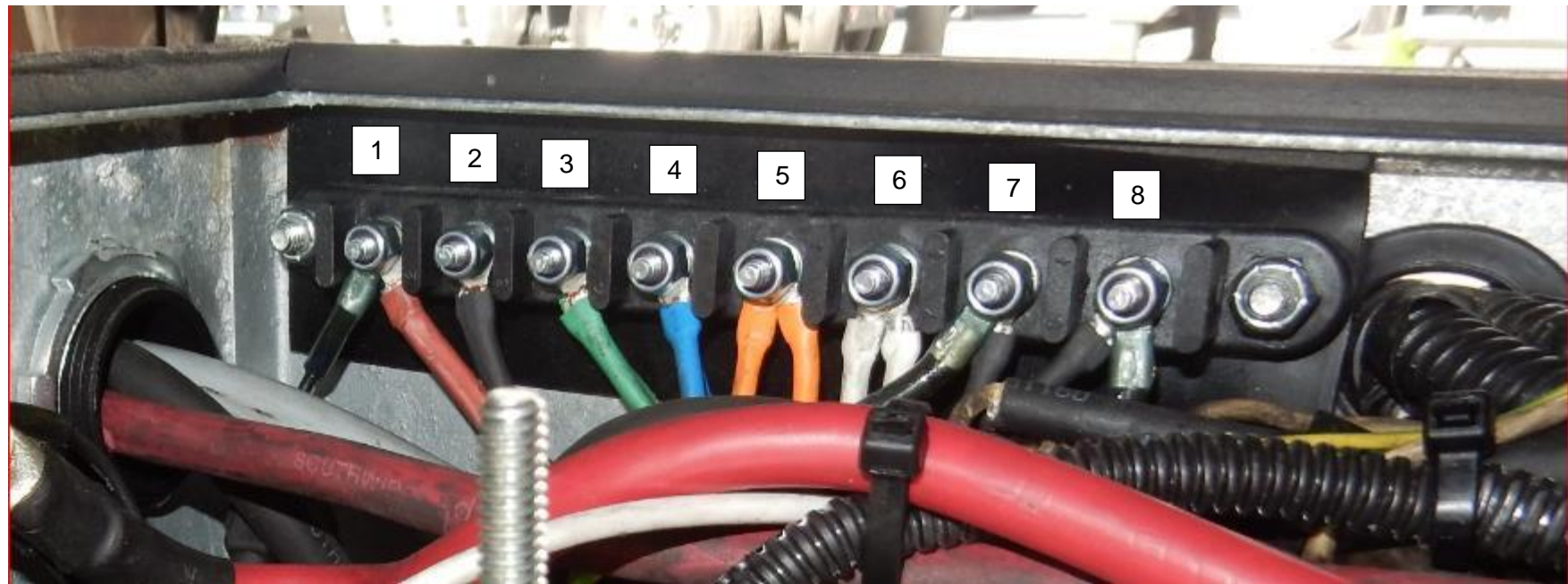
FFWR = Flats From Wrench Resistance

Flats Method Tighten the nut lightly with a wrench (approximately 30 in.lb.), clamping the tube flare between the fitting nose and the sleeve. This is considered the Wrench Resistance (WR) position. Starting from this position, tighten the nut further by the number of flats from Tables above. A flat is referred to as one side of the hexagonal tube nut and equates to 1/6 of a turn.

70°F. ±15%
@ 12.5V
h max.
h max.
70°F. ±15%
2.5V / 2.5A
40V
h max.
70°F. ±15%
@ 12.5V
h max.
70°F. ±10%
A @ 12V
/valve



## Emergency Bypass for Harness and Switches Failures

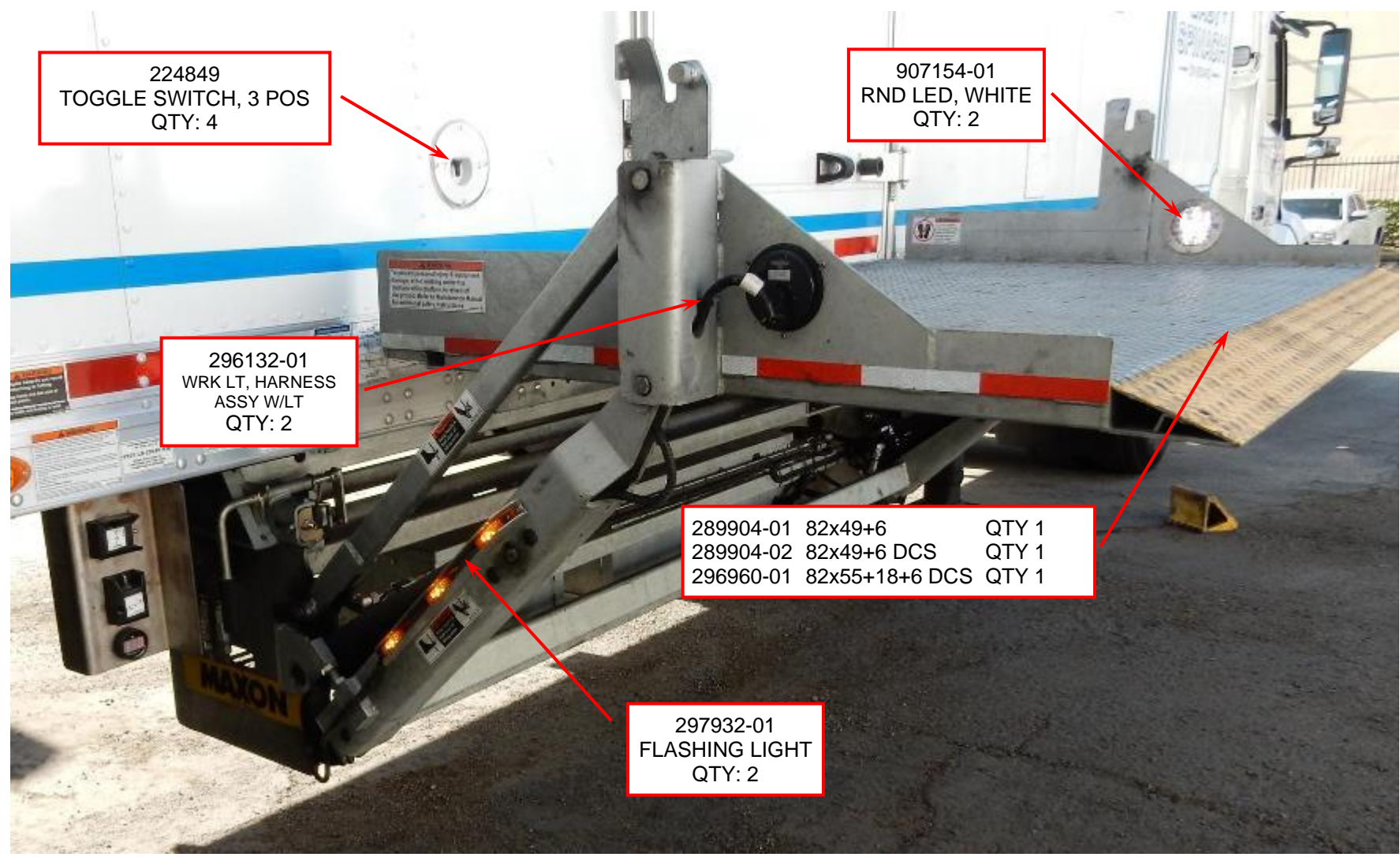


Jump 12-volt power from the 150 A circuit breaker to terminal block posts in battery box as shown in the chart below.

Function	Terminals to jump with +12V	
UP	2	3
DOWN	2	6
IN	3	5
OUT	3	4



## Parts: Platform Lights and Wall Switch



224849  
TOGGLE SWITCH, 3 POS  
QTY: 4

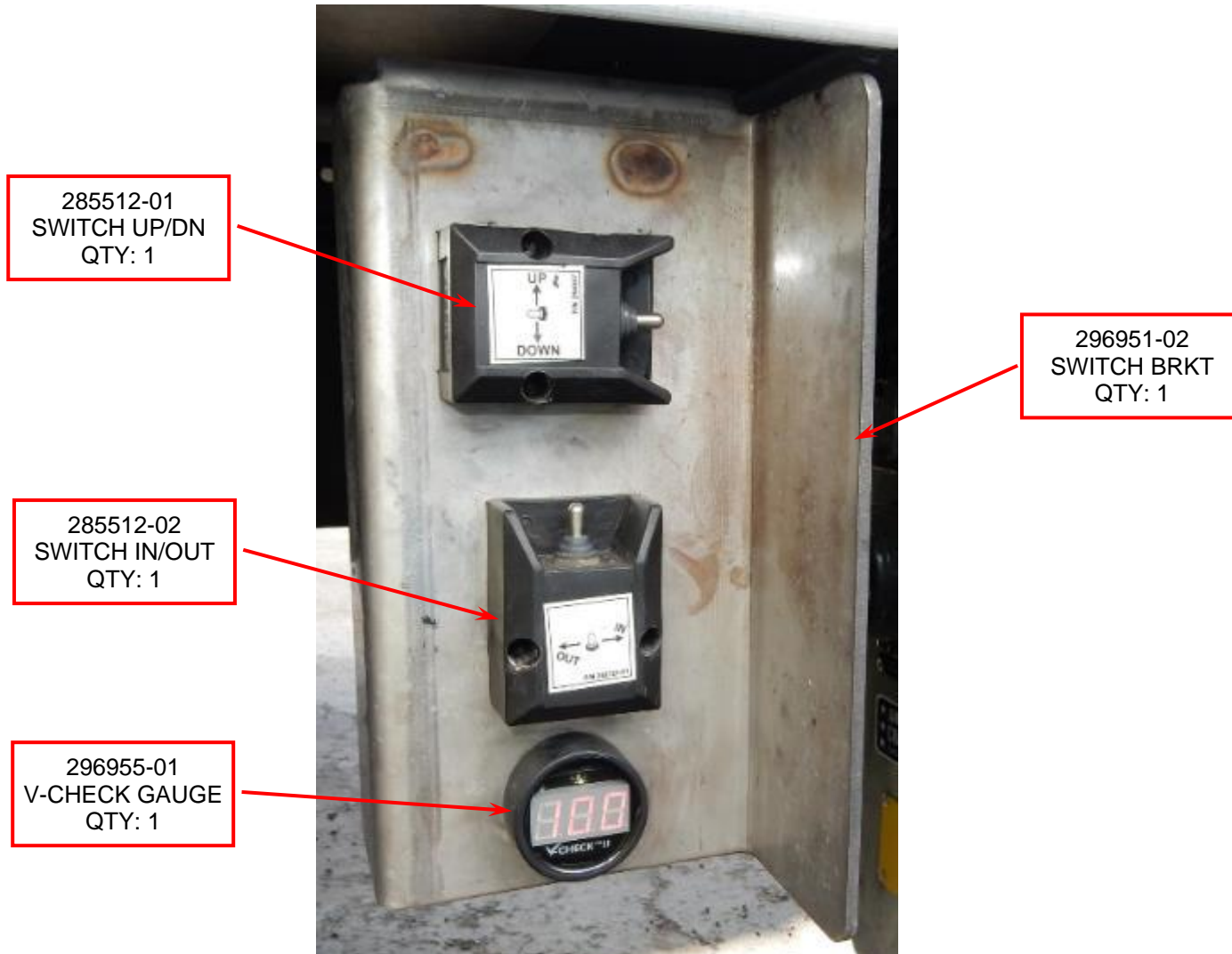
907154-01  
RND LED, WHITE  
QTY: 2

296132-01  
WRK LT, HARNESS  
ASSY W/LT  
QTY: 2

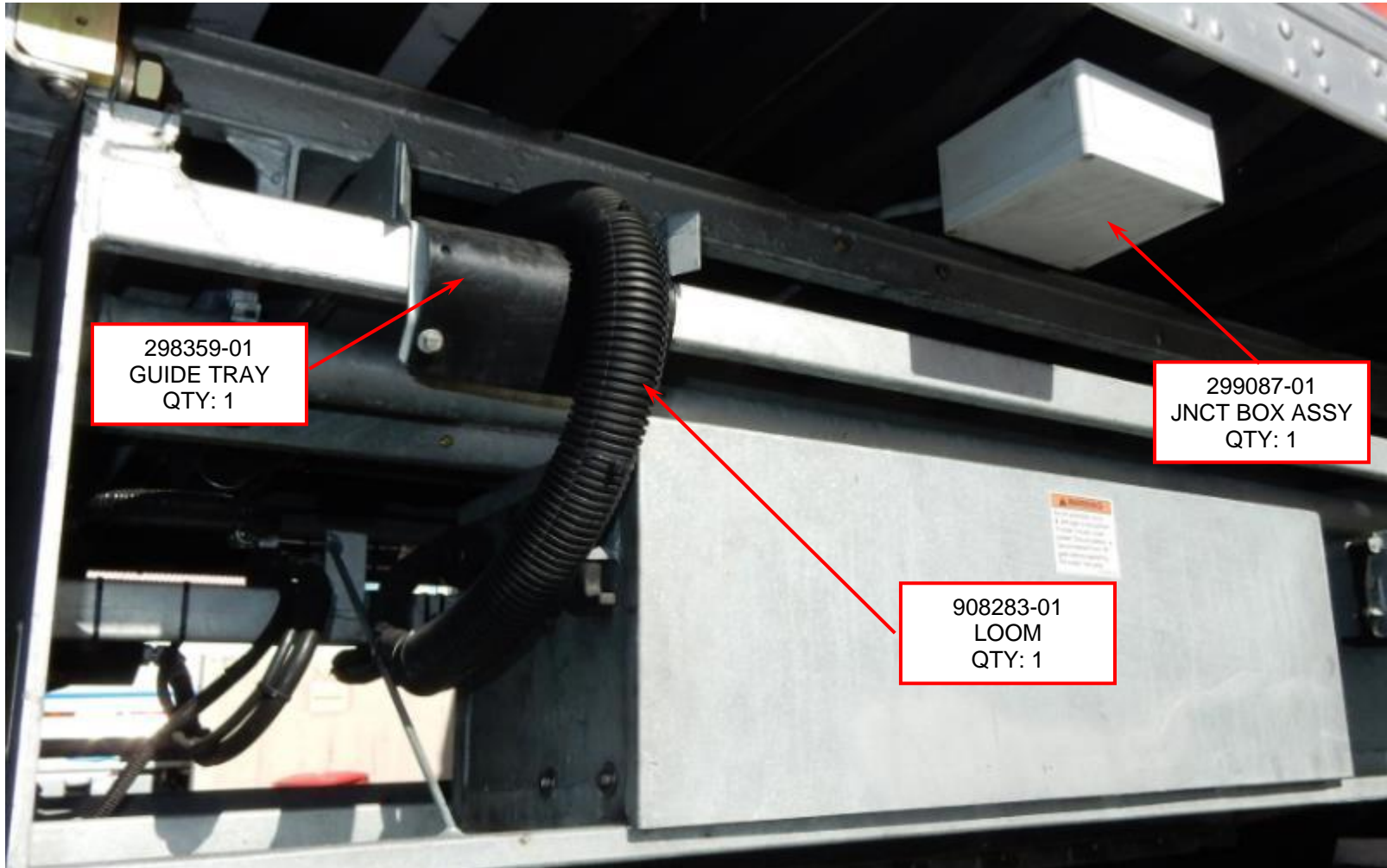
297932-01  
FLASHING LIGHT  
QTY: 2



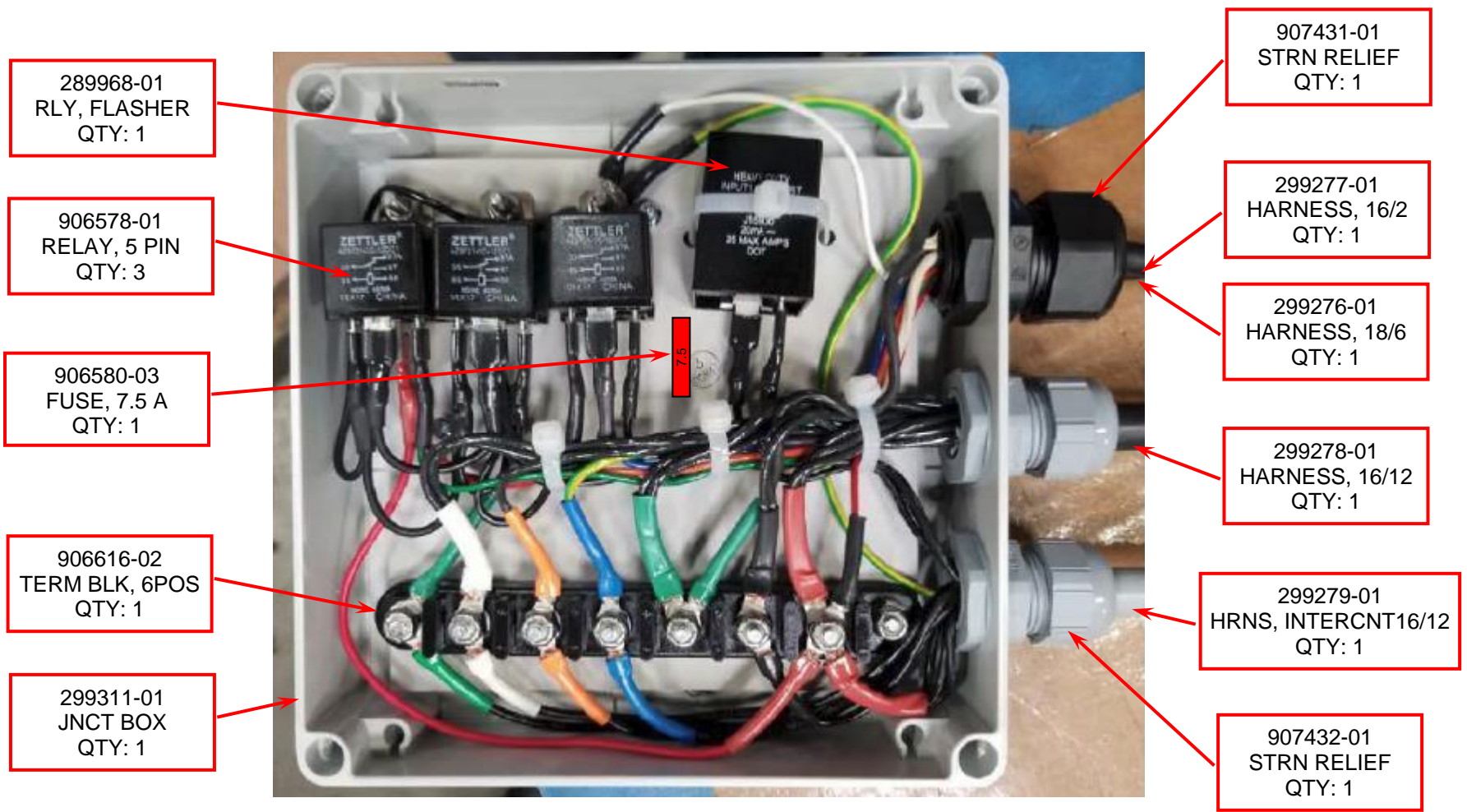
## Parts: Main Switch and V-Check



## Parts: Harness Loom & Junction Box Assembly



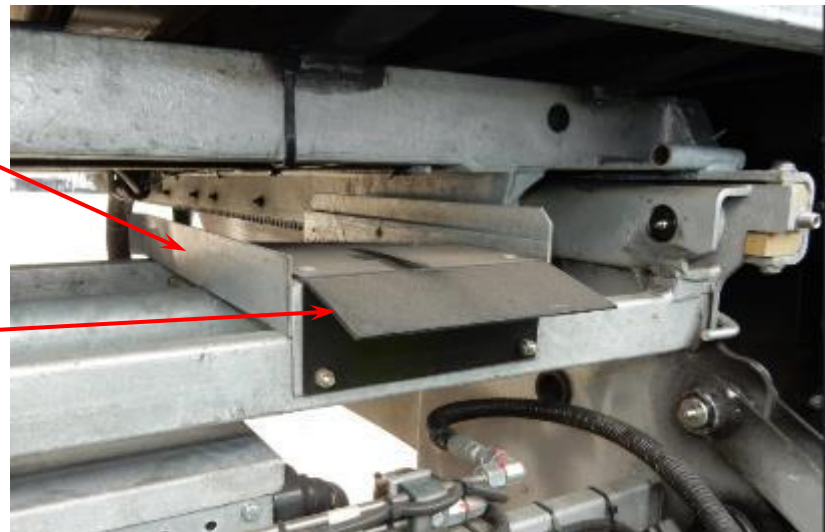
### Parts: Junction Box



## Parts: Harness Guide & Holder

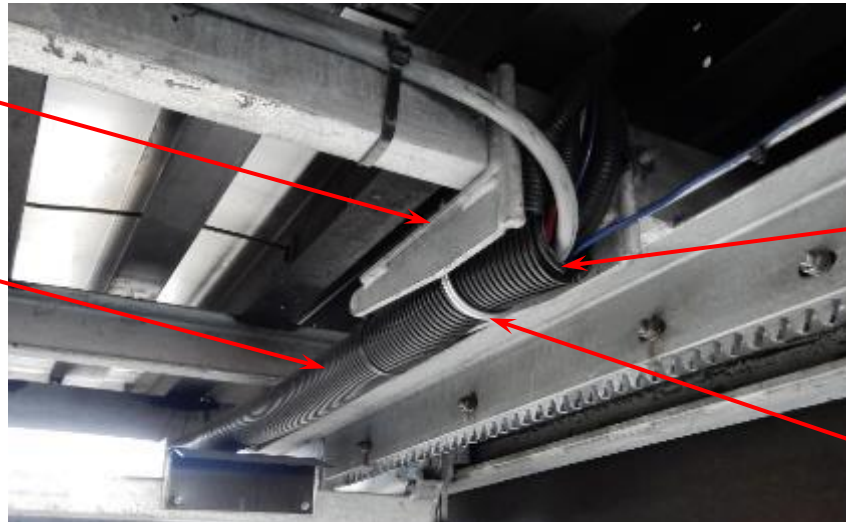
298359-01  
GUIDE TRAY  
QTY: 1

299086-01  
DEFLECT PLATE  
QTY: 1



298372-01  
HARNESS BRKT  
QTY: 1

908283-01  
LOOM  
QTY: 1



908285-01  
RUBBER HOSE  
QTY: 1

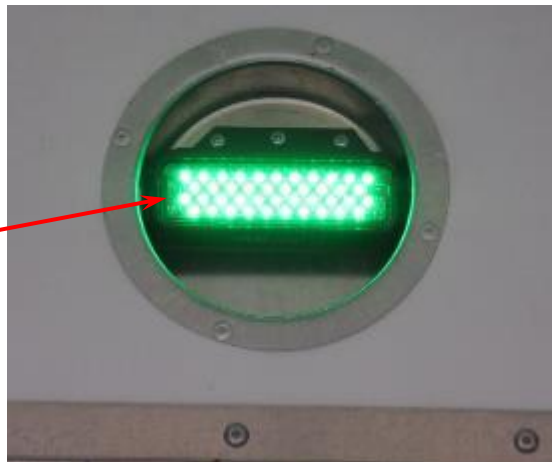
908286-01  
U-BOLT  
QTY: 1



## Parts: Inside Safety Light & Proximity Switch



906556-01  
PROX SENSOR  
QTY: 1



297053-01  
GRN LED LIGHT  
QTY: 1

## Parts: Stored Warning Lights at Trailer front

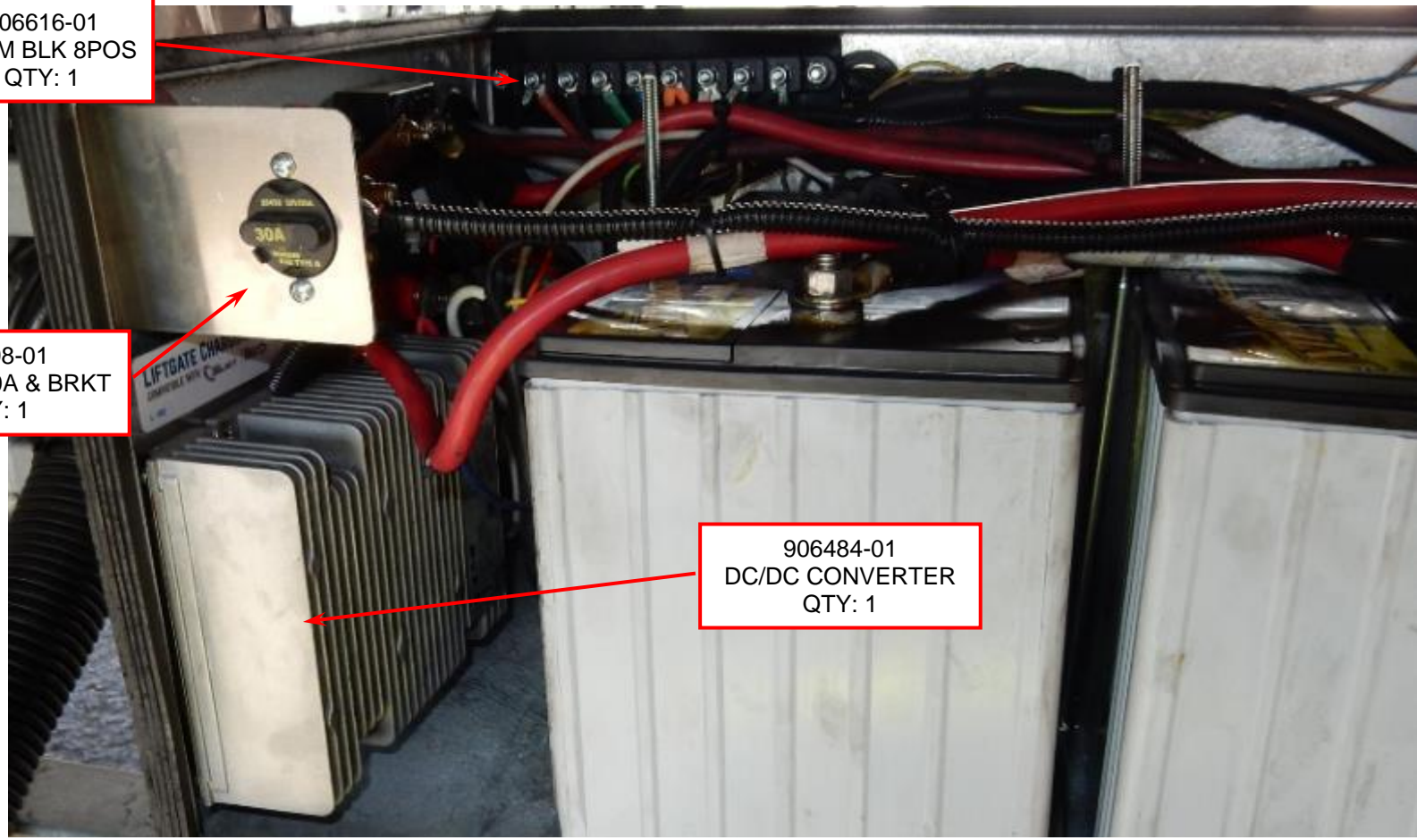


## Parts: Battery Box and Charging

906616-01  
TERM BLK 8POS  
QTY: 1

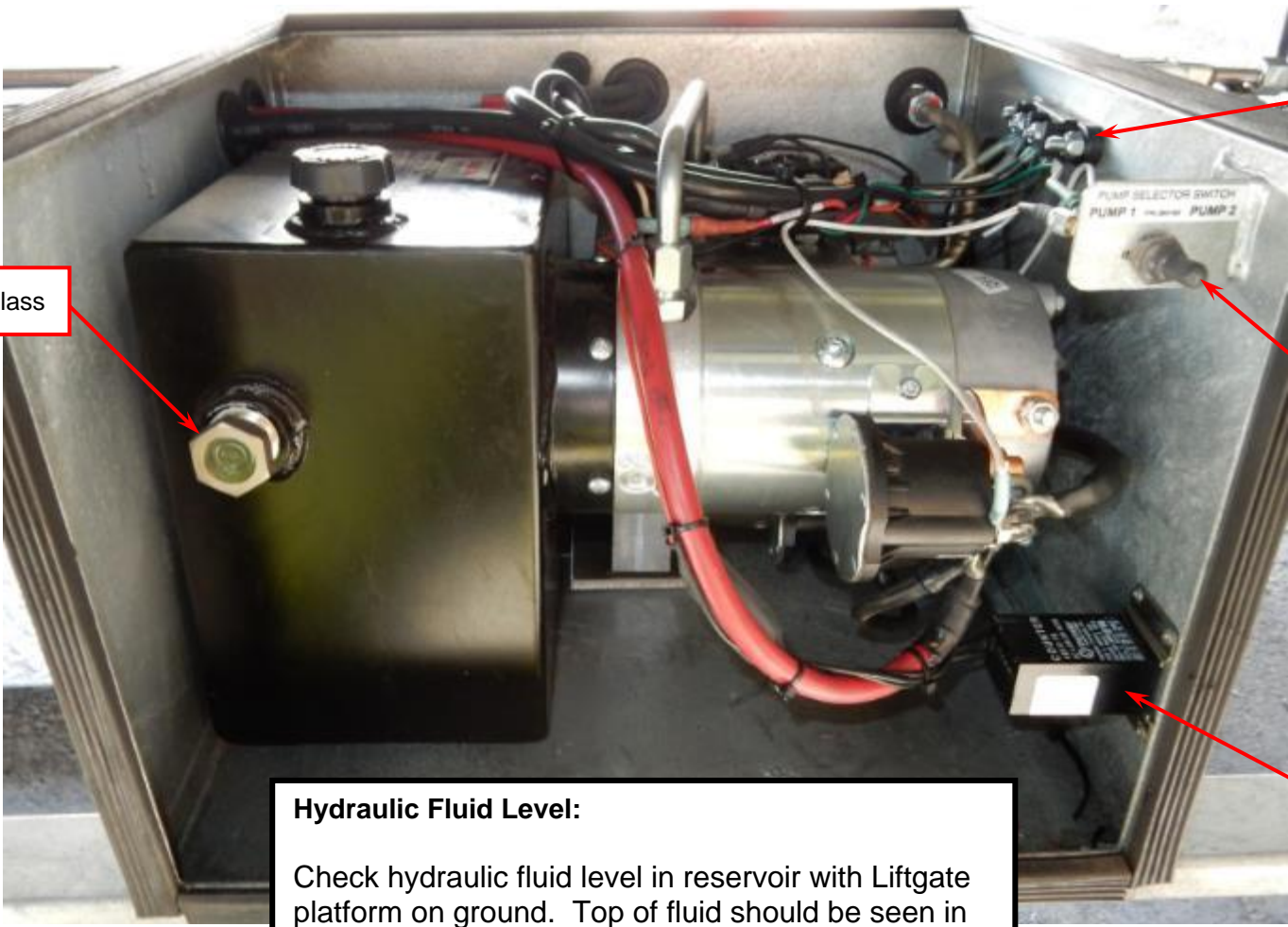
286198-01  
CIR BKR 30A & BRKT  
QTY: 1

906484-01  
DC/DC CONVERTER  
QTY: 1





### Parts: Pump Box, Counter, Selector Switch



Sight glass

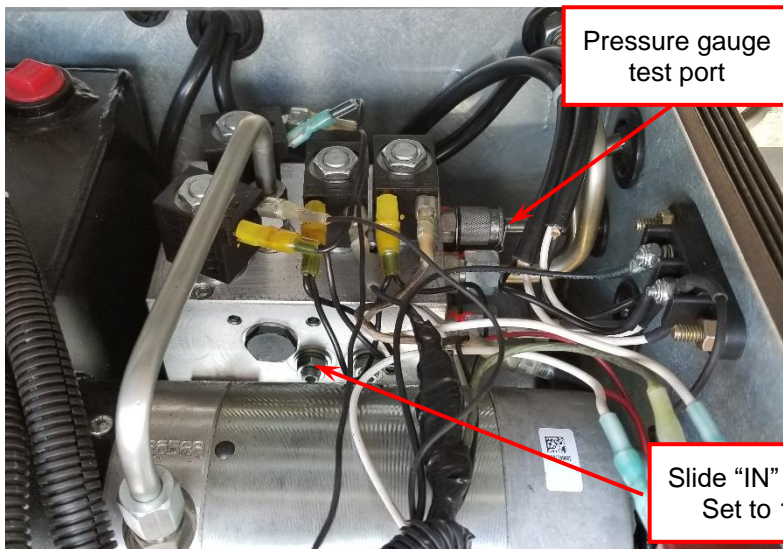
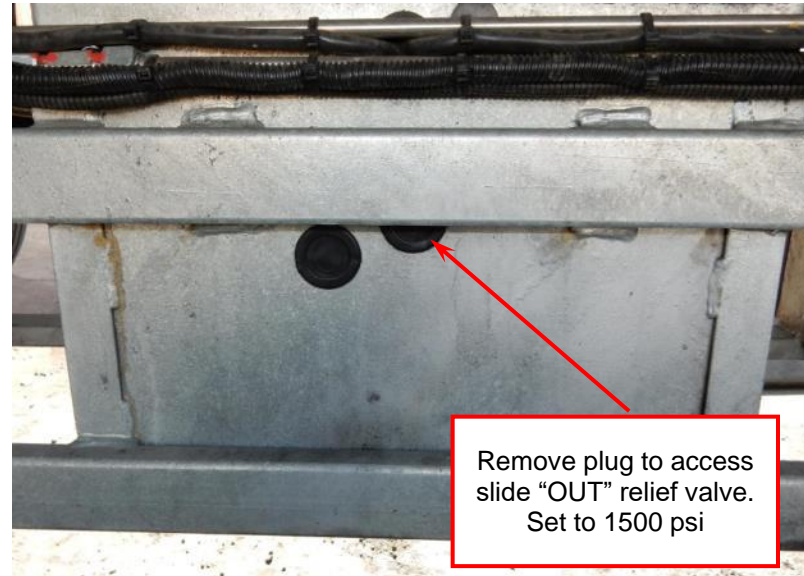
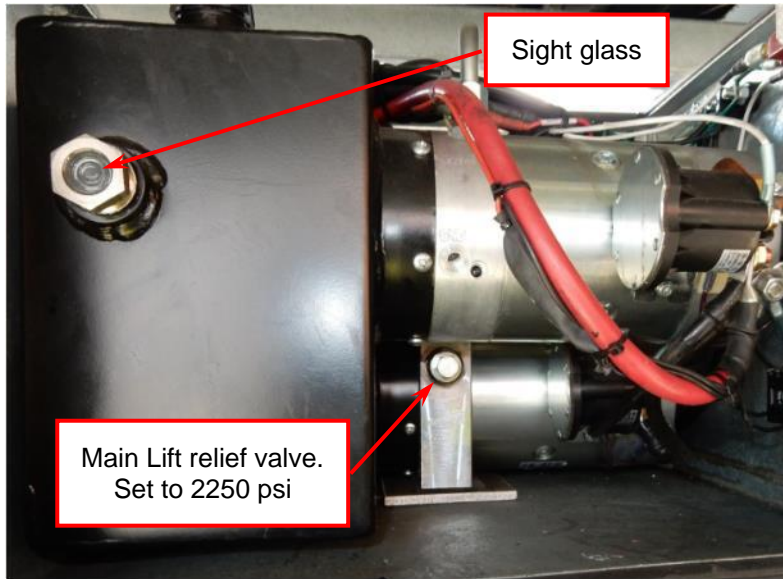
907279-01  
TERM BLK 2POS  
QTY: 1

906577-01  
SWITCH 2POS  
QTY: 1

280591-02  
COUNTER  
QTY: 1

**Hydraulic Fluid Level:**  
Check hydraulic fluid level in reservoir with Liftgate platform on ground. Top of fluid should be seen in the sight glass.  
  
Note: Liftgate is supplied with Exxon Univis HVI 13 from the factory. See oil table in Maintenance manual for compatible ISO 15 hydraulic oils.

## Hydraulics: Pressure Relief Valve Location and Setting



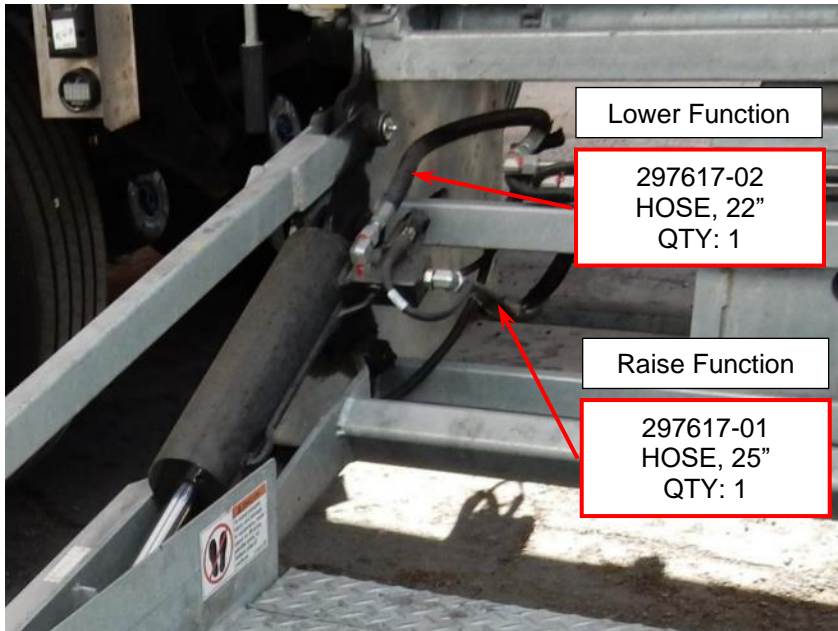
**Hydraulic Fluid Level:**

Check hydraulic fluid level in reservoir with Liftgate platform on ground. Top of fluid should be seen in the sight glass.

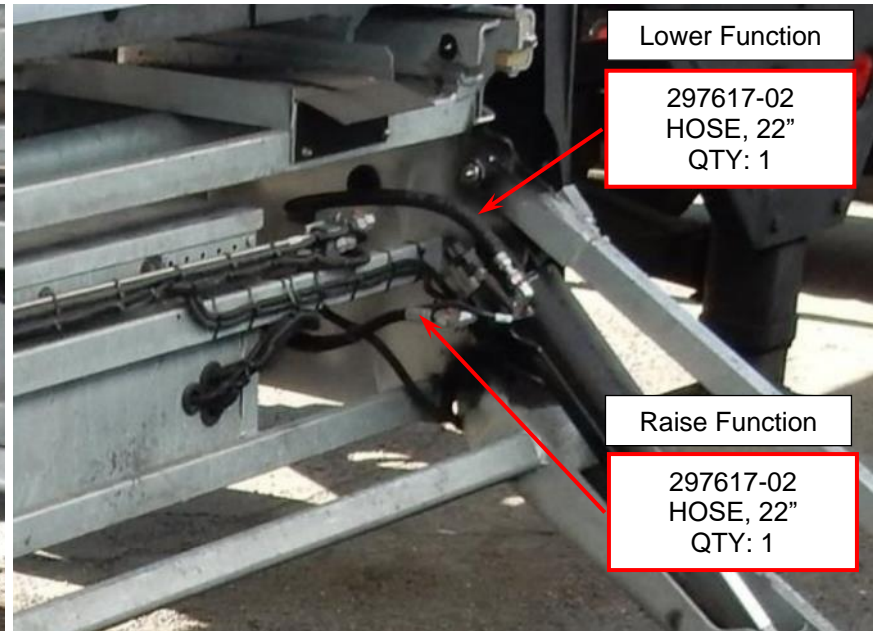
Note: Liftgate is supplied with Exxon Unavis HVI 13 from the factory. See oil table in Maintenance manual for compatible ISO 15 hydraulic oils.

## Parts: Hydraulic Hoses

Left Hand side (Rear of trailer)



Right Hand side (Front of trailer)







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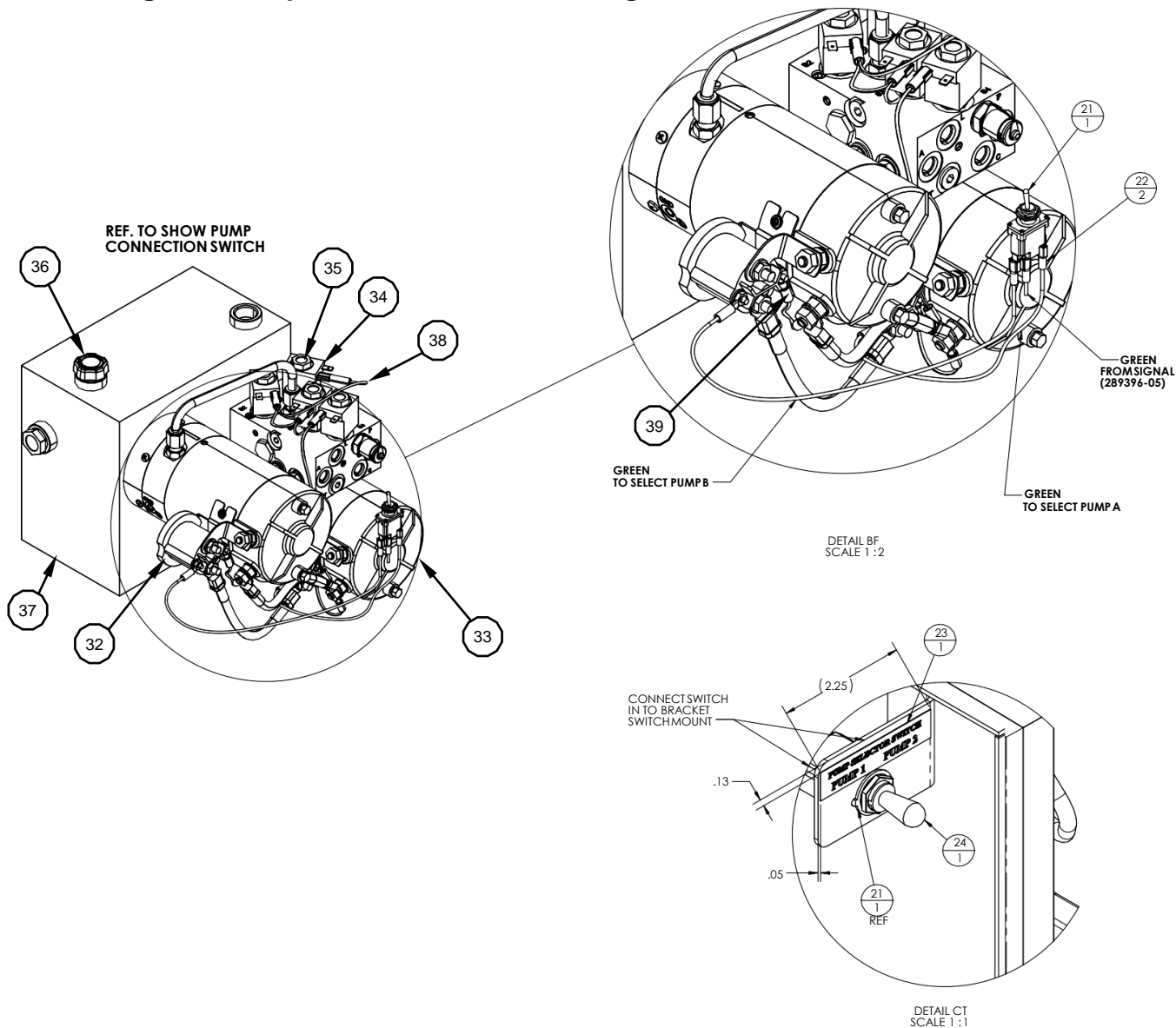
1	297059-01	ASSY, WIRE BATTERY INDICATOR	31
4	904000-1	RIVET, BLIND, DOME HEAD Ø.125 X .390LG	30
1	280591-02	CYCLE COUNTER ASSY	29
1	296132-01	RA, P/F WORKING LIGHT	28
1	289996-01	RA, FLASHING LIGHT	27
1	289966-01	RA, INSIDE SAFETY LIGHT KIT	26
4.0FT	907011	LOOM, SPLIT-NYLON, .251D.	25
1	250876	BOOT, RUBBER SEAL SWITCH	24
1	264183	DECAL, PUMP SELECTOR SWITCH	23
2	289501-01	TOGGLE SWITCH 16 GA 15"	22
1	906577-01	TOGGLE SWITCH, SP, 2 POSN	21
1.33FT	207642	SPLIT LOOM 1" BLACK	20
1	282895-01	JUMPER, GROUND, GPTLR	19
1	288211-02	CABLE ASSY, 2GA, R., .38/.38RING, 37"	18
2	903439-01	WASHER, LOCK, INTL T., .79 ID	17
1	288210-03	CABLE ASSY, 2GA., .38/.38RING, 107"	16
1	903107-02	NUT, HEX .375-16 UNC SS	15
1	289967-01	RA, TRAILER FRONT LIGHT	14
31	EH13176	CABLE TIE MOUNTING BASE	13
1	286133-01	LIMIT SWITCH ASSY, NORMALLY CLOSED	12
31	205780	TIE, PLASTIC 7" (50 LB)	11
1	287472-01	CABLE, JUMPER	10
1	289397-03	CABLE, EXT CNTRL ASSY, 82"	9
1	289396-05	CABLE, EXT CNTRL ASSY, W/DP,P/D	8
1	268274-06	CABLE, LEFT SIDE 140" LG	7
1	268274-05	CABLE, RIGHT SIDE 73" LG, 16GA	6
1	285506-08	CABLE ASSY, 2GA, R., .31/.38RING, 70"	5
1	268226-13	CABLE ASSY, 2GA., .31/.38RING, 57.75"	4
1	268226-07	CABLE ASSY, 2GA., .31/.38RING, 18"	3
1	907297-01	SPIRAL BUNDLING WRAP, 76" LG	2
1	906559-01	FITTING, STRAIGHT CONNECTOR	1
QTY	PART NUMBER	NOMENCLATURE OR DESCRIPTION	ITEM

### BOM FOR 289385-11

Qty	Part Number	Description	Item
2	296342	GROUND WIRE, STARTER SOLENOID	39
1	296277	GROUND WIRE, VALVES	38
1	289667	RESEVOIR, 9.25 X 10.5 X 6	37
1	287281	BREATHER CAP	36
4	290126	CARTRIDGE ONLY, 3W/2P, GPS-LR	35
4	290125	COIL, 10VDC, #8, TWO 1/4 MALE TAB	34
2	269334	MOTOR, 12V DC	33
2	269339	STARTER SOLENOID	32

### BOM FOR 296275-01 (DUAL PUMP ASSY)

## Parts Diagram: Pump & Selector Switch Wiring





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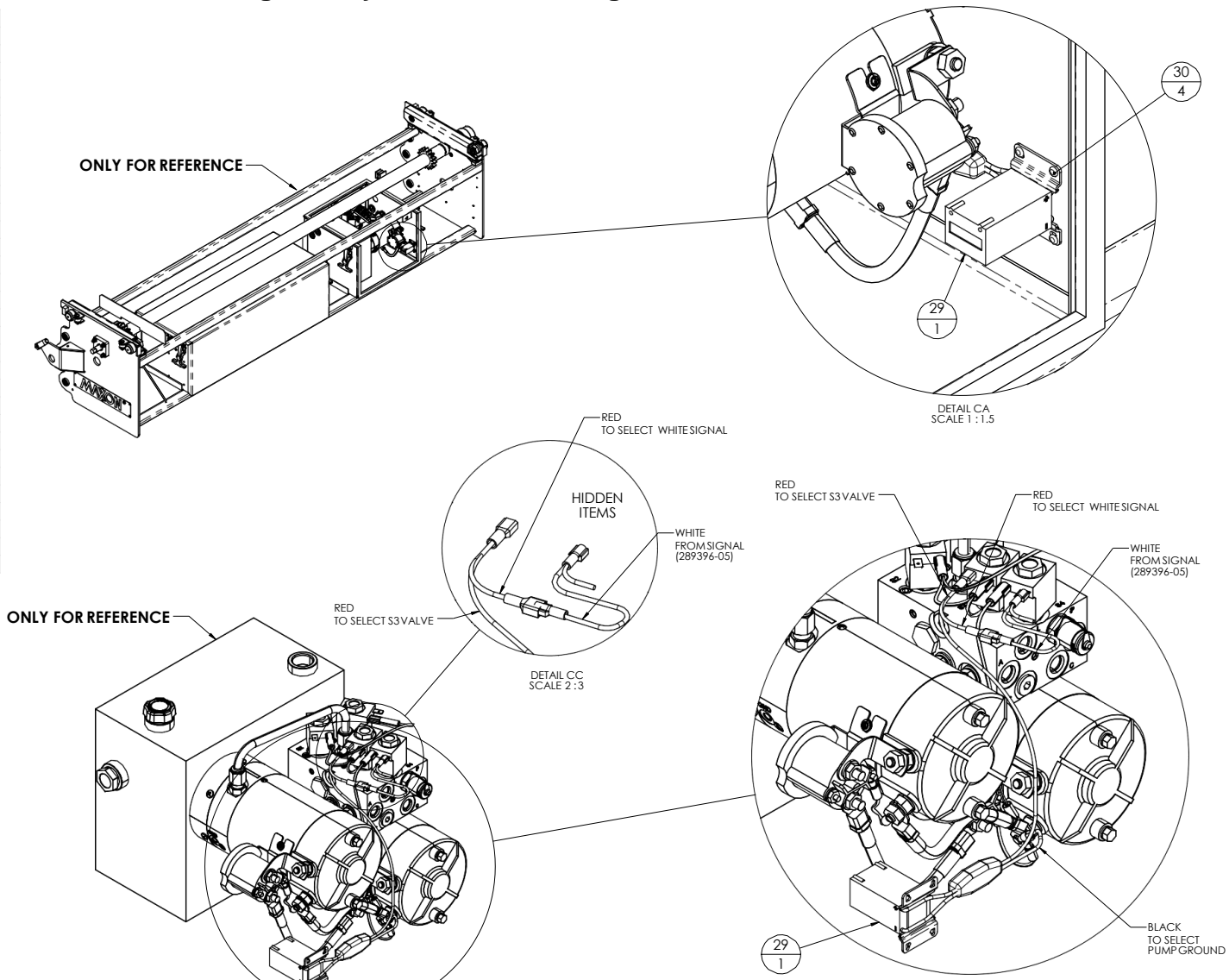
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### Parts Diagram: Cycle Counter Wiring

1	297059-01	ASSY, WIRE BATTERY INDICATOR	31
4	904000-1	RIVET, BLIND, DOME HEAD Ø.125 X .390LG	30
1	280591-02	CYCLE COUNTER ASSY	29
1	296132-01	RA, P/F WORKING LIGHT	28
1	289996-01	RA, FLASHING LIGHT	27
1	289966-01	RA, INSIDE SAFETY LIGHT KIT	26
4.0FT	907011	LOOM, SPLIT-NYLON, .25I.D.	25
1	250876	BOOT, RUBBER SEAL SWITCH	24
1	264183	DECAL, PUMP SELECTOR SWITCH	23
2	289501-01	TOGGLE SWITCH 1 6 GA 15"	22
1	906577-01	TOGGLE SWITCH, SP, 2 POSN	21
1.33FT	207642	SPLIT LOOM 1" BLACK	20
1	282895-01	JUMPER, GROUND, GPTLR	19
1	288211-02	CABLE ASSY, 2GA., .38/.38RING, 37"	18
2	903439-01	WASHER, LOCK, INTL I, .79 ID	17
1	288210-03	CABLE ASSY, 2GA., .38/.38RING, 107"	16
1	903107-02	NUT, HEX, .375-16 UNC SS	15
1	289967-01	RA, TRAILER FRONT LIGHT	14
31	EH13176	CABLE TIE MOUNTING BASE	13
1	286133-01	LIMIT SWITHC ASSY, NORMALLY CLOSED	12
31	205780	TIE, PLASTIC 7" (50 LB)	11
1	287472-01	CABLE, JUMPER	10
1	289397-03	CABLE, EXT CNTRL ASSY, 82"	9
1	289396-05	CABLE, EXT CNTRL ASSY, W/DP,P/D	8
1	268274-06	CABLE, LEFT SIDE 140" LG	7
1	268274-05	CABLE, RIGHT SIDE 73" LG, 16GA	6
1	285506-08	CABLE ASSY, 2GA., .31/.38RING, 70"	5
1	268226-13	CABLE ASSY, 2GA., .31/.38RING, 57.75"	4
1	268226-07	CABLE ASSY, 2GA., .31/.38RING, 18"	3
1	907297-01	SPIRAL BUNDLING WRAP, 7/6 LG	2
1	906559-01	FITTING, STRAIGHT CONNECTOR	1
QTY	PART NUMBER	NOMENCLATURE OR DESCRIPTION	ITEM

BOM FOR 289385-11



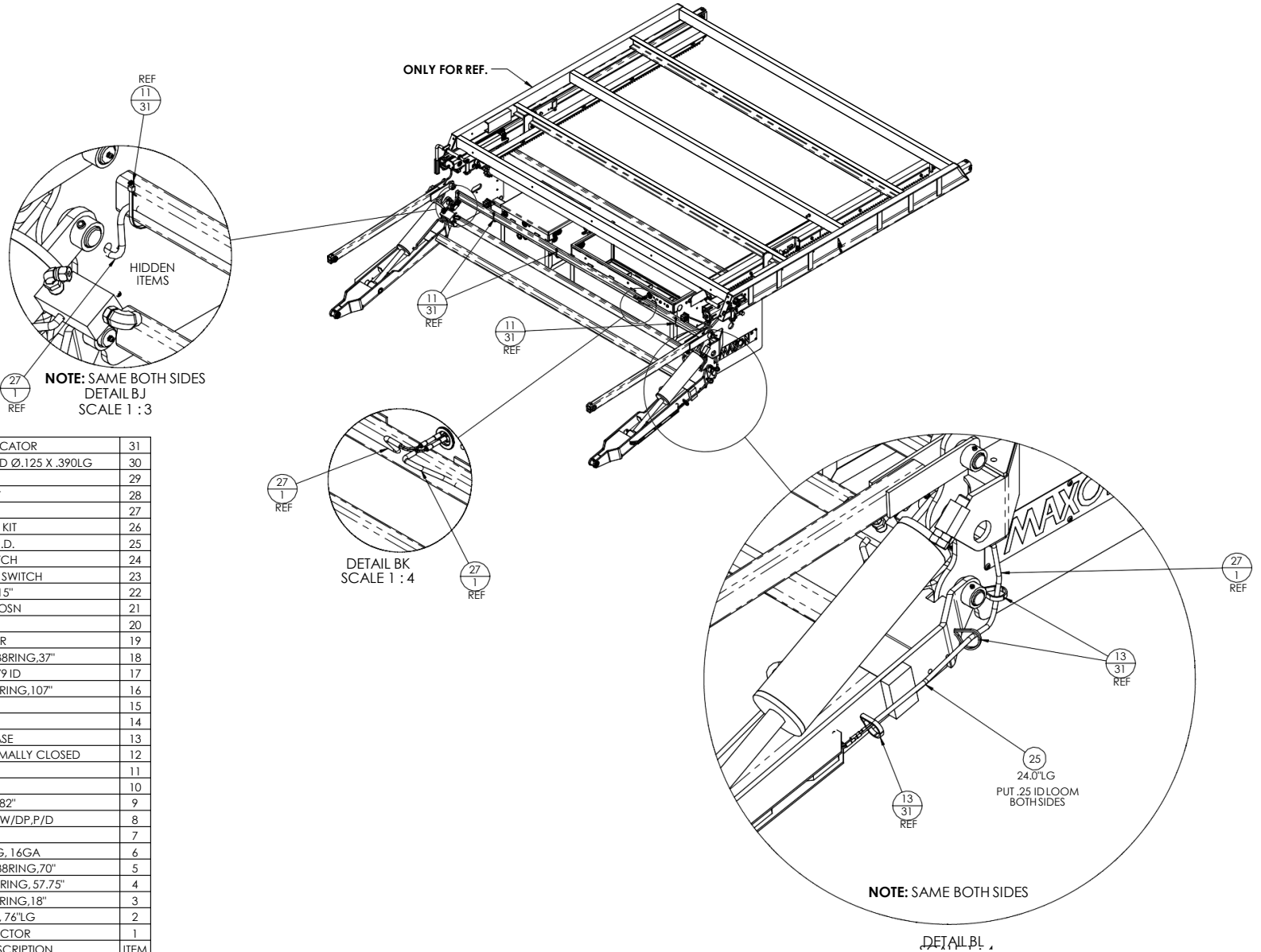


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## Parts Diagram: Lift Arm Flashing Light Wiring



1	297059-01	ASSY, WIRE BATTERY INDICATOR	31
4	904000-1	RIVET, BLIND, DOME HEAD Ø.125 X .390LG	30
1	280591-02	CYCLE COUNTER ASSY	29
1	296132-01	RA, P/F WORKING LIGHT	28
1	289996-01	RA, FLASHING LIGHT	27
1	289966-01	RA, INSIDE SAFETY LIGHT KIT	26
4.0FT	907011	LOOM, SPLIT-NYLON, .25I.D.	25
1	250876	BOOT, RUBBER SEAL SWITCH	24
1	264183	DECAL, PUMP SELECTOR SWITCH	23
2	289501-01	TOGGLE SWITCH 16 GA 15"	22
1	906577-01	TOGGLE SWITCH, SP, 2 POSN	21
1.33FT	207642	SPLIT LOOM 1" BLACK	20
1	282895-01	JUMPER, GROUND, GPTLR	19
1	288211-02	CABLE ASSY, 2GA., .38/.38RING, 37"	18
2	903439-01	WASHER, LOCK, INTLT., .79 ID	17
1	288210-03	CABLE ASSY, 2GA., .38/.38RING, 107"	16
1	903107-02	NUT, HEX, .375-16 UNC SS	15
1	289967-01	RA, TRAILER FRONT LIGHT	14
31	EH13176	CABLE TIE MOUNTING BASE	13
1	286133-01	LIMIT SWITHC ASSY, NORMALLY CLOSED	12
31	205780	TIE, PLASTIC 7" (50 LB)	11
1	287472-01	CABLE, JUMPER	10
1	289397-03	CABLE, EXT CNTRL ASSY, .82"	9
1	289396-05	CABLE, EXT CNTRL ASSY, W/DP,P/D	8
1	268274-06	CABLE, LEFT SIDE 140" LG	7
1	268274-05	CABLE, RIGHT SIDE 73" LG, 16GA	6
1	285506-08	CABLE ASSY, 2GA., .31/.38RING, 70"	5
1	268226-13	CABLE ASSY, 2GA., .31/.38RING, 57.75"	4
1	268226-07	CABLE ASSY, 2GA., .31/.38RING, 18"	3
1	907297-01	SPIRAL BUNDLING WRAP, 76" LG	2
1	906559-01	FITTING, STRAIGHT CONNECTOR	1
QTY	PART NUMBER	NOMENCLATURE OR DESCRIPTION	ITEM

BOM FOR 289385-11



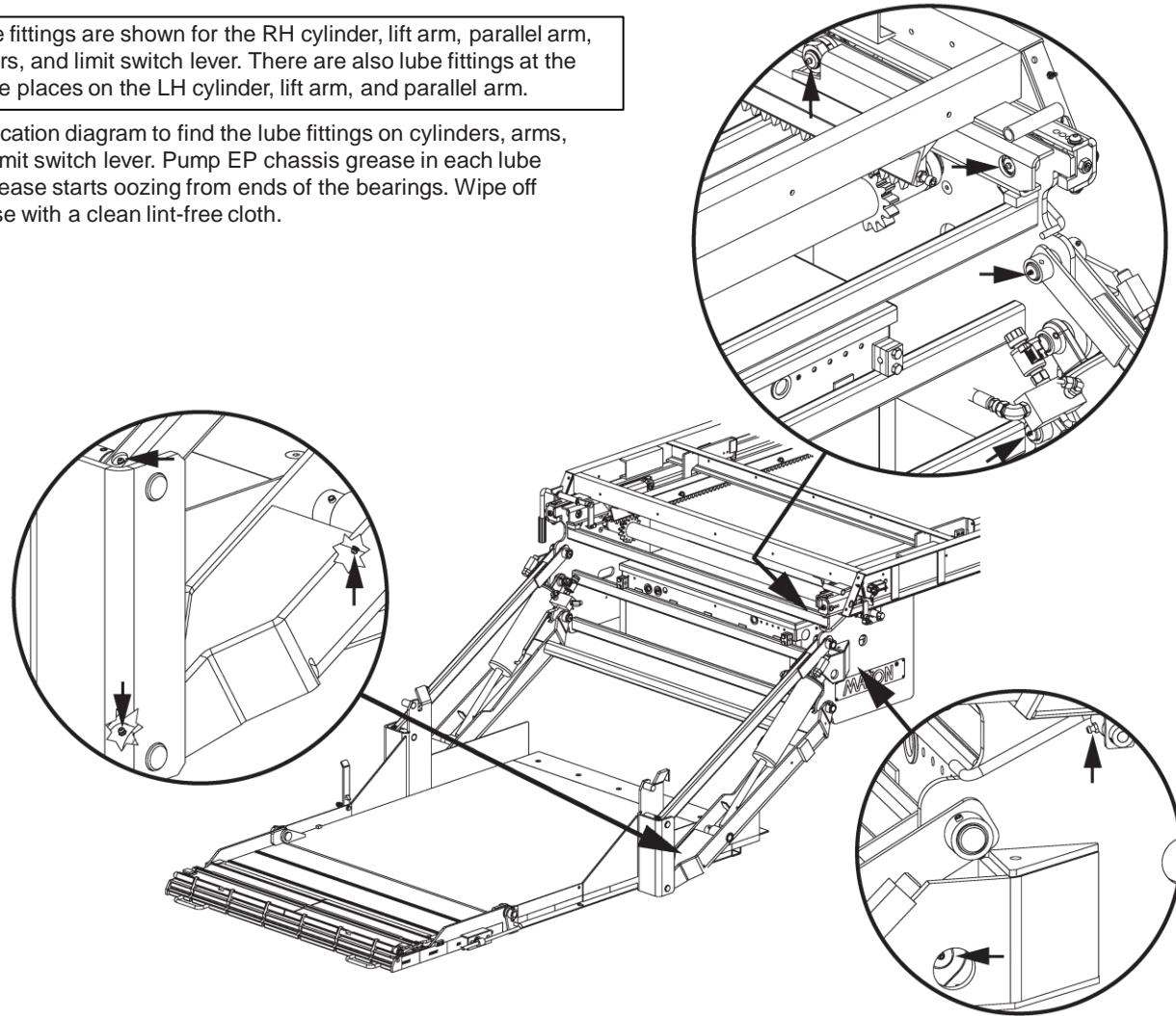


## Lubrication Diagram




Grease the points shown below Quarterly or every 1250 cycles (whichever occurs first)

**NOTE:** Lube fittings are shown for the RH cylinder, lift arm, parallel arm, rollers, and limit switch lever. There are also lube fittings at the same places on the LH cylinder, lift arm, and parallel arm.

Refer to lubrication diagram to find the lube fittings on cylinders, arms, rollers, and limit switch lever. Pump EP chassis grease in each lube fitting until grease starts oozing from ends of the bearings. Wipe off excess grease with a clean lint-free cloth.


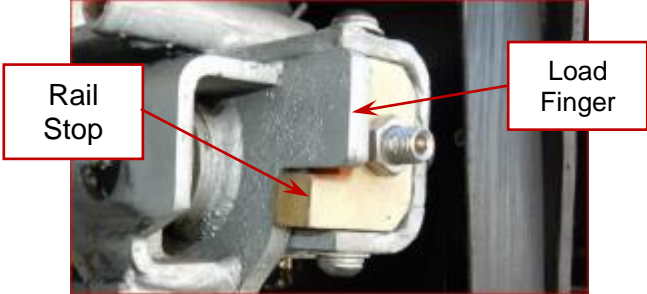


### Troubleshooting Chart

Problem	Possible Cause	Correction
Platform will not raise, lower or move in & out and motor will not run.	1. Power shut off switch in "OFF" position.	Set power shut off switch to "1+2" position. 
	2. 150 A Circuit Breaker tripped.	Push 150 A circuit breaker button to reset. 
	3. Battery voltage low.	Tighten power and ground connections. Charge batteries and check charging system.
	4. Motor solenoid not working.	Set pump selector switch to other pump. 
	5. Blown fuse on control circuit.	Check wall switches for short circuit. Tighten connections at switch and protect switch terminals. Wall switches can be spaced out with 1/4" spacer if needed. Replace 15A ATC fuse in battery box, #1 position on terminal block.


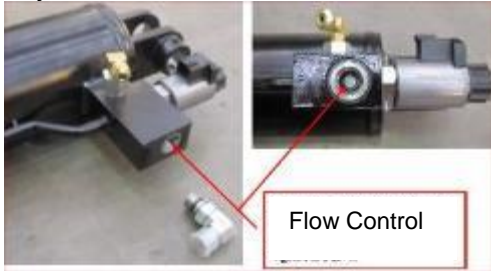
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### Troubleshooting Chart

Problem	Possible Cause	Correction
Platform will only lower, motor runs.	Limit switch lever / limit switch stuck.	Clear obstruction blocking lever/limit switch movement. Grease lever hinge point. 
Platform not going in or out, motor runs.	1. Battery voltage low. Solenoids not activating.	Tighten power and ground connections. Charge batteries and check charging system. Battery voltage should be > 12.2 V.
	2. S1 (in) valve or S2 (out) valve not shifting.	Check electrical connections at valve. Remove and clean valve if needed.
	3. Low pump pressure.	Adjust in/out pressure relief valve to 1500 psi.
	4. Damaged/worn roller bearing.	With platform at the "out" position check if Load Finger is not resting Rail Stop. This is sign roller bearing wear.  Replace rollers.
Platform not going up or down, motor runs.	1. Battery voltage low. Solenoids not activating.	Tighten power and ground connections. Charge batteries and check charging system. Battery voltage should be > 12.2 V.

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### Troubleshooting Chart

Problem	Possible Cause	Correction
Platform not going up or down, motor runs. - Continued	2. S1 (in) valve or S2 (out) valve not shifting.	<p>Check voltage at 2 terminal block in pump box. Should be &gt;10 V.</p>  <p>Check electrical connections at valve. Remove and clean valves if needed.</p>
	3. Cylinder flow control valves blocking port.	<p>Tighten cylinder flow control valve to 5 ft-lb.</p> 
Red/Green stow lights at from of trailer not working.	1. Tractor 7-way plug not connected to trailer.	Connect 7-way plug.
	2. No power to 7-way aux pin	Check tractor 7-way fuse. Replace if needed.
	3. Proximity sensor out of adjustment.	Check metal target on platform is within 3/8" of sensor with platform stored.
	4. Proximity sensor not working.	Check that proximity sensor is getting >11.5V. Proximity sensor has a LED lit when it is active. Place metal within 3/8" sensor. If LED goes out sensor is working. Replace sensor if needed.
Flashing lights and work lights on platform not working.	1. Wiring short circuit. Possible damage to light wiring.	Repair damaged wiring and replace 7 A fuse in junction box.
	2. Proximity sensor near storage latch not working.	Check that proximity sensor is getting >11.5V. Proximity sensor has a LED lit when it is active. Place metal within 3/8" sensor. If LED goes out sensor is working. Replace sensor if needed.

**Service Parts Kit**

On Lift	Part #	Desc	Qty
*	269339	SWITCH, SOL ACT MTR ST, 12 VDC	1
*	285512-02	SWITCH & CABLE ASSY MOL 6POSN, IN-OUT	1
*	282721-01	DECAL, IN & OUT SWITCH	1
	285512-01	SW&CBL ASSY MOLDED 6POSN	1
	264507	DECAL UP & DOWN	1
*	906831-01	LOGIC VALVE, 12V	1
	906580-01	FUSE, STD, 10A ATC	1
	906580-03	FUSE, STD, 7.5A ATC	1
	906580-02	FUSE, STD, 15A ATC	1
*	297617-02	HOSE ASSY, .38, SAE#6, 22" LG	1
*	297617-01	HOSE ASSY, .38, SAE#6, 25" LG	1
	906578-01	RELAY 12VDC 5 PIN	1
	289968-01	FLASHING LED RELAY	1
	286133-01	LIMIT SWITCH ASSY, NORMALLY CLOSED	1
	906556-01	SENSOR PROX 18M, NO PNP	1
*	290126	CARTRIDGE ONLY, 3W/2P, GPS-LR	1
*	290125	COIL, 10VDC, #8, TWO 1/4 MALE TAB	1
*	224849	TOGGLE SWITCH, DP, 3 POSN	1