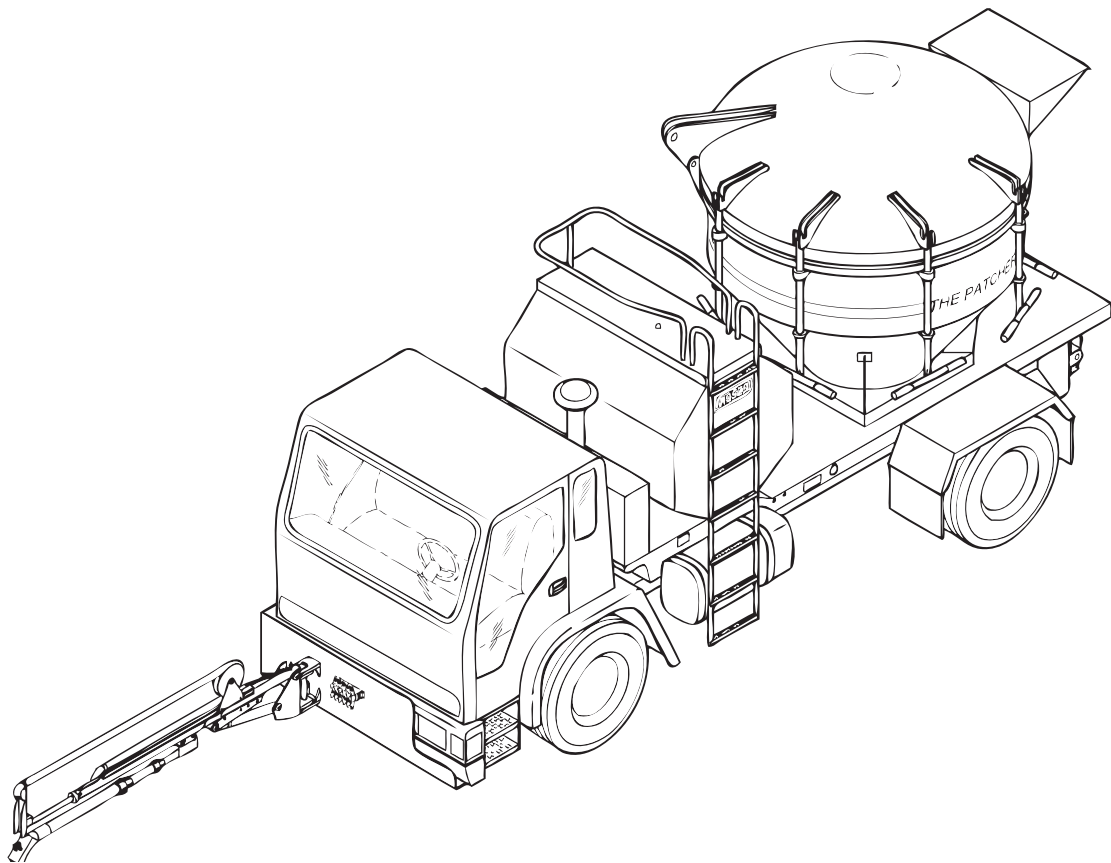


ROSCO

A LeBoey Company

OPERATIONS, SERVICE AND PARTS MANUAL ADDENDUM



RA-300S PATCHER

Manual No. 37679-01

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This manual has been most recently updated 03/10 to apply to serial number and above:

PDF file last modified on: 03/24/10

Thank you for purchasing the Rosco Model RA-300S Patcher. We wish you many years of safe and efficient operation of your patcher.

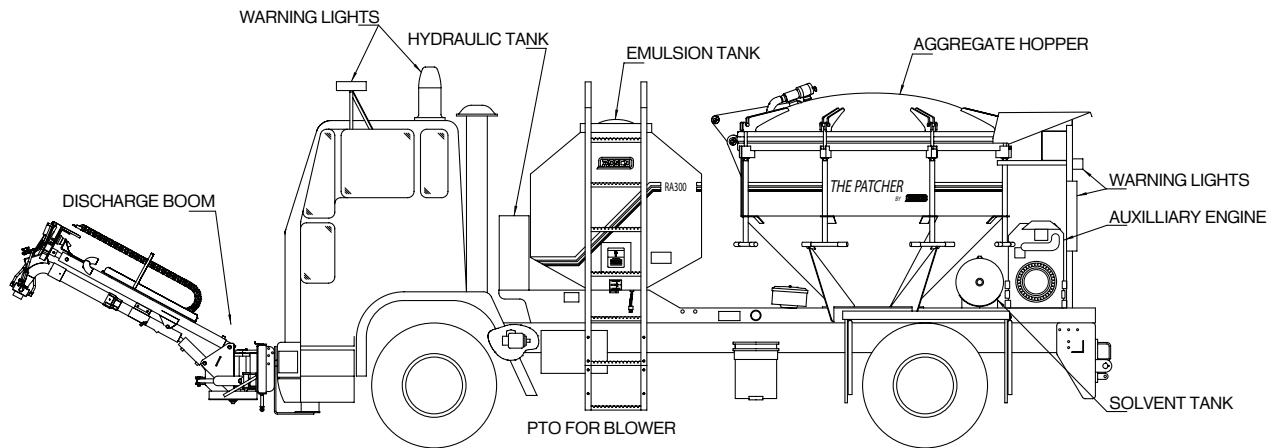
READ THIS MANUAL PRIOR TO OPERATING the patcher. This manual is an important part of the patcher and should be kept with the patcher at all times in the dedicated storage container on the patcher. Even though you may be familiar with similar equipment, you **MUST** read and understand this manual before operating this patcher. Reading the manual will help you and others avoid injury and help prevent any damage to the patcher. If this manual becomes lost or damaged, contact your authorized LeeBoy or Rosco Dealer immediately to order a replacement.

This manual should be used with the RA-300 Patcher manual and all related supplemental books, engine and transmission manuals, and parts books. Related Service Bulletins should be reviewed to provide information regarding some of the recent changes.

This manual is intended as an addendum guide for the safe and efficient use of the patcher. This manual covers the updated procedures for proper operation and maintenance of the patcher. This manual contains information that was available at the time of printing and is subject to change without notice.

This manual overviews the changes from the RA-300 Patcher model to the RA-300S. The main difference is the redesigned boom. These changes can be found on the following pages and include new images for the RA-300S Patcher, operational changes, and schematics.

If any questions arise concerning this publication or others, contact your local LeeBoy or Rosco Dealer for the latest available information.



Rosco RA-300S Patcher Overview

Figure 1-1

NOTE: Replaces Figure 5-A in RA-300 Patcher Manual.

NOTE: The following replaces pages 5-10 to 5-12 in RA-300 Patcher Manual.

Using the Controller

General

Your unit is equipped with a joystick styled controller. The instructions that follow will explain how the controller works and how to control flow of rock and emulsion. The relay panel for the controller is located behind the passenger seat of the truck. Be sure there is a secure connection between the controller and the relay panel.

Become familiar with your controller and the general working of the unit before attempting any patching work.

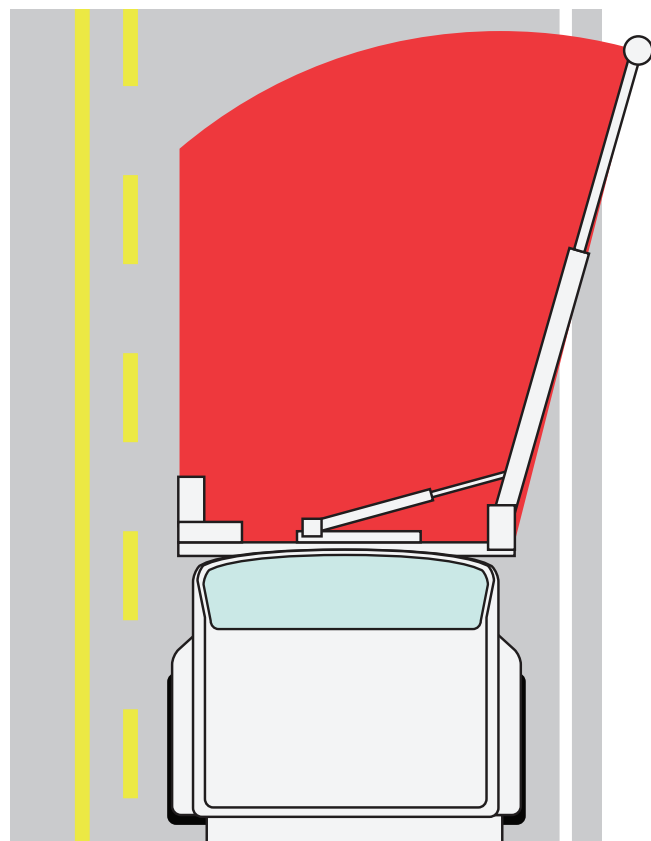
The Joystick Controller

The joystick (**Figure 1-3,D**) is mounted on a pedestal on the driver's right side. The controller uses rocker switches and a joystick to control the rock flow, the emulsion flow and the movement of the boom.

1. The hydraulic pump must be engaged to run all hydraulic functions of the RA-300. To start the pump, push the **Mode** button (**Figure 1-3, P**) on the Transmission console. A red light will appear on the Transmission console (**Figure 1-3, R**) and on the Gauge panel (**Figure 1-3, R**). To stop the the hydraulic functions, push the **Mode** button (**Figure 1-3, P**) again.
2. To start the blower push the **Blower 1/O** switch (**Figure 1-3, E**) to the "1" position. The speed of the blower is controlled by rotating the **Air** knob (**Figure 1-3, S**) on the Gauge panel. The blower is at maximum capacity with engine rpm at 1000. The blower will not put out any more air above 1000 rpm and the PTO will disengage at 1300 rpm. To stop the blower, push the **Blower 1/O** switch (**Figure 1-3, E**) to the "O" position.
3. The **Air Speed** switch (**Figure 1-3, H**) controls the mode operation of the blower. The turtle indicates the Patching Mode and the rabbit indicates the Blowout Mode. Air speed is controlled by the **Air** knob (**S**). Maximum blower speed is obtained in Blowout Mode.
4. The beacon is activated by pushing the **Beacon 1/O** switch (**Figure 1-3, F**) to the "1" position, and turned off by pushing the rocker switch to the "O" position.

5. The boom is controlled with two items. The **Joystick** (**Figure 1-3, D**) controls the motion of the boom from side to side and also the in and out telescoping of the boom. The **Boom Up/Down** switch (**Figure 1-3, C**) controls the up and down movement of the boom by repeated brief toggles in the desired direction.
6. The computer keeps the boom-extension within the working area and away from on-coming traffic by automatically retracting the boom. A manual override toggle switch is located on the side of the gauge panel.

WARNING Overriding the safety feature may be dangerous. Use extreme caution when extending boom when on-coming traffic is near. Do not extend boom where it could be hazardous to on-coming vehicles or persons. Personal injury or damage to property may occur.



Boom Working Area

Figure 1-2

7. The rock flow is controlled by two switches. The first switch is the **Rock On/Off** switch (**Figure 1-3, K**) which is located on the left side of the **Joystick** (**Figure 1-3, D**). This switch is activated by pressing and holding the switch UP to open the gate and start the rock flow. Press the switch DOWN and hold it to stop the flow and close the gate. A red light (**Figure 1-3, T**) indicates the rock gate is open.

The second control switch is the **Rock Flow +/-** switch (**Figure 1-3, G**) which will increase or decrease the amount of rock flow only when the gate is open. This switch is a momentary switch. Increase or decrease the amount of rock by pressing the switch briefly in the desired direction and then releasing.

When setting the rock flow, you should first close the gate by pressing DOWN and holding the **Rock On/Off** switch (**Figure 1-3, K**). Then press the **Rock Flow +/-** switch (**Figure 1-3, G**) to minus(-) to fully stop any rock flow. Now open the rock gate by pressing UP and holding the **Rock On/Off** switch (**Figure 1-3, K**). Press the **Rock Flow +/-** switch (**Figure 1-3, G**) to plus (+) in small increments until the desired rock flow is reached. It will take about 4 seconds after each increase or decrease to notice the change.

8. The emulsion flow is controlled by the **Emulsion Spray** switch (**Figure 1-3, J**) on the top of the **Joystick** (**Figure 1-3, D**) and a vernier cable, located on the lower left side of the truck dash. The cable should be used to regulate your flow, and the switch (**Figure 1-3, J**) should be used to turn the emulsion on and off.

Emulsion flow is regulated by pressing the knob on the cable and moving the cable in and out. After optimum flow is achieved, turn the knob on the vernier cable to fine tune the flow further. See diagram opposite of decal #38019. Refer to Parts Section for further details and diagram of the vernier cable. To stop the flow, hold the **Emulsion Spray** switch to the left.

9. The **Warning** light (**Figure 1-3, V**) indicates the hydraulic system is overheating and the PTO should be shut down until the heating problem is solved.

NOTE: The following replaces pages 7-11 to 7-12 in RA-300 Patcher Manual.

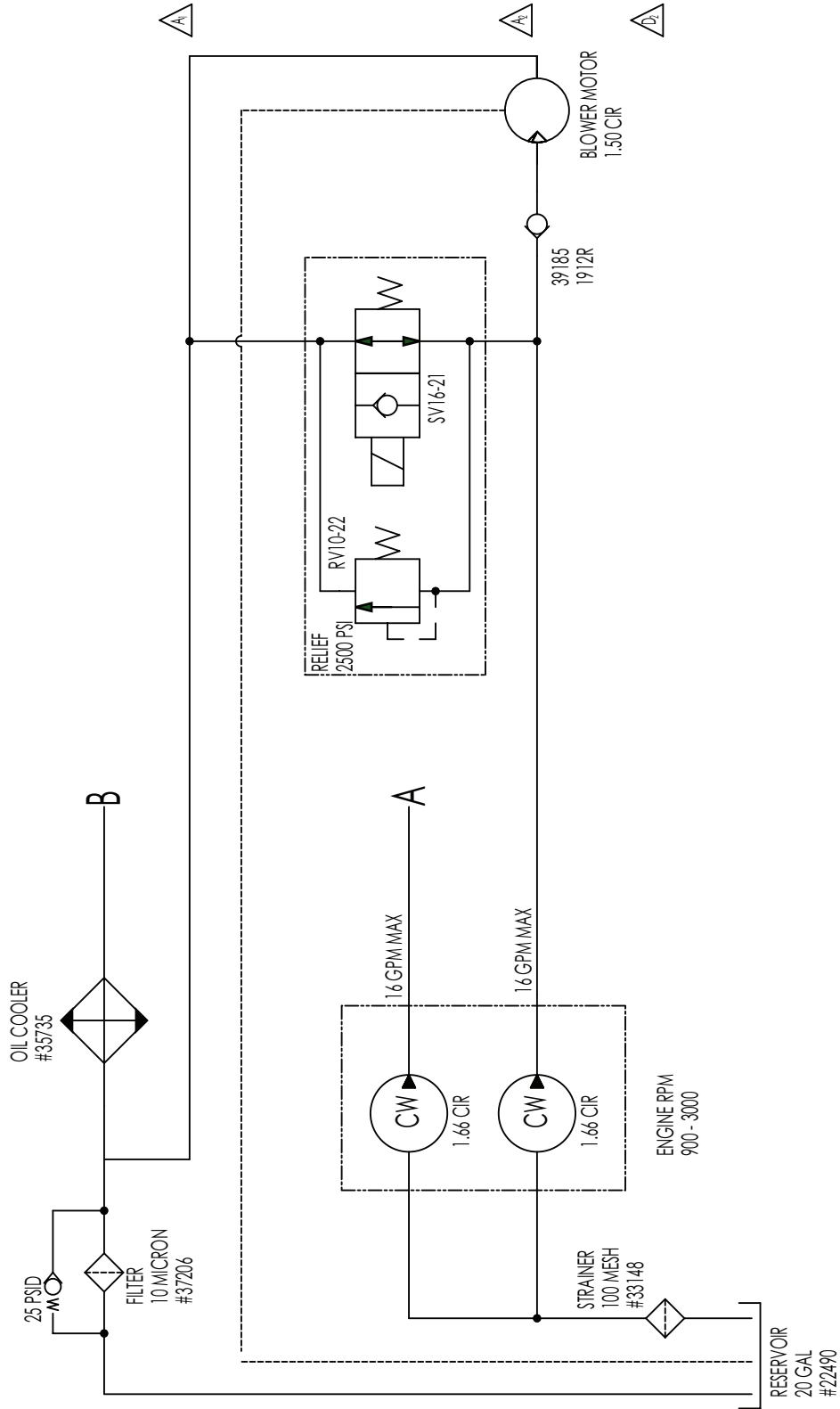


Figure 1-4

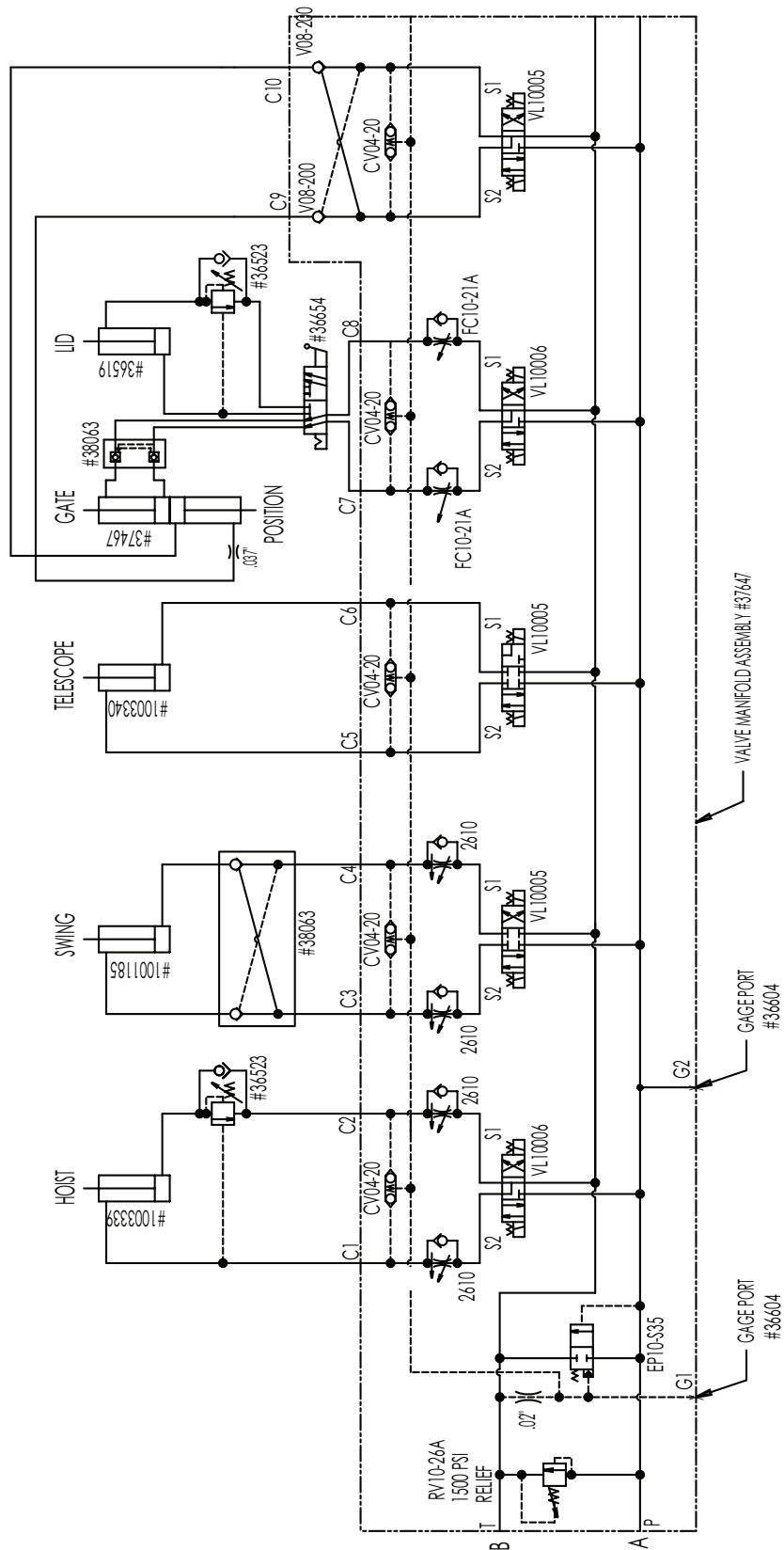


Figure 1-5

NOTES

NOTE: The following replaces pages 8-12 to 8-13 in RA-300 Patcher Manual.

Controls Group - Ref: 28663

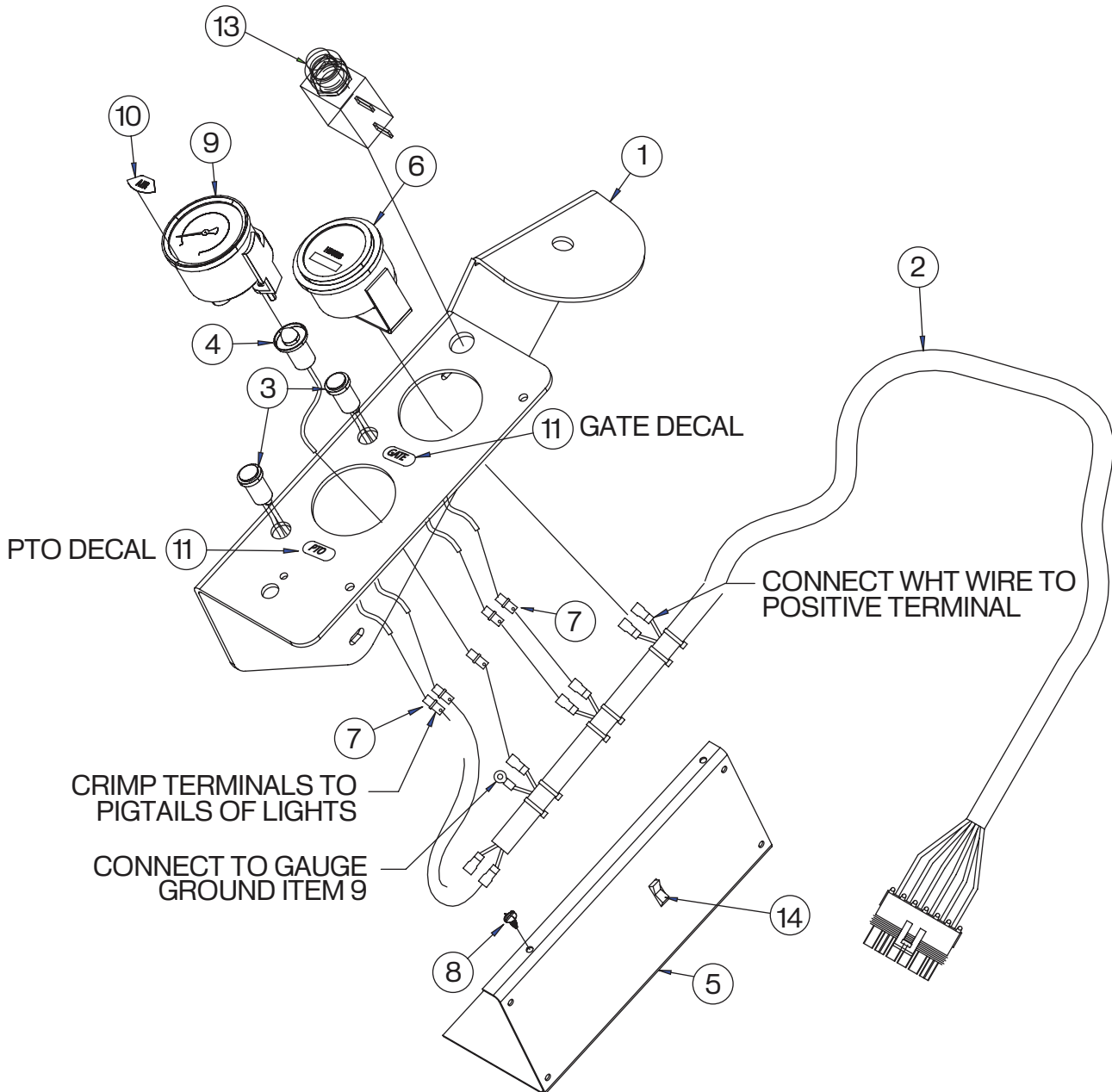


Figure 1-6

Controls Group - Ref: 28663 Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	27518	1	MOUNT,GAUGES/CONTROL BOX,W/POT	
2	29089	1	HARNESS,GAUGE PANEL,F/L,RA300	
3	31983	2	LIGHT,RED,DASH,50 HOLE	
4	33435	1	LIGHT & SOCKET,12V,2.00 GAUGE	
5	27519	1	COVER,GAUGES W/POT	
6	35385	1	GAUGE,HOUR METER	
7	36348	5	TERM,PUSH-ON,25,M,18-14,SLV	
8	81150	2	SCR,SLFTPG,PH,#10X.500,AB	
9	37698	1	GAUGE,PRESS,0-15 PSI,02MP	
10	37699	1	DECAL,AIR,GAUGE LABEL	
11	39017	1	DECAL,GAUGE PANEL,RA300	
12	37422	1	TERM,SOLDER SPLICE,20-10 AWG	
13	36150	1	ALARM,BUZZ/LIGHT,RED,HYDRA TEMP	
14		1		
-	28004	1	CONTROL GRP,POG,GMC,RA300	Includes 3 Following Items
-	28964	1	HARNESS,10K POTENTIOMETER,GMC	
-	39019	1	DECAL,POG,POTENTIOMETER	
-	72055	1	KNOB,HYD CONTROL	

NOTE: The following replaces pages 8-22 to 8-27 in RA-300 Patcher Manual.

Discharge Boom Group - Ref: 24323

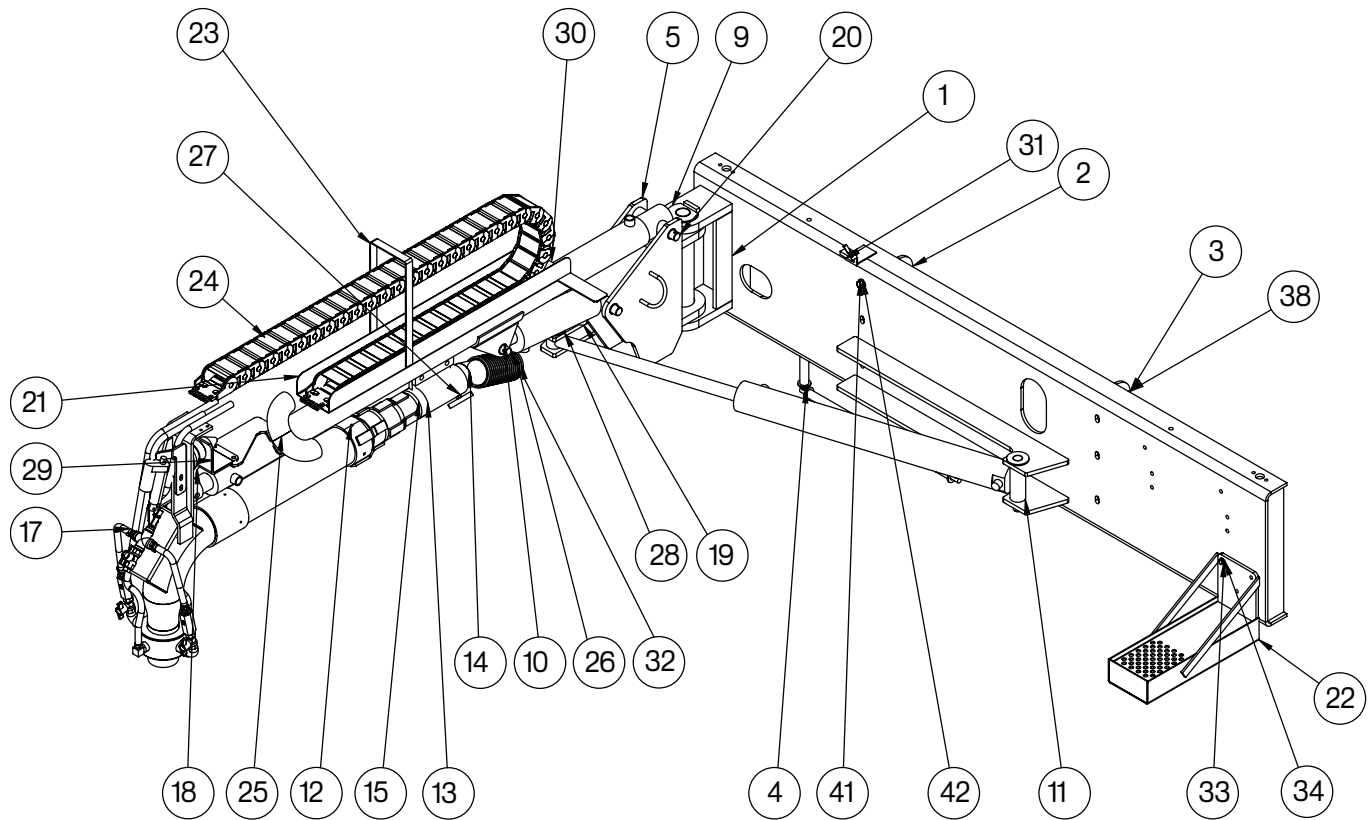


Figure 1-7

Discharge Boom Group - Ref: 24323 Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	1001457	1	W/M,BUMPER,HORIZ BOOM,NISAN	
2	1000926	1	SUPP,RH,FRT BUMPER,RA300,NISAN	
3	1000927	1	SUPP,LH,FRT BUMPER,RA300,NISAN	
4	1000948	1	W/M,GUIDE,HOSE,RA300 BUMPER	
5	1003338	1	W/M,BOOM PIVOT,RA400	
6	32833	2	BUSHING,1.503ID,1.754OD,1.5	
7	36613	1	BEARING,THRUST 1.50 ID X.0781	
8	36614	3	WASHER,THRUST,1.50IDX.062	
9	20491	1	W/M,PIVOT PIN	
10	930041	10	BUSHING,1.25ODX1.00IDX.50	
11	1001185	1	CYL,HYD,3.0B X 26.0S,W/SENSOR	
12	20798	1	REDUCER W/M,4 PVCX3 PVC	
13	1001443	1	GRP,MID BOOM DISCHARGE	
14	24549	1	CONNECTOR PIPE,W/M	
15	1001440	1	W/M,DISCHARGE TUBE,HORIZ BOOM	
16	1001442	1	PIPE,4.00X23.50,SCH 40,ABS	
17	1003561	1	GRP,DISCHARGE NOZZLE,RA300S	
18	1003340	1	CYL,HYD,3.0BX48.0SX2.0R,RA400	
19	1003339	1	CYL,HYD,3.0BX6.0SX1.5R	
20	20874	3	W/M,PIN,CYLINDER,1.00OD	
21	1002175	1	W/M,CHAIN GUIDE,RA400	
22	1001445	1	GRP,DRIP PAN,BOOM	
23	1001456	1	GUIDE,CHAIN,HORIZ BOOM	
24	1001452	1	E-CHAIN,ENERGY TUBE,40 LINKS	
25	1001454	1	W/M,HOSE RET,HORIZ BOOM	
26	30872	1	W/M,PIN,CYLINDER,1.00 OD	
27	21553	2	W/M,T-BOLT, .375-16	
28	22201	1	W/M,PIN,CYLINDER,1.00 OD	
29	1002693	1	W/M,RECEIVER,BOOM LOCK	
30	1002688	1	ACTUATOR,LIMIT SWITCH,BOOM	
31	989818	1	SWITCH,LIMIT,NC,C.P.I.	
32	985583-025	1	HOSE,3.00 ID,POLY CONV X 25 FT	
33	80226	1	CSHH,.375-16X1.50,GR5	
34	80996	2	WASHER,FLAT,SAE,.375	
35	81201	1	WASHER,LOCK,.375	
36	80038	1	NUT,HEX,.375-16 UNC	
37	80983	1	CSHH,.625-11X2.00,GR8	
38	81201	2	WASHER,FLAT,SAE,.625,HARDENED	

Discharge Boom Group - Ref: 24323 (continued)

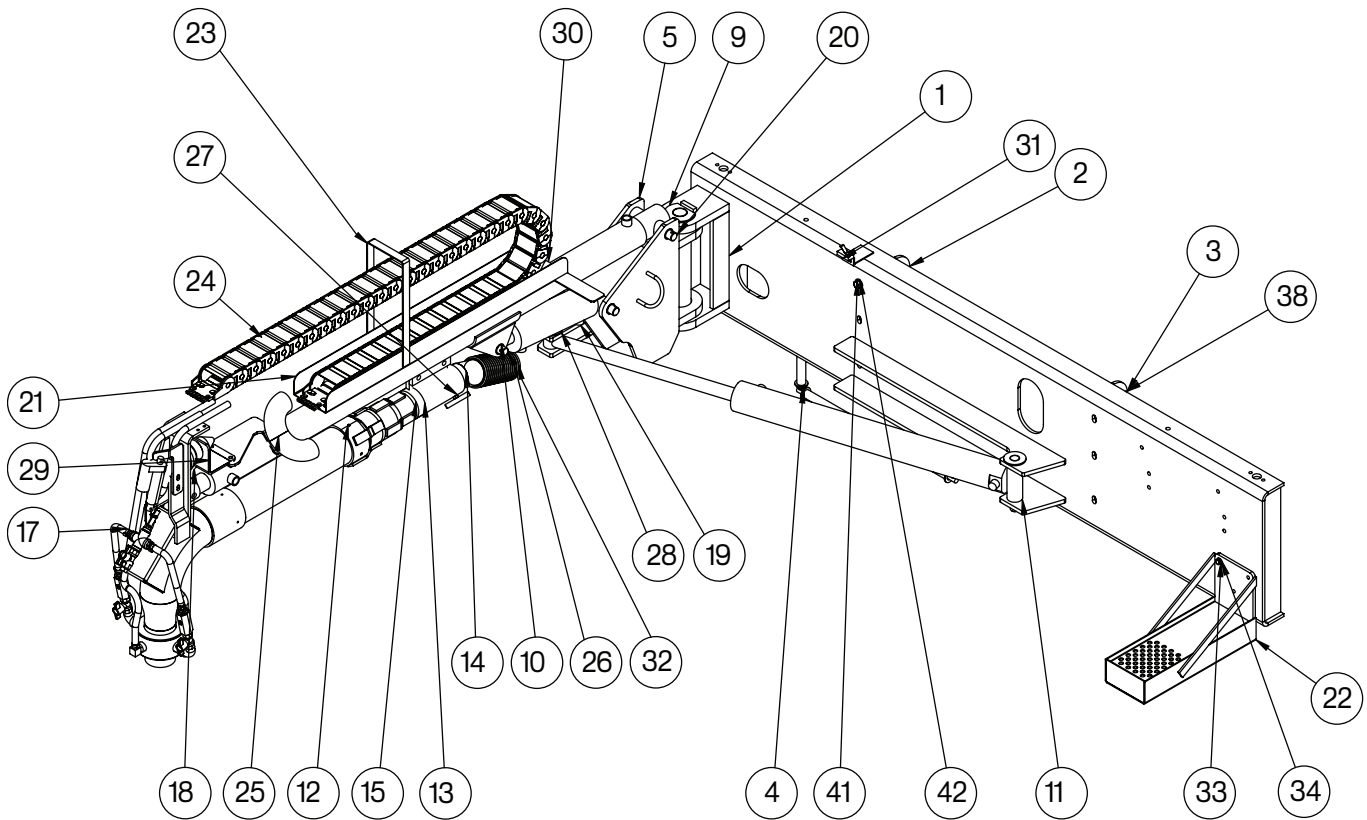


Figure 1-7

Discharge Boom Group - Ref: 24323 (continued) Parts List

Item No.	Part Number	Qty.	Description	Remarks
39	80356	1	NUT,FLEXLOC,.625-11,FULL,LT	
40	80354	1	NUT, FLEXLOC, .500-13, FULL, LT	
41	81113	1	CSHH,.500-13 X 1.50,GR8	
42	81141	2	WASHER,FLAT,SAE,.500,HARDENED	

NOTES

1002043SK 1 OF 3

NOTE: The following replaces 28645SK in RA-300 Patcher Manual.

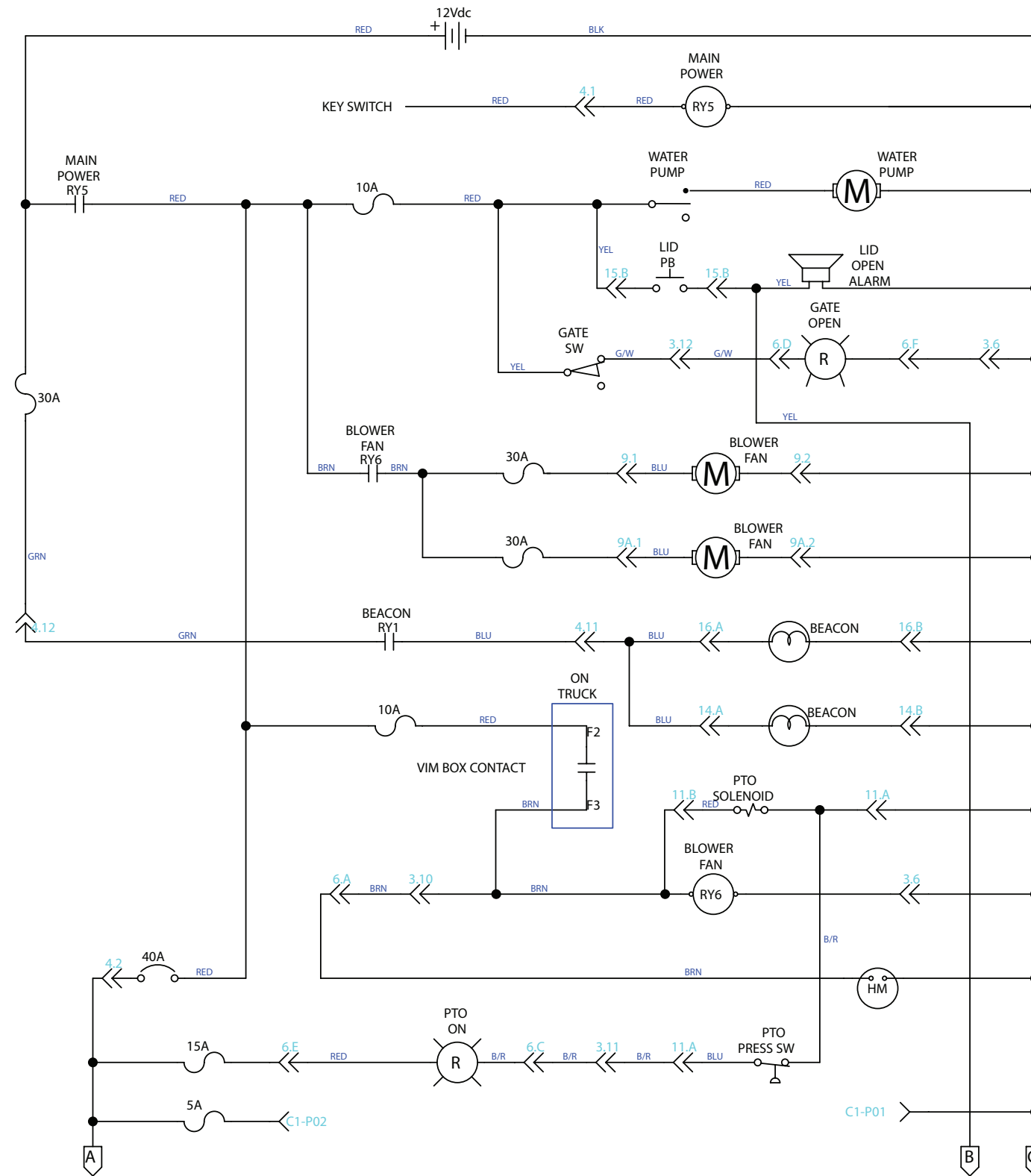


Figure 9-30

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1002043SK 2 OF 3

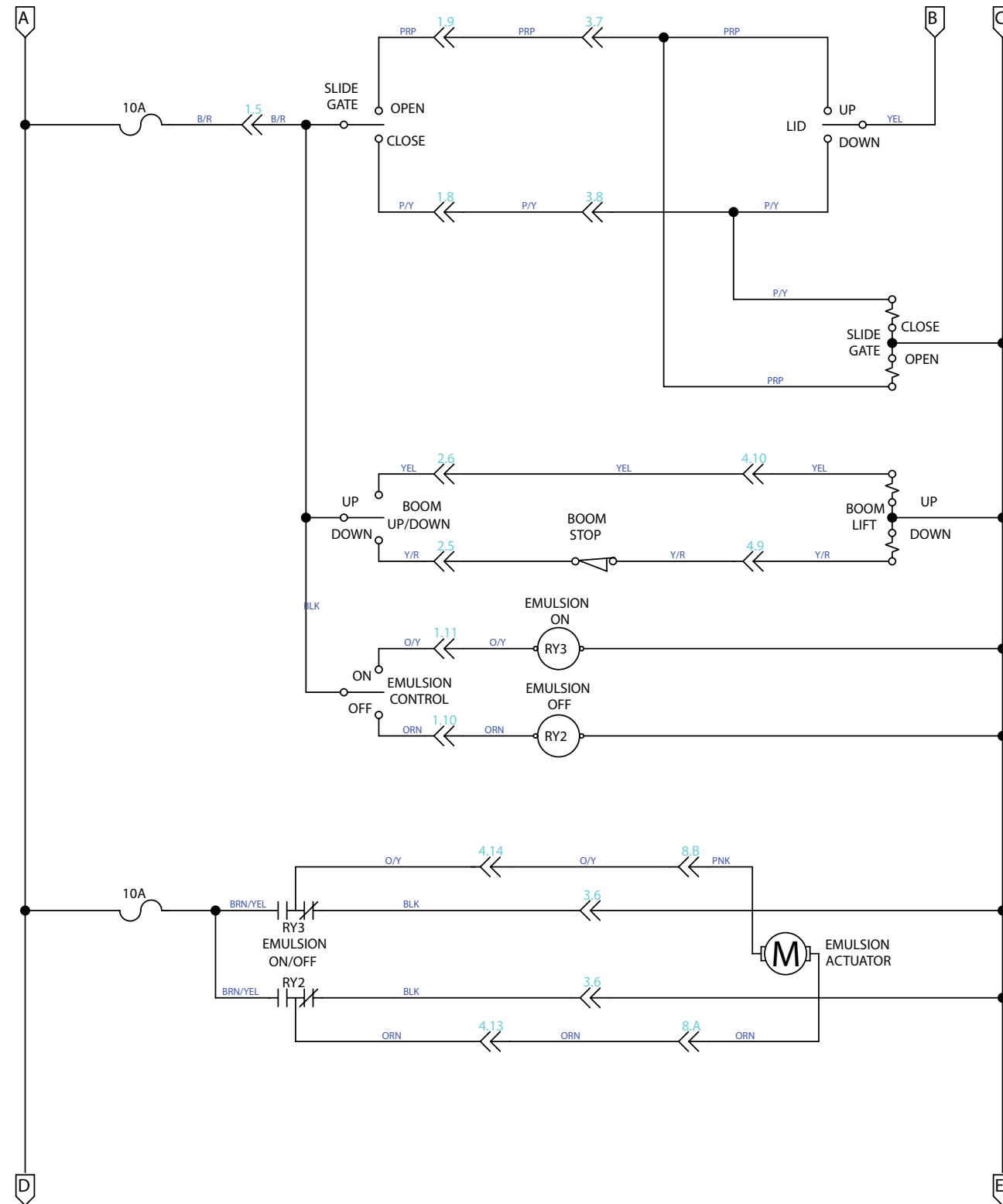
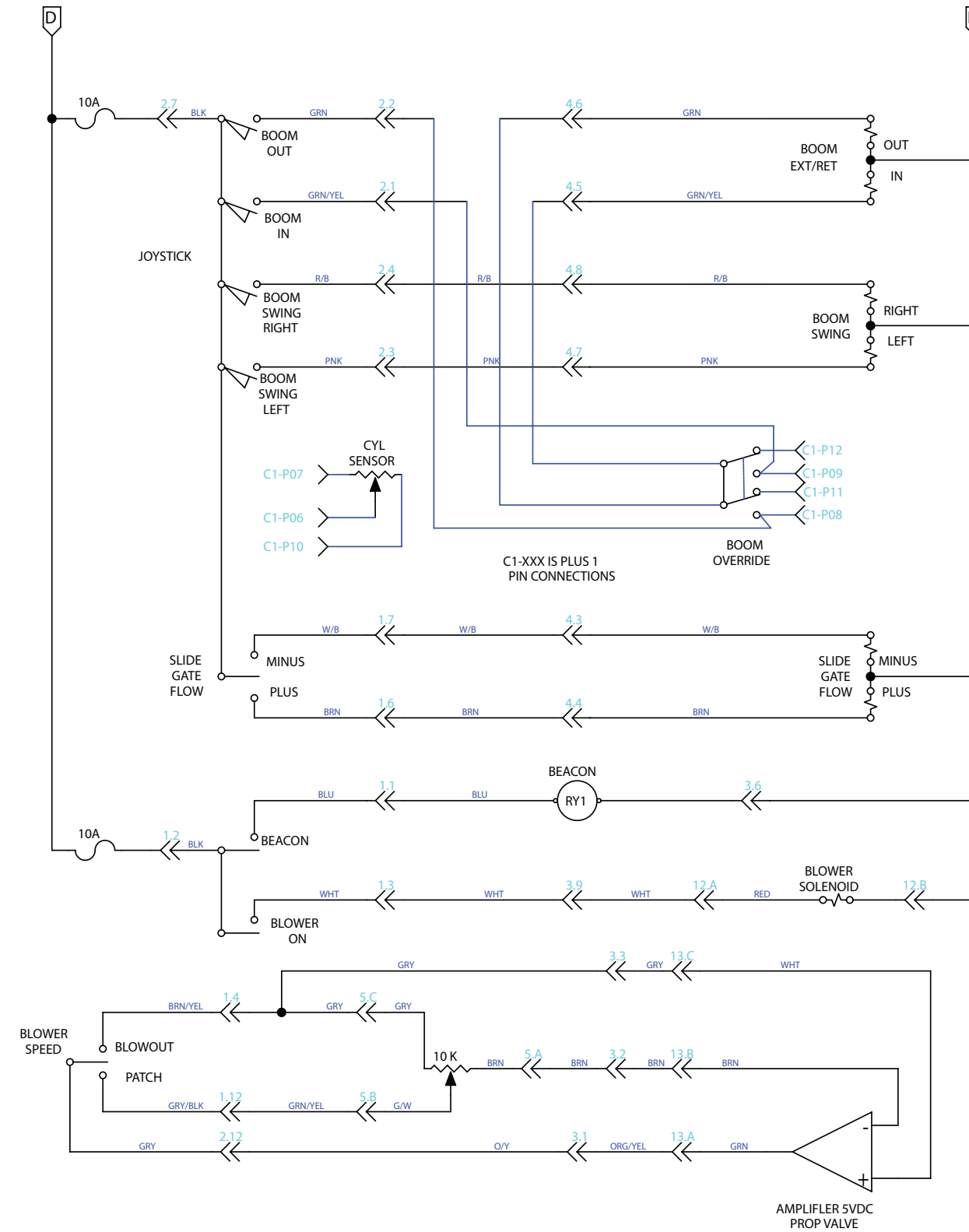


Figure 9-30

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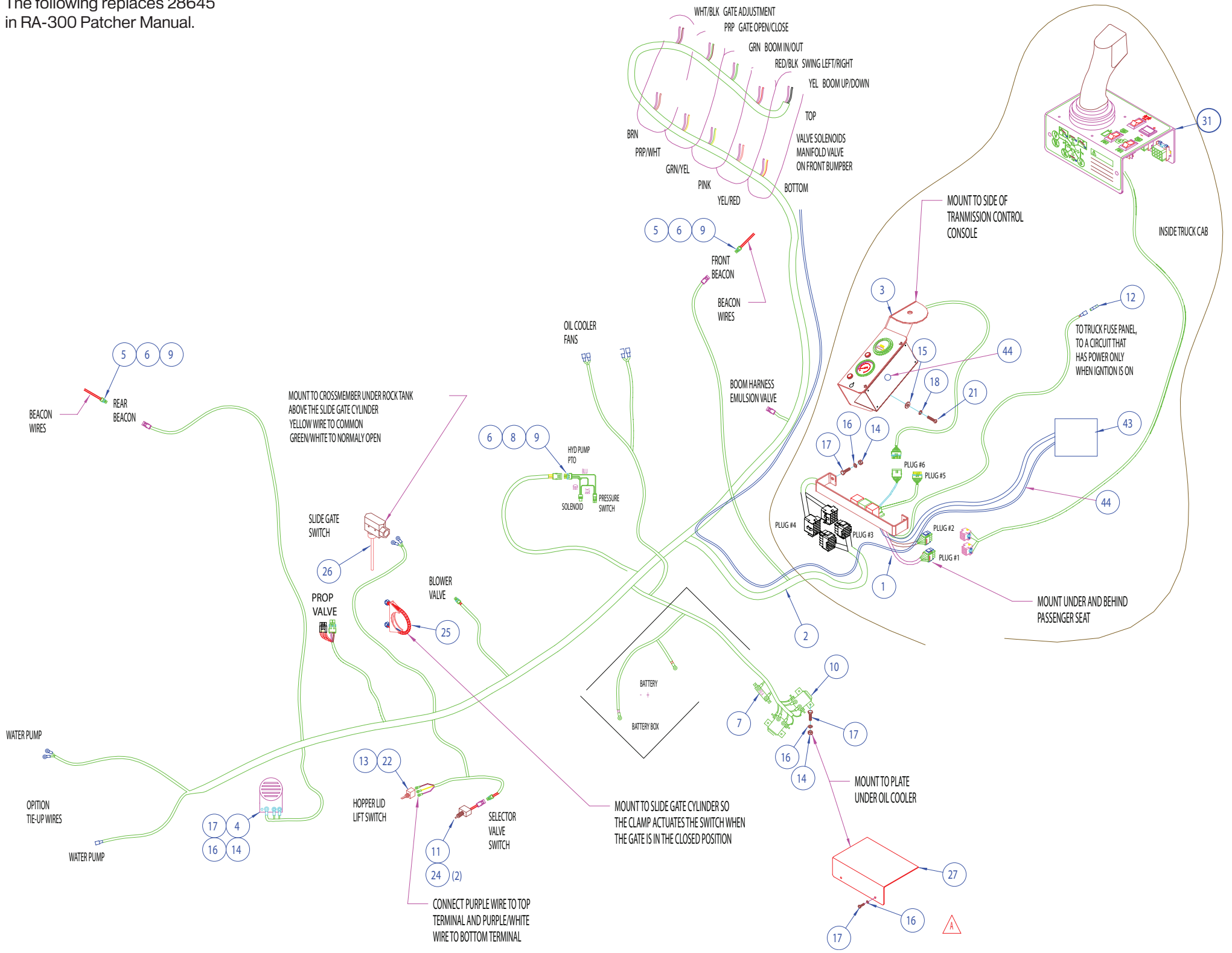
1002043SK 3 OF 3



NOTES

1002043 1 OF 4

NOTE: The following replaces 28645 in RA-300 Patcher Manual.

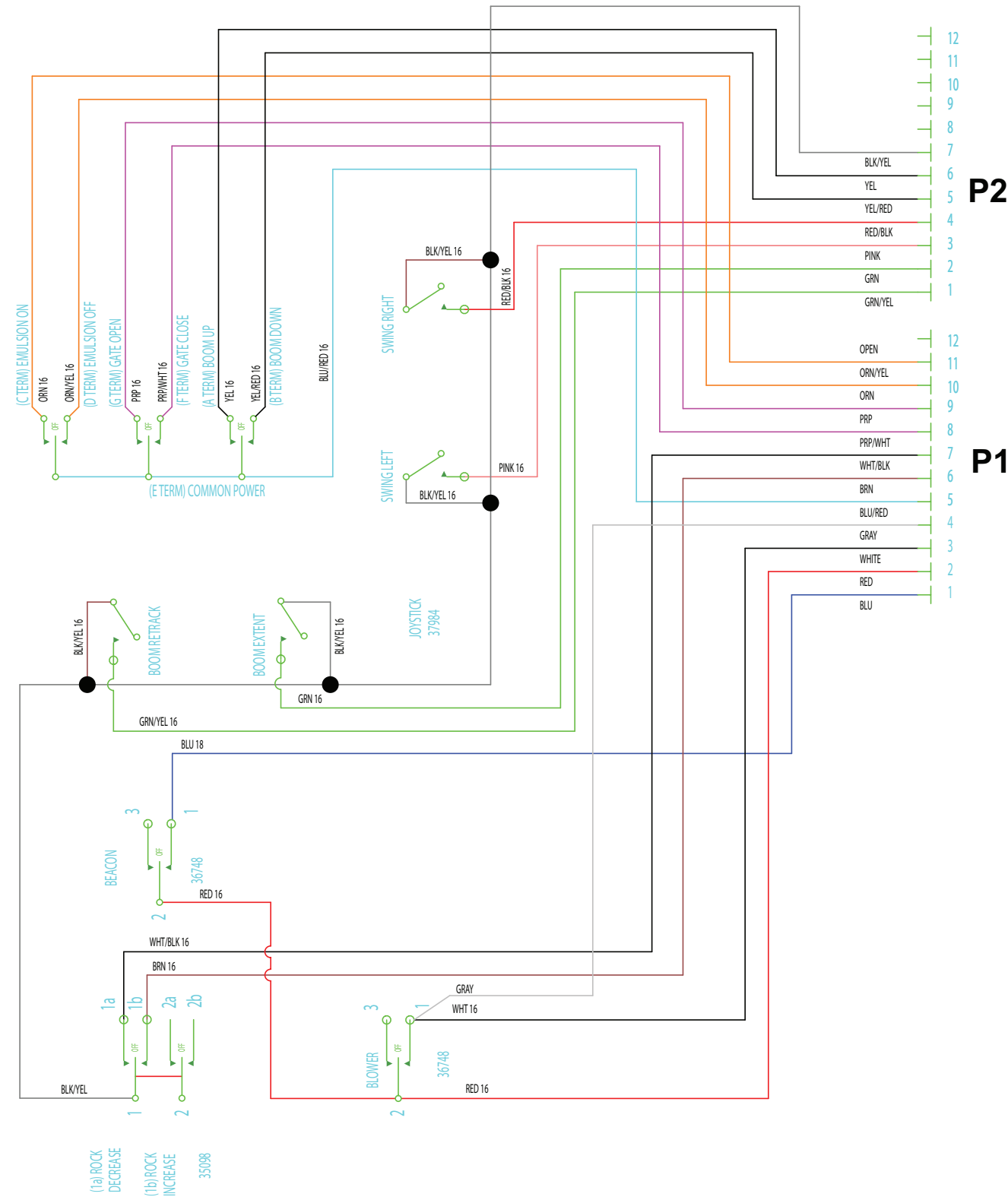


Parts list				
Item	Part No.	Qty	Description	
1	29492	1.00	WIRING,RELAYS & FUSE GRP	
2	28662	1.00	HARNES,MAIN,RA300	
3	28663	1.00	GAUGE PANEL GRP,GMC,RA300	
4	36218	3.00	FUSE,BLADE,30AMP,ATC-30	
5	35139	2.00	CONNECTOR,SEALED,TOWER,2-PIN	
6	36165	7.00	TERM,SEALED CONN,16-14 GA,FEM	
7	34853	1.00	CIRCUIT BREAKER,40 AMP	
8	36300	1.00	CONNECTOR,SEALED,TOWER,3-PIN	
9	36623	7.00	SEAL,CABLE,14 GA	
10	36674	2.00	SOLENOID,CONT DUTY,12V	
11	25247	1.00	SWITCH,PUSH BTN,ON-MOM OFF,MOD	
12	37688	1.00	TERM,PUSH-ON,,25,FUSE TAP-IN	
13	36252	1.00	SWITCH,TOGGLE,SPDT,3-POS,MOM	
14	80036	6.00	NUT,HEX,,250-20	
15	80140	3.00	WASHER,TYPE A PLAIN,,250	
16	80160	8.00	WASHER,SPLIT LOCK,,250	
17	80185	8.00	CSHH,,250-20X1.00,GR5	
18	80476	3.00	WASHER,SPLIT LOCK,M6	
19	80798	2.00	MACH SCR,PH,#10-24X1.00	
20	80824	2.00	NUT,HEX,#10-24	
21	81182	3.00	MACH SCR,PH,M6X1.0X30,CL8.8	
22	871066120	1.00	SEAL,SWITCH,NUT,,469-32	
23	871071601	2.00	WASHER,SPLIT LOCK,#10	
24	80142	2.00	WASHER,TYPE A PLAIN,,375	
25	33312	1.00	CLAMP,MUFFLER,2.5	
26	33964	1.00	SWITCH,BACKUP ALARM	
27	25650	1.00	COVER,SOLENOIDS	
28	37118	3.00	FUSE HOLDER,IN-LINE,BLADE,SEAL	
30	36340	1.00	FUSE,BLADE,10AMP,ATC-10	
31	25682	1.00	JOYSTICK CONSOLE GRP,RA300	
32	1001485	1.00	CONTROLLER,PLUS 1,MC012	
33	1000386	1.00	HARNES,CYL CABLE,20 FT,90	
34	851090624	1.00	SWITCH,TOGGLE,SPDT,2-POS	
35	988900	1.00	CONN,12-PIN,PLUG,DTM06-12SA	
36	988987	12.00	TERM,SOC,DEUTSCH,DRC26	
37	73192-02	3.00	CONN,PLUG,16GA WIRE	
38	989467-01	.00	CONN,WEDGE,WM-12S	
39	983200	1.00	CONN,03-PIN,SOC,DT04-3P	
40	983201	1.00	CONN,03-PIN,PLUG,DT06-3S	
41	982448	3.00	TERM,SOC,DEUTSCH,14-16AWG	
42	983211	1.00	CONN,WEDGE,RECP,3P,DEUTSCH	
43	1001485	1.00	CONTROLLER,PLUS 1	
44	72086	1.00	SWITCH,TOGGLE,DPDT,2-POS	
45	1000386	1.00	HARNES,CYL CABLE,20FT,90	

Figure 9-30

NOTES

1002043 2 OF 4



CONSOLE #29408

Figure 9-30

NOTES

1002043 3 OF 4

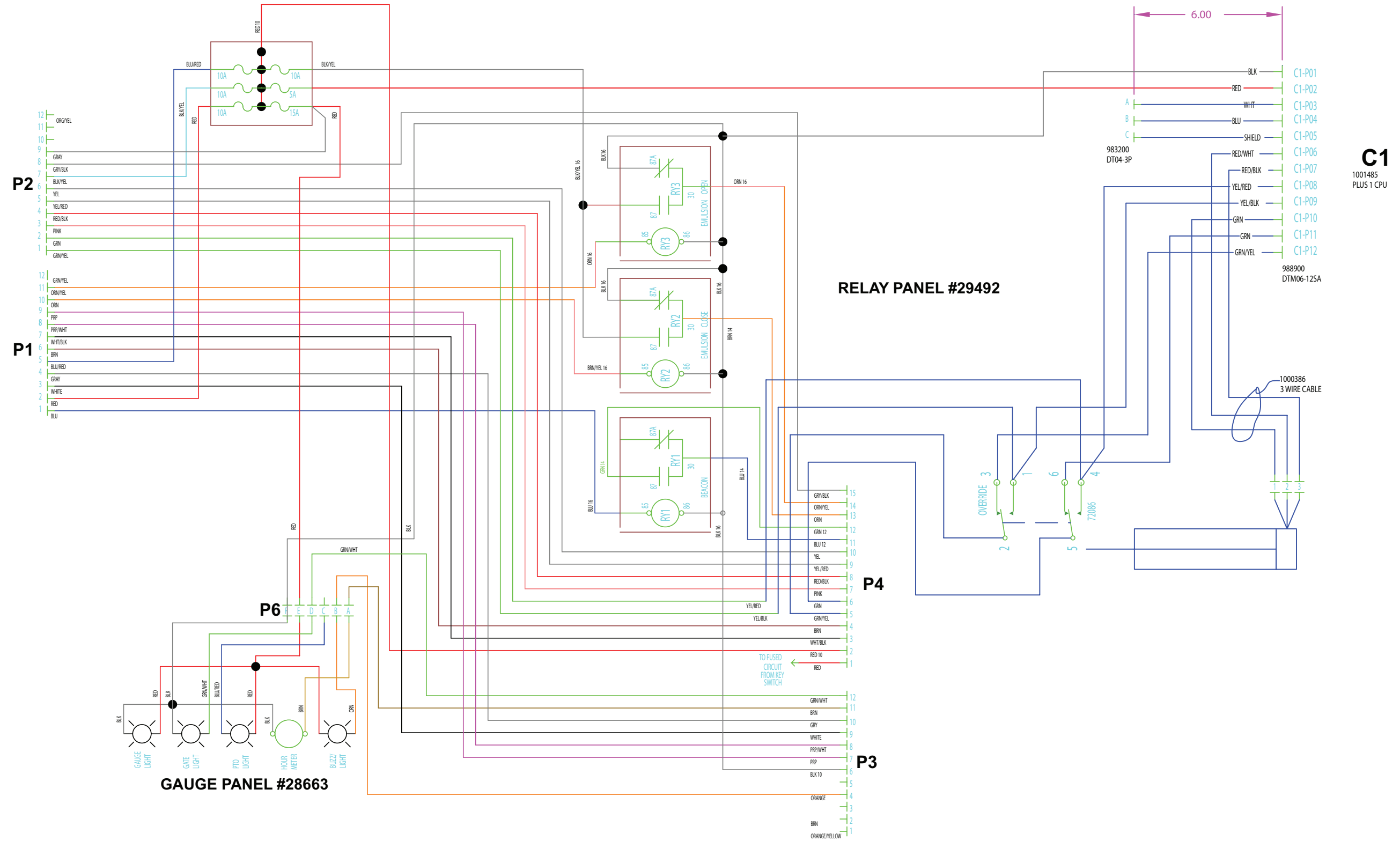


Figure 9-30

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1002043 4 OF 4

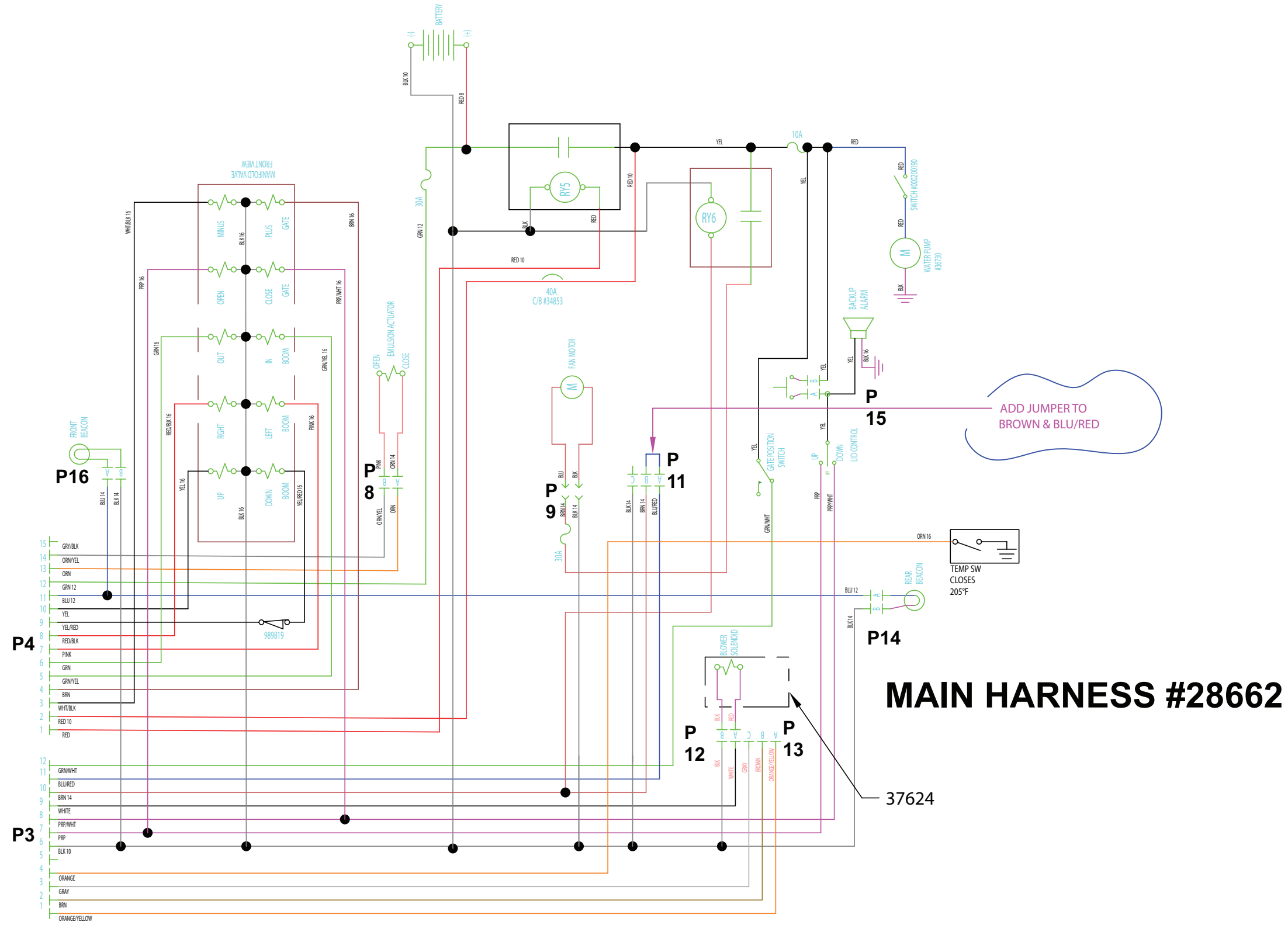


Figure 9-30

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Printed in the U.S.A.