



Safe-Stop[®] 180 TMA

MODEL 9181 TRUCK MOUNTED ATTENUATOR

PUMP CONVERSION INSTRUCTIONS



Product Bulletin

Safe-Stop[®] 180 TMA

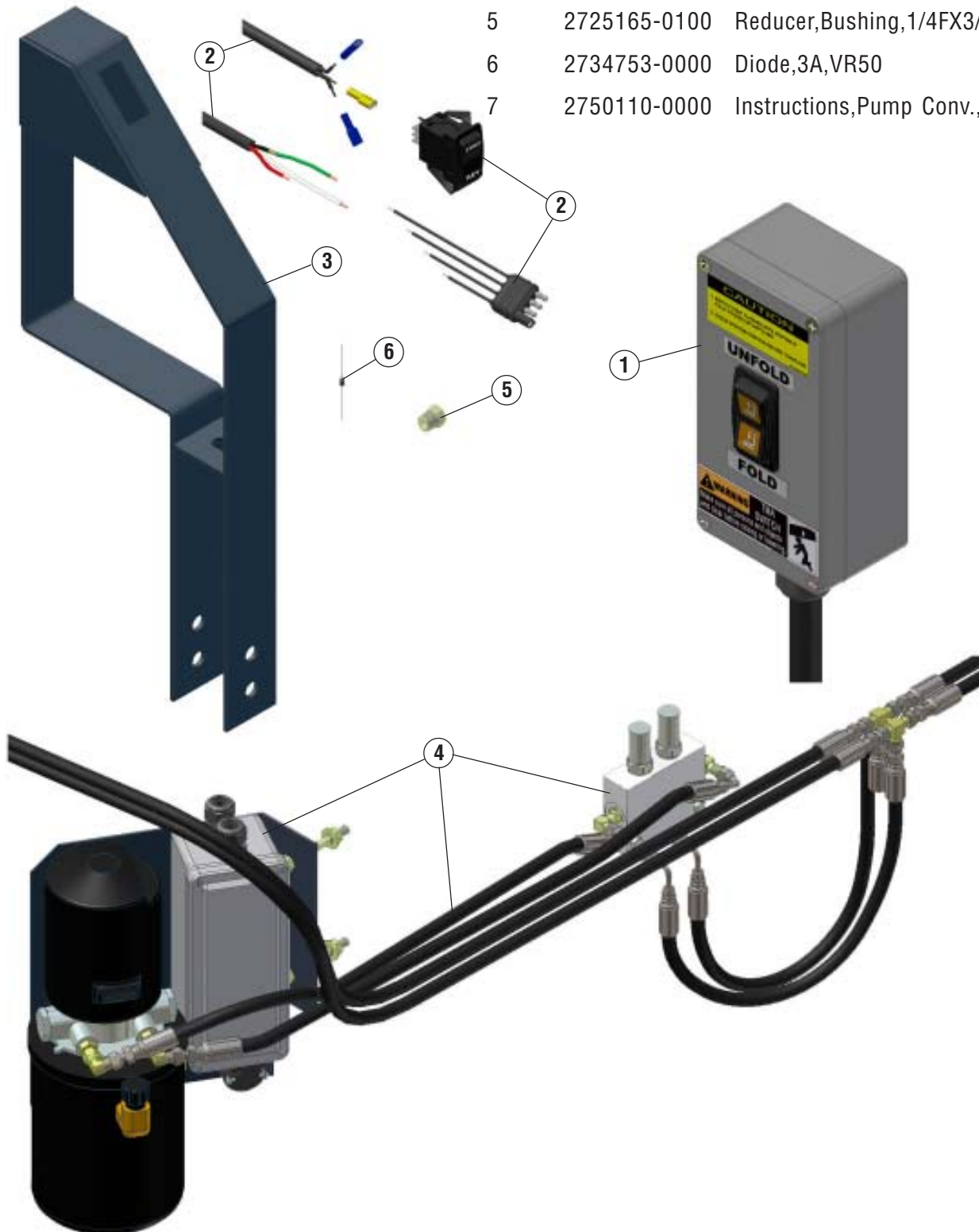
Model 9181

Pump Conversion Instructions



9181 to 9182 Pump Conversion Kit

Item	Stock #	Description	Qty.
1	3526804-0000	Control Box Assy,Cab,9182	1
2	2755223-0000	Switch Assy,Control,9182	1
3	2724106-0000	Guard/Switch Mount,9182	2
4	3526806-0000	Hydraulic Assy,9182	1
5	2725165-0100	Reducer,Bushing,1/4FX3/8M,P	4
6	2734753-0000	Diode,3A,VR50	2
7	2750110-0000	Instructions,Pump Conv., 9181	1



Step 1 - Install new pump to right side (passenger side). Drill two holes in frame as shown in Figures 1 & 2, and mount pump with hardware.

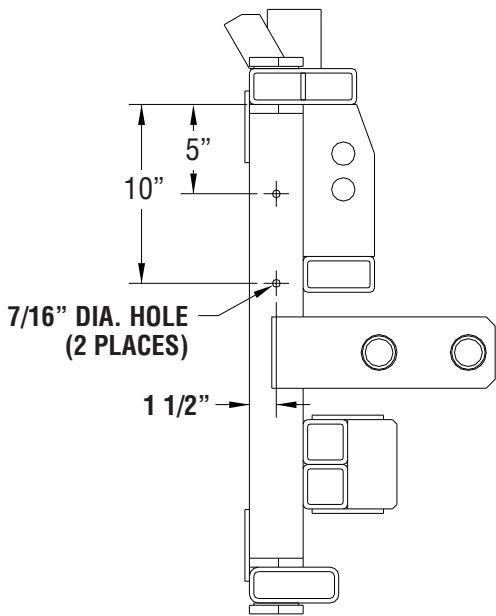


Figure 1

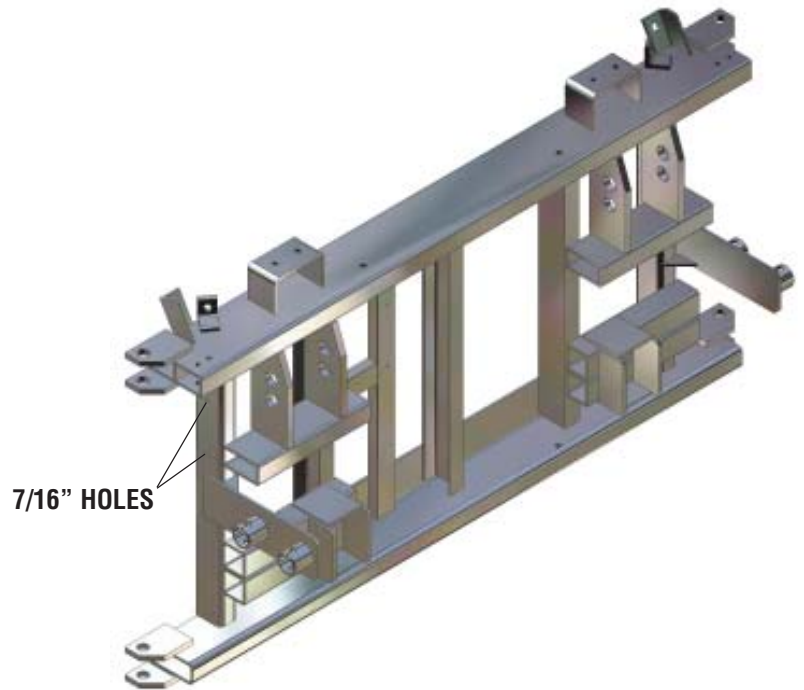


Figure 2

Step 2 - Remove existing pump.

Step 3 - Remove all four cylinder solenoids (next to the cylinders).

Step 3b - Connect the hoses to the cylinders using the reducer bushings.

Step 4 - Disconnect old cab control and control boxes from the hydraulic control box.

Step 5 - Disconnect solenoid wires from hydraulic box. Mark the left side solenoid cable. See Figure 3.

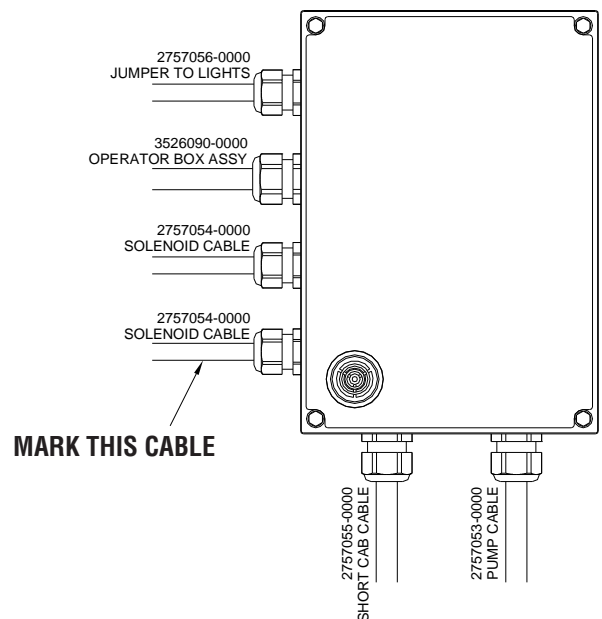


Figure 3

Step 6 - Disconnect the jumper to light box.

Step 7- Remove Hydraulic box.

Step 8 - Install counter balance in the same bolt holes the 9181 pump used.

Step 9 - Install hoses as shown in Figure 4.
Leave the old hoses from the Tees to the cylinders.

Step 10 - Install guard and switch. Plug switch into new box plug connectors.

Step 11 - Install cab control box. Plug switch into new box plug connectors.

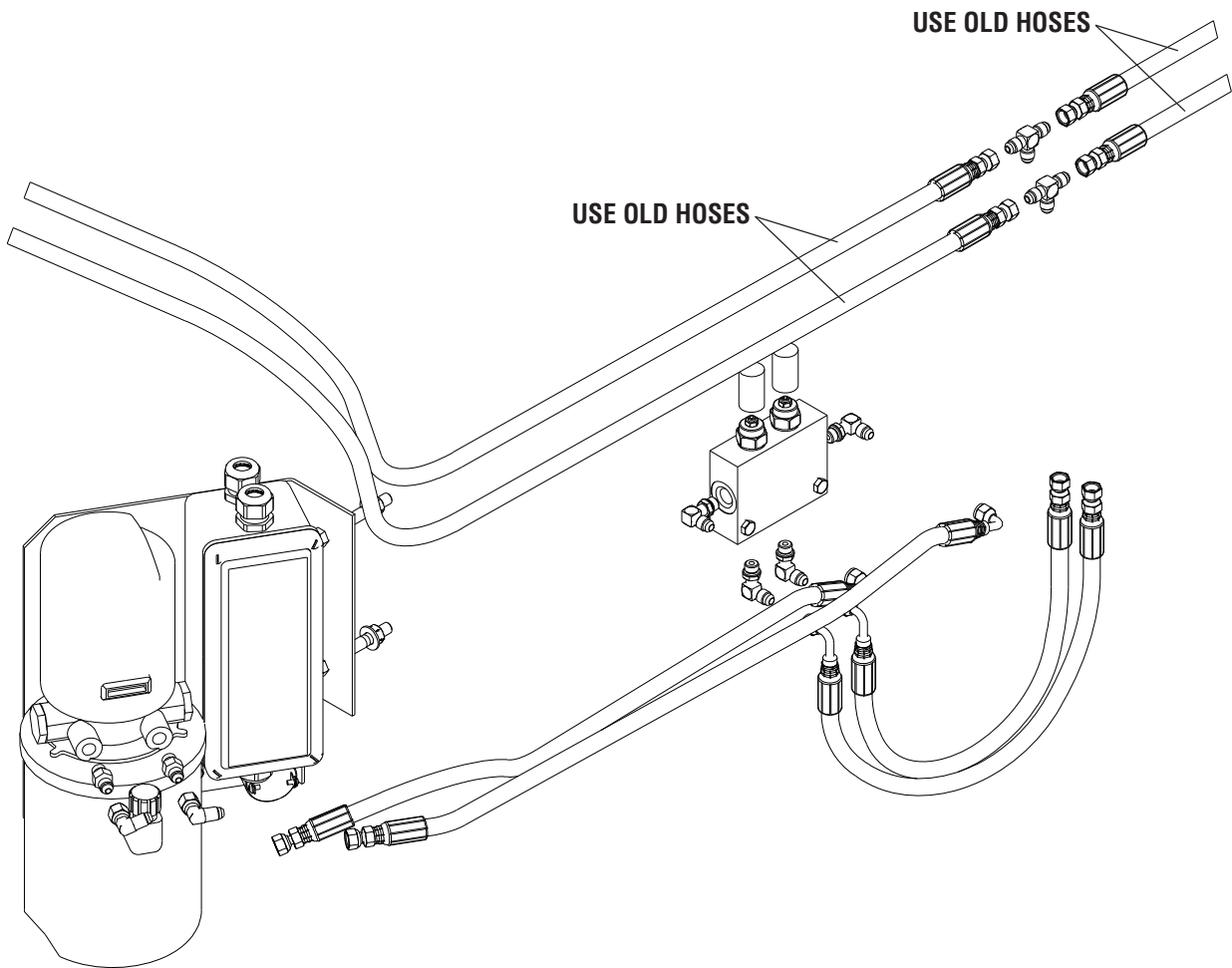


Figure 4

Step 12 - Re-connect the left solenoid as shown in Figure 5.

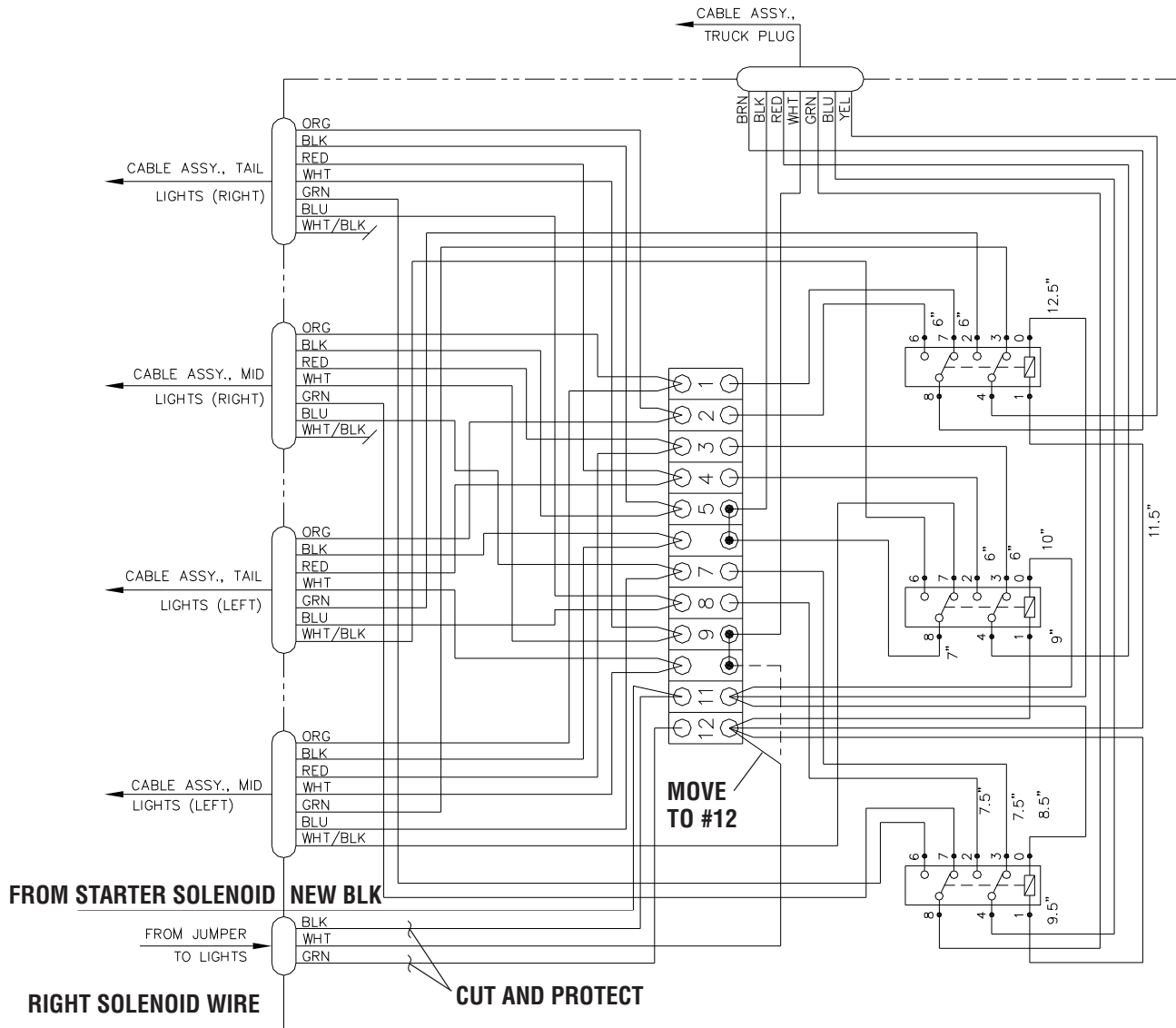


Figure 5
Lighting Box Wiring Schematic

Step 13 - Add black wire between starter solenoid power (inside new box) and terminal # 11 in the Lighting control box.

Step 14 - Cut and protect the buzzer wire that connects to the white wires inside the electrical wire. Use the buzzer wire with new diodes to the starter solenoids as shown in Figure 7.

Step 15 - Add ground wire to buzzer (-).

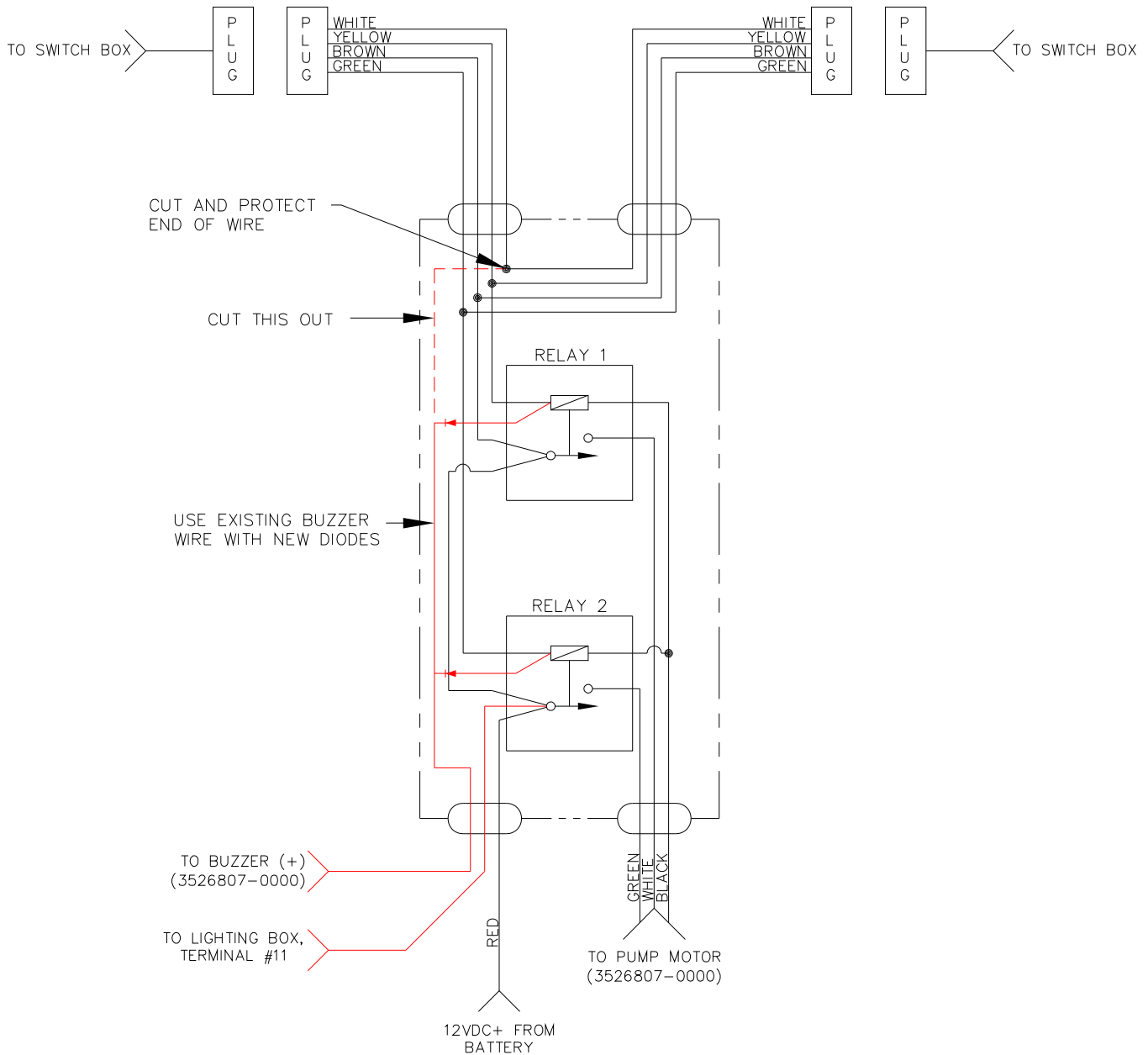
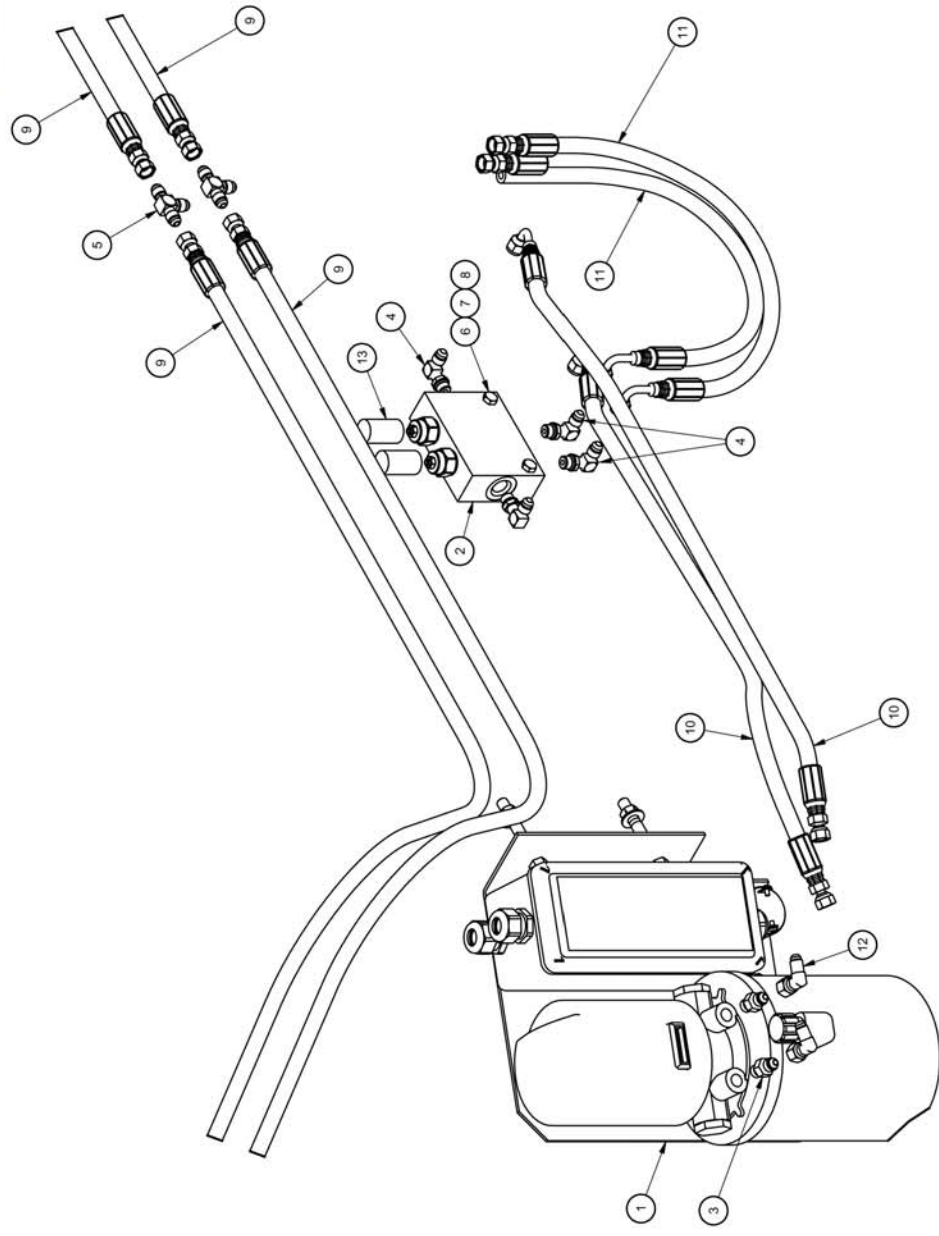


Figure 7

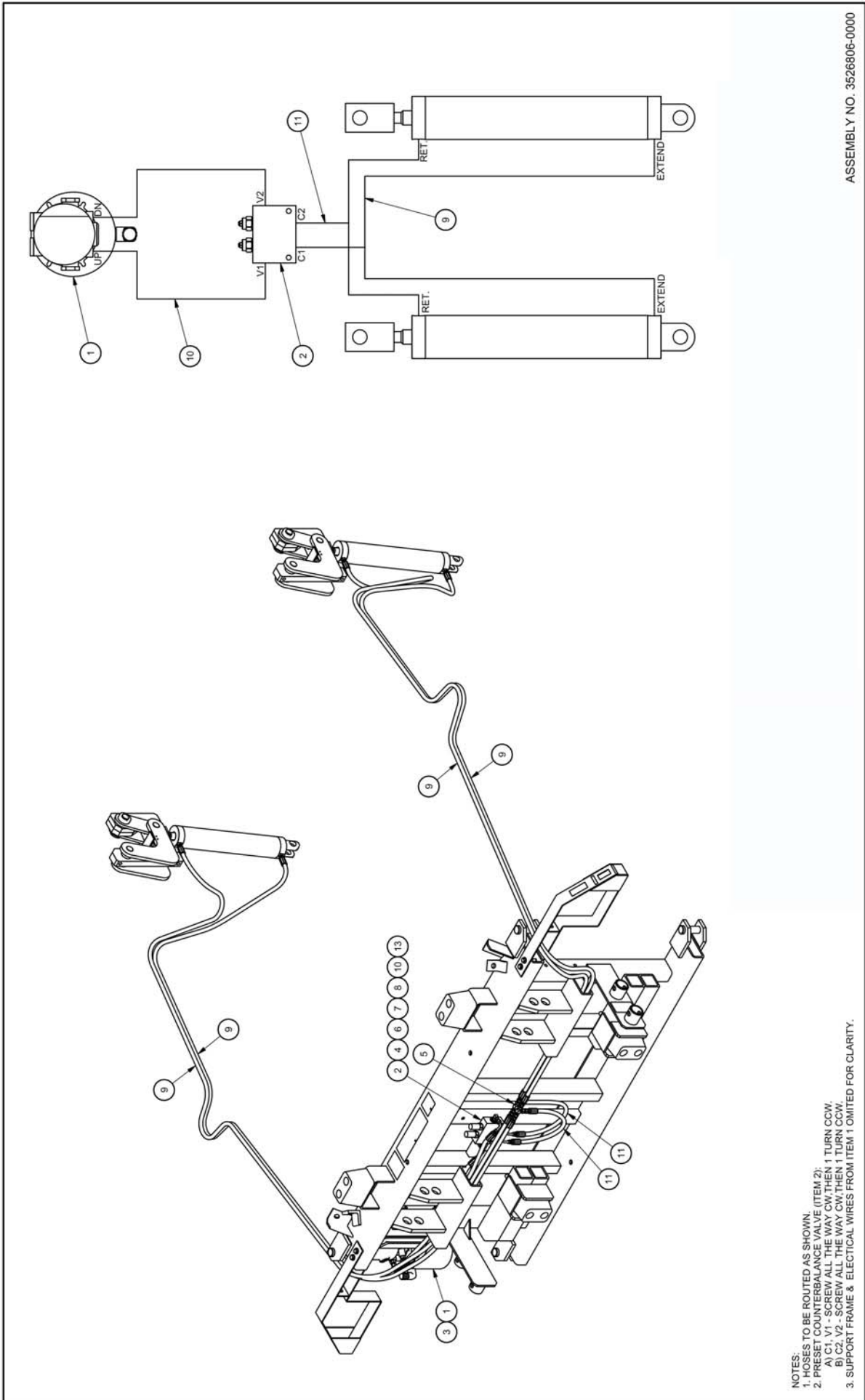
ITEM NO. 352682A-0000
 PARTS LIST
 TOLERANCES:
 ANGULAR: ± 1°
 LINEAR: ± .010"
 UNLESS OTHERWISE SPECIFIED

ITEM	STOCK NO.	DESCRIPTION	QTY.
1	3526807-0000	HYDRAULIC PUMP ASSY,9182	1
2	2703001-0000	VALVE,HYDRAULIC,COUNTER BALANCE	1
3	2715315-0100	COUPLING #4 MORB X #4 M/JIC,P	2
4	2703004-0100	ELBOW #4 M-JICX#6 M-ORB,P	4
5	2715316-0100	TEE #4 M-JIC,P	2
6	2699141-0100	BOLT,HX,1/4X1 3/4,G2,P	2
7	2708003-0100	WASHER,FLAT,1/4X5/8,P	2
8	2704155-0100	NUT,HX,NYLON,LOCK,1/4,P	2
9	2703003-0140	HOSE ASSY,HYDRAULIC,M/F ENDS,140	4
10	2715329-0000	HOSE ASSY,HYDR,30,PUMP SUP	2
11	2715319-0000	HOSE ASSY,HYDRAULIC,16, CYL TOP	2
12	2715335-0100	ELBOW #4M-JIC X #4F-JIC-S,P	2
13	2703037-0000	CAP,HYDRAULIC,COUNTER BALANCE VALVE	2



NOTES:
 1. SEE SHEET 2 FOR INSTALLATION DETAILS.
 2. ELECTRICAL WIRES FROM ITEM 1 OMITTED FOR CLARITY.

ASSEMBLY NO. 3526806-0000

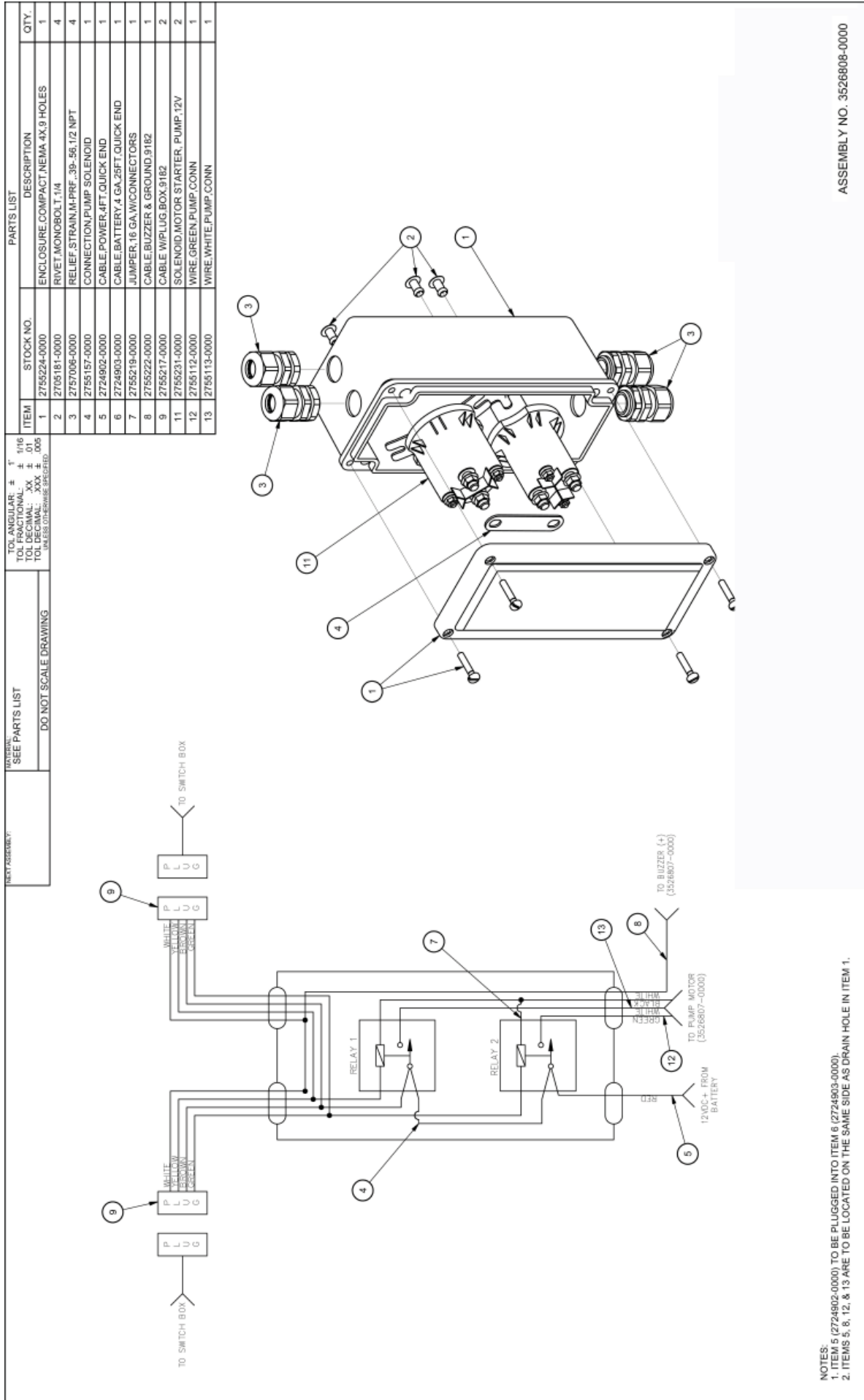


- NOTES:
1. HOSES TO BE ROUTED AS SHOWN.
 2. PRESET COUNTERBALANCE VALVE (ITEM 2):
 - A) C1, V1 - SCREW ALL THE WAY CW, THEN 1 TURN CCW.
 - B) CZ, V2 - SCREW ALL THE WAY CW, THEN 1 TURN CCW.
 3. SUPPORT FRAME & ELECTRICAL WIRES FROM ITEM 1 OMITTED FOR CLARITY.

ASSEMBLY NO. 3526806-0000

ITEM	STOCK NO.	DESCRIPTION	QTY.
1	3526808-0000	ELECTRICAL BOX, HYDRAULIC PUMP	1
2	2757857-0000	BUZZER, 6-28V, 80-950B	1
3	2715401-0000	BRACKET, PUMP, TMA 9182, PT	1
4	2701020-0000	BOLT, HX, 3/8X3/4, G	2
5	2708021-0100	WASHER, FLAT, 3/8X1, P	4
6	2708041-0100	WASHER, LOCK, 3/8, P	2
7	2701311-0100	BOLT, HX, 3/8X3, G2, P	2
8	2708601-0300	WASHER, LOCK, #10, S	4
9	2704861-0300	NUT, HX, #10-32, S	4
10	2700971-0100	BOLT, HX, 5/16X3/4, G2, P	1
11	2708131-0100	WASHER, FLAT, 5/16 X 1 1/16, P	2
12	2708171-0100	WASHER, LOCK, 5/16, P	1
13	2704081-0100	NUT, HX, 5/16, P	1
14	2723671-0000	PUMP, MARINE GD, VERT, 12V	1
15	2704243-0100	NUT, HX, LOCK, 3/8, GC, P	2
16	2706812-0300	SCREW, SOCKET HD, 10-32X1, S	4
19	2020961-0000	WRAP, SHRINK, 1/4	6
20	2755036-0000	CONNECTOR, BUTT, 12-10 TO 16-14 GA	1
21	2755937-0000	WIRE, 10 GA, BLACK	.75

NOTES:
 1. CABLES AND WIRES NOT SHOWN FOR CLARITY.
 2. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.



NOTES:
 1. ITEM 5 (2724902-0000) TO BE PLUGGED INTO ITEM 6 (2724903-0000).
 2. ITEMS 5, 8, 12, & 13 ARE TO BE LOCATED ON THE SAME SIDE AS DRAIN HOLE IN ITEM 1.

ASSEMBLY NO. 3526808-0000

Notes



For more complete information on Valtir products and services, visit us on the web at www.valtir.com. Materials and specifications are subject to change without notice. Please contact Valtir to confirm that you are referring to the most current instructions.

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