

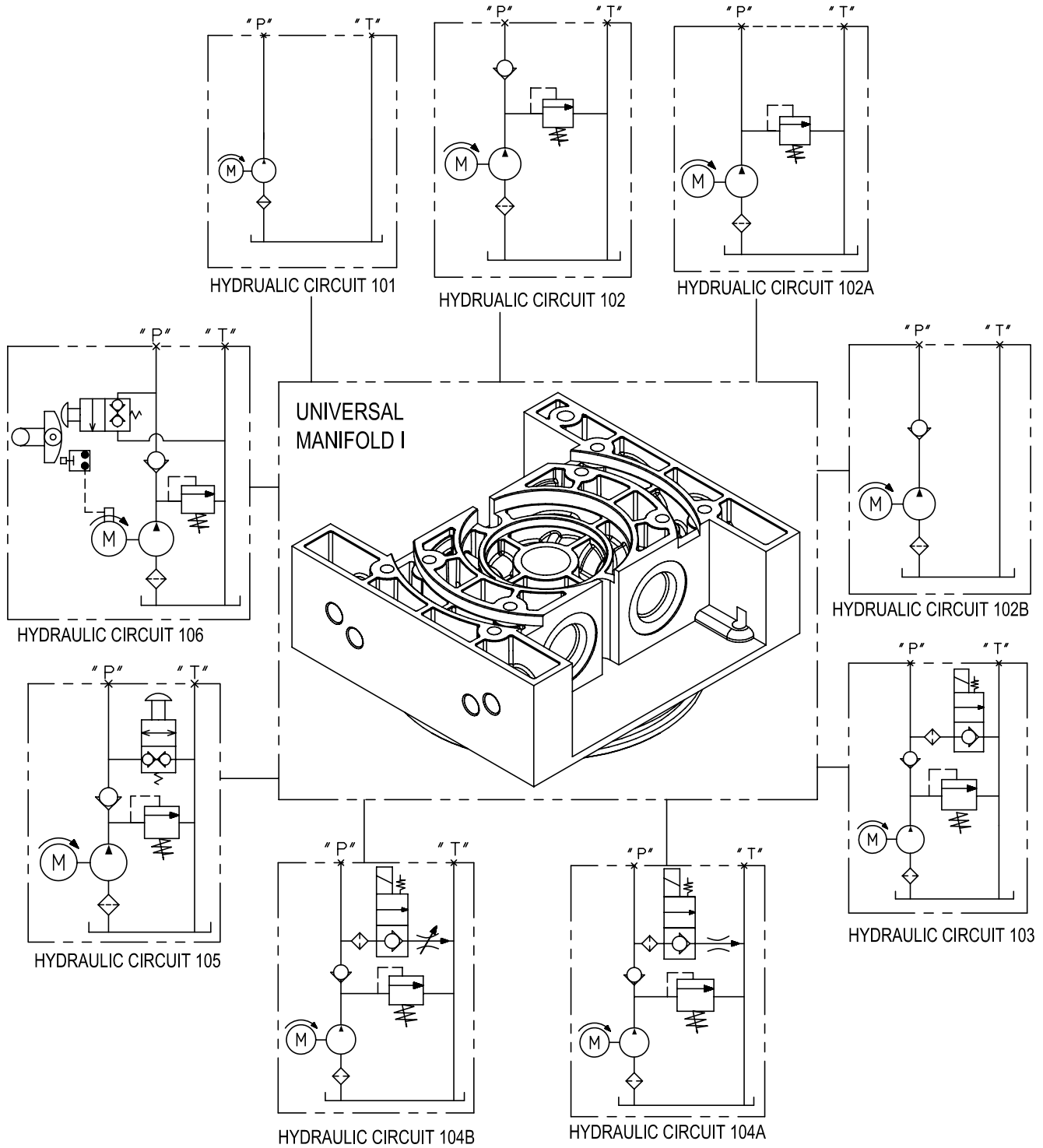


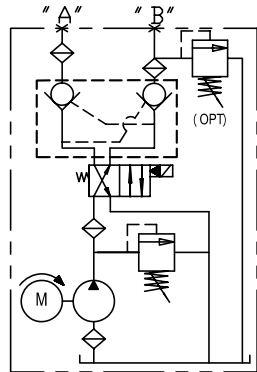
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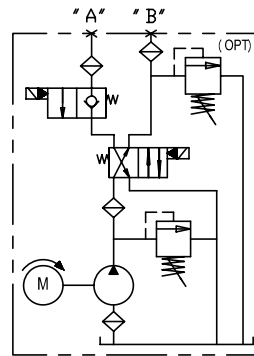
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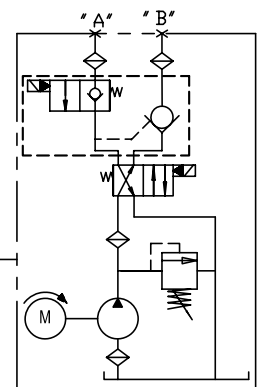




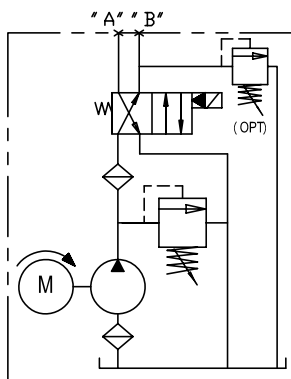
HYDRAULIC CIRCUIT 108  
 (OPTIONAL 2ND RV)



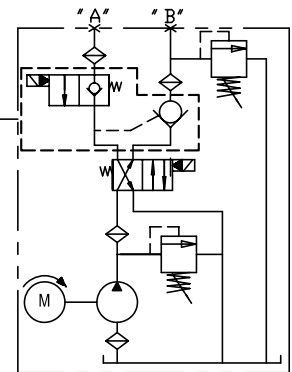
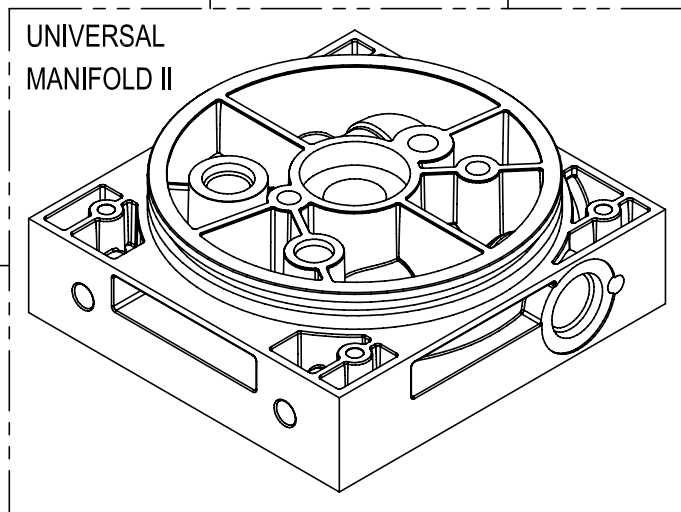
HYDRAULIC CIRCUIT 109  
 (OPTIONAL 2ND RV)



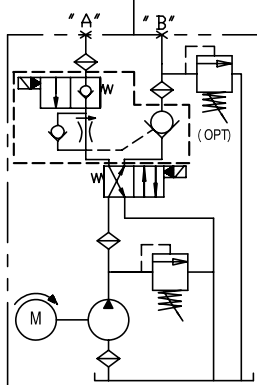
HYDRAULIC CIRCUIT 110



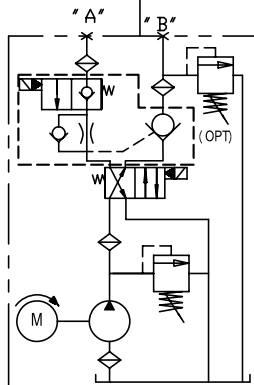
HYDRAULIC CIRCUIT 114  
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HYDRAULIC CIRCUIT 111

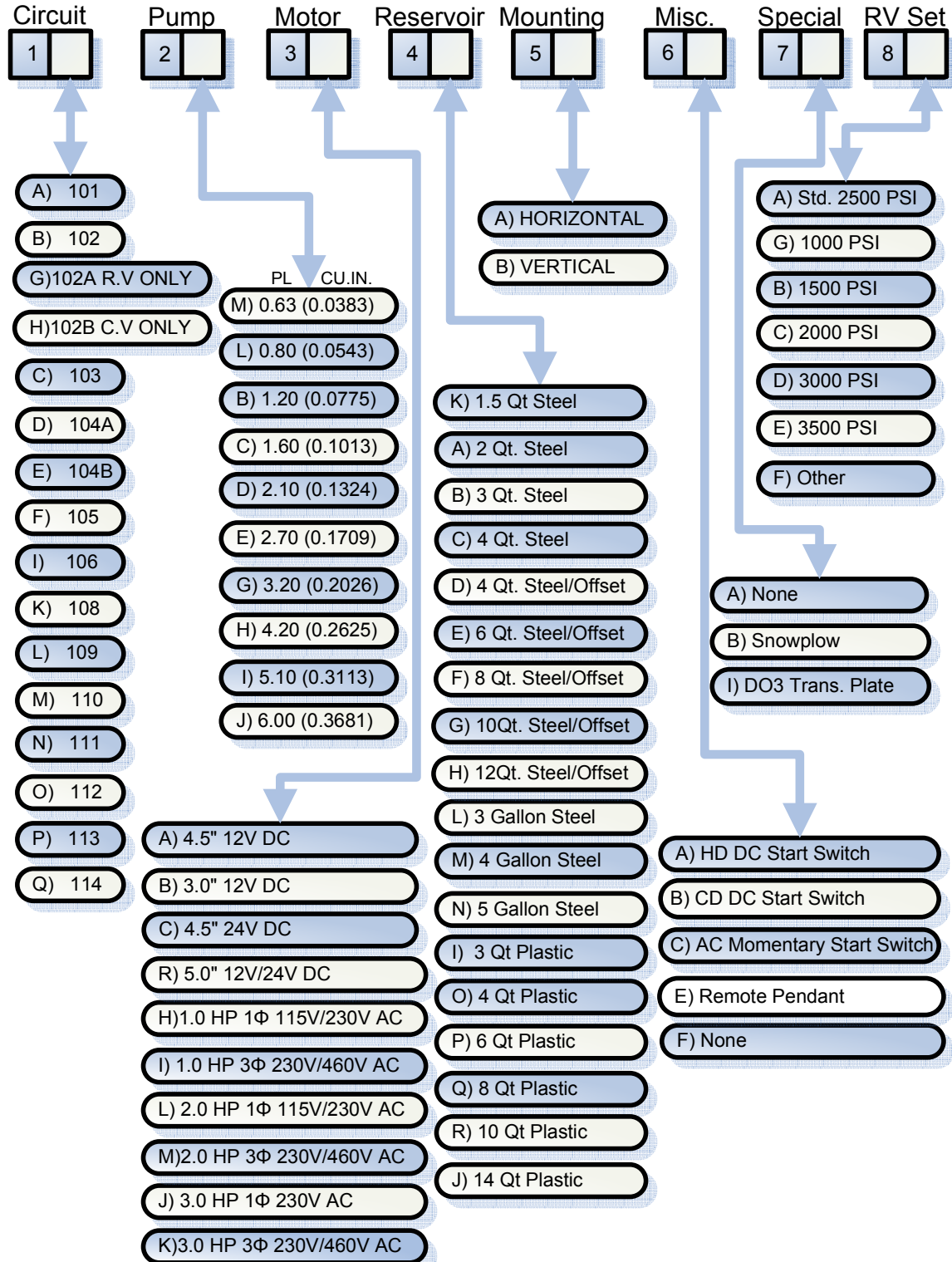


HYDRAULIC CIRCUIT 113  
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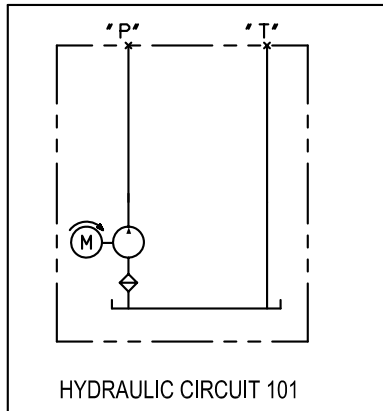


HYDRAULIC CIRCUIT 112  
 (OPTIONAL 2ND RV)

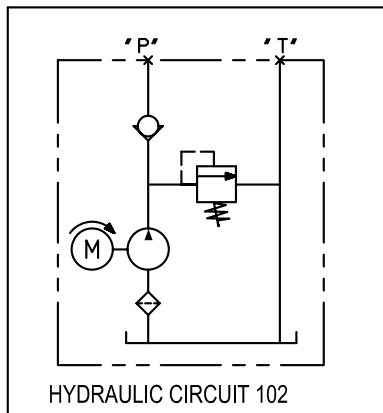
## How to order A.C and D.C Power Units



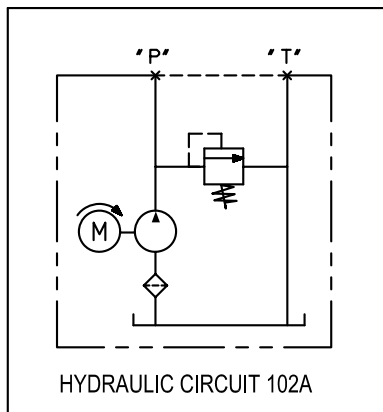
NOTE: HYDRAULIC CIRCUIT 101 TO 106 WITH UNIVERSAL MANIFOLD I



BASIC CIRCUIT ."P" AND "T" PORTS.  
 "P" AND "T" PORTS ARE #6 SAE "O" RING  
 (9/16-18) SEE PAGE11.

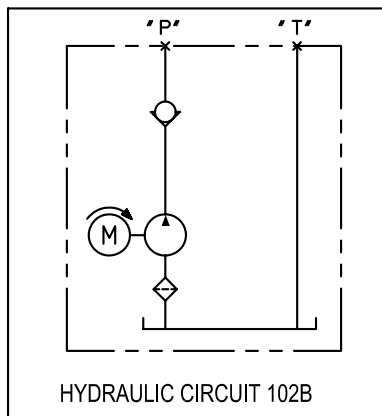


BASIC CIRCUIT WITH CHECK AND  
 RELIEF VALVE CARTRIDGES.  
 "P" AND "T" PORTS ARE #6 SAE "O" RING  
 (9/16-18). SEE PAGE 12.

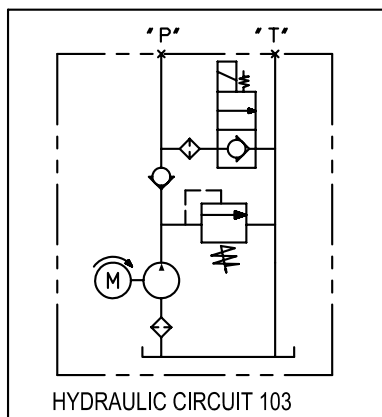


BASIC CIRCUIT WITH  
 RELIEF VALVE CARTRIDGE.  
 "P" AND "T" PORTS ARE #6 SAE "O" RING  
 (9/16-18). SEE PAGE 13.

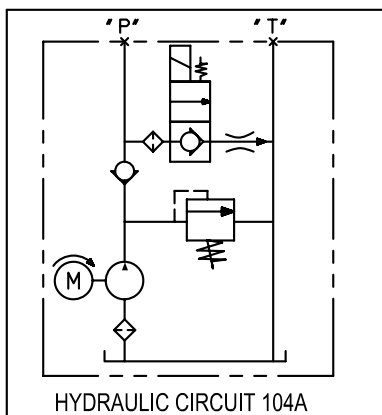
NOTE: HYDRAULIC CIRCUIT 101 TO 106 WITH UNIVERSAL MANIFOLD I



BASIC CIRCUIT WITH CHECK VALVE CARTRIDGE.  
 "P" AND "T" PORTS ARE #6 SAE "O" RING(9/16-18)  
 SEE PAGE 14.

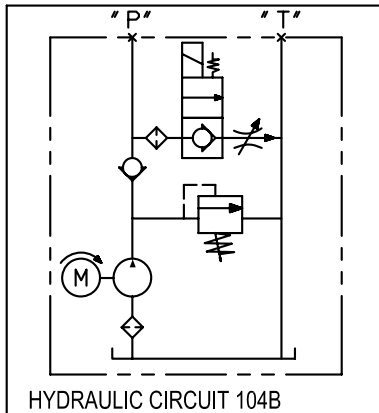


SINGLE ACTING CIRCUIT WITH CARTRIDGE CHECK, RELIEF AND SOLENOID LOWERING VALVE.  
 "P" AND "T" PORTS ARE #6 SAE "O" RING(9/16-18)  
 SEE PAGE 15.

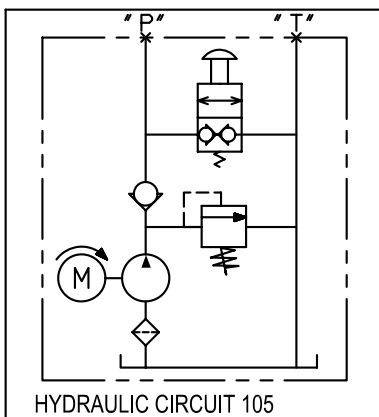


SINGLE ACTING CIRCUIT WITH CARTRIDGE CHECK, RELIEF AND SOLENOID LOWERING VALVE WITH FIXED FLOW CONTROL (NEEDLE) VALVE FOR LOWERING SPEED ADJUSTMENT.  
 "P" AND "T" PORTS ARE #6 SAE "O" RING(9/16-18)  
 SEE PAGE 16

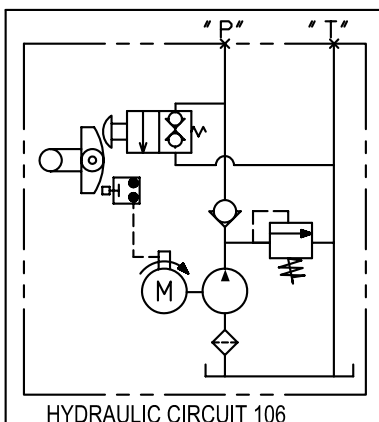
NOTE: HYDRAULIC CIRCUIT 101 TO 106 WITH UNIVERSAL MANIFOLD I



SINGLE ACTING CIRCUIT WITH CARTRIDGE CHECK, RELIEF AND SOLENOID LOWERING VALVE WITH PRESSURE COMPENSATED FLOW CONTROL FOR CONSTANT LOWERING SPEED. "P" AND "T" PORTS ARE #6 SAE "O" RING(9/16-18) SEE PAGE 17.

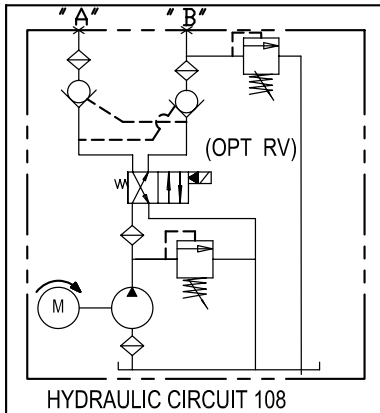


SINGLE ACTING CIRCUIT WITH CHECK, RELIEF AND MANUAL LOWERING. MANUAL LOWERING VALVE CAN BE MOTORED TO REGULATE LOWERING SPEED. "P" AND "T" PORTS ARE #6 SAE "O" RING(9/16-18) SEE PAGE 18.

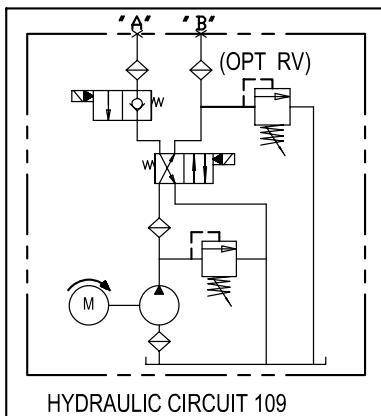


SINGLE ACTING CIRCUIT WITH CHECK, RELIEF AND MANUAL THREE POSITION VALVE. UP POSITION ACTIVATES STARTER SWITCH AND MOTOR. DOWN POSITION REGULATES LOWERING SPEED. SPRING CENTERED UNIT WILL REMAIN/RETURN TO AT REST. DC POWER UNITS ONLY. "P" AND "T" PORTS ARE #6 SAE "O" RING(9/16-18) SEE PAGE 19.

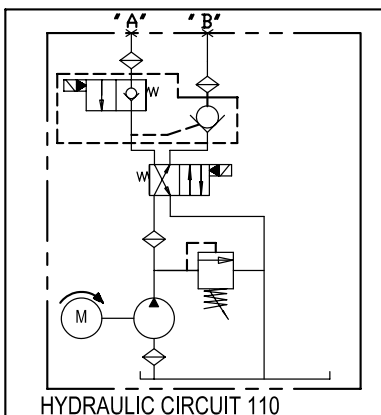
NOTE: HYDRAULIC CIRCUIT 108 TO 114 WITH UNIVERSAL MANIFOLD II



DOUBLE ACTING FOR POWER UP, POWER DOWN OPERATION WITH DUAL PILOT OPERATED CHECK VALVE, 4WAY VALVE AND RELIEF VALVE .  
 OPTIONAL SECONDARY RELIEF VALVE.  
 "A" AND "B" CYLINDER PORTS ARE #6 SAE "O" RING(9/16-18)  
 SEE PAGE 20.

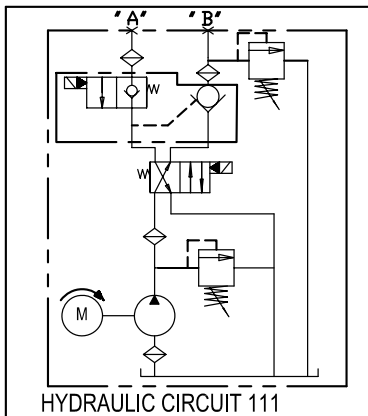


DOUBLE ACTING FOR POWER UP, POWER DOWN OPERATION WITH 4WAY VALVE RELIEF VALVE AND NC 2WAY VALVE.  
 OPTIONAL SECONDARY RELIEF VALVE.  
 "A" AND "B" CYLINDER PORTS ARE #6 SAE "O" RING(9/16-18)  
 SEE PAGE 21.

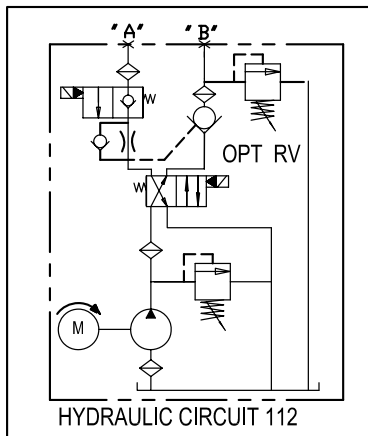


DOUBLE ACTING FOR POWER UP, POWER DOWN OPERATION WITH 4WAY VALVE, RELIEF VALVE AND PATENT PENDING NC 2 WAY W/SINGLE PILOT OPERATION CHECK VALVE CARTRIDGE.  
 OPTIONAL SECONDARY RELIEF VALVE.  
 "A" AND "B" CYLINDER PORTS ARE #6 SAE "O" RING(9/16-18)  
 SEE PAGE 22.

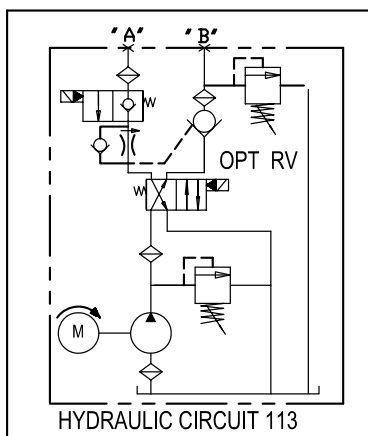
NOTE: HYDRAULIC CIRCUIT 108 TO 114 WITH UNIVERSAL MANIFOLD II



DOUBLE ACTING CIRCUIT FOR POWER UP, POWER DOWN OPERATION WITH 4WAY VALVE RELIEF VALVE AND PATENT PENDING NC 2WAY/PILOT CHECK VALVE CARTRIDGE. (WITH RELIEF VALVE ON "B" PORT)  
 "A" AND "B" CYLINDER PORTS ARE #6 SAE "O" RING(9/16-18)  
 SEE PAGE 23.

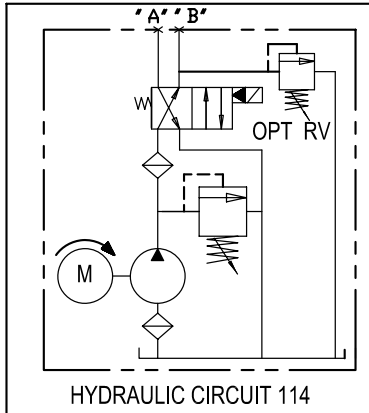


DOUBLE ACTING CIRCUIT FOR POWER UP, POWER DOWN OPERATION WITH 4WAY VALVE, RELIEF VALVE AND PATENT PENDING NC 2 WAY/PILOT CHECK VALVE CARTRIDGE, WITH FIXED FLOW CONTROL VALVE ON THE RETURN FLOW AT "A" PORT. OPTIONAL SECONDARY RELIEF VALVE.  
 "A" AND "B" CYLINDER PORTS ARE #6 SAE "O" RING(9/16-18)  
 SEE PAGE 24.



DOUBLE ACTING POWER UP, POWER DOWN OPERATION WITH 4WAY VALVE, RELIEF VALVE AND PATENT PENDING NC 2 WAY/PILOT CHECK VALVE CARTRIDGE.  
 PRESSURE COMPENSATED FLOW CONTROL VALVE ON THE RETURN FLOW AT "A" PORT. OPTIONAL SECONDARY RELIEF VALVE.  
 "A" AND "B" CYLINDER PORTS ARE #6 SAE "O" RING(9/16-18)  
 SEE PAGE 25.

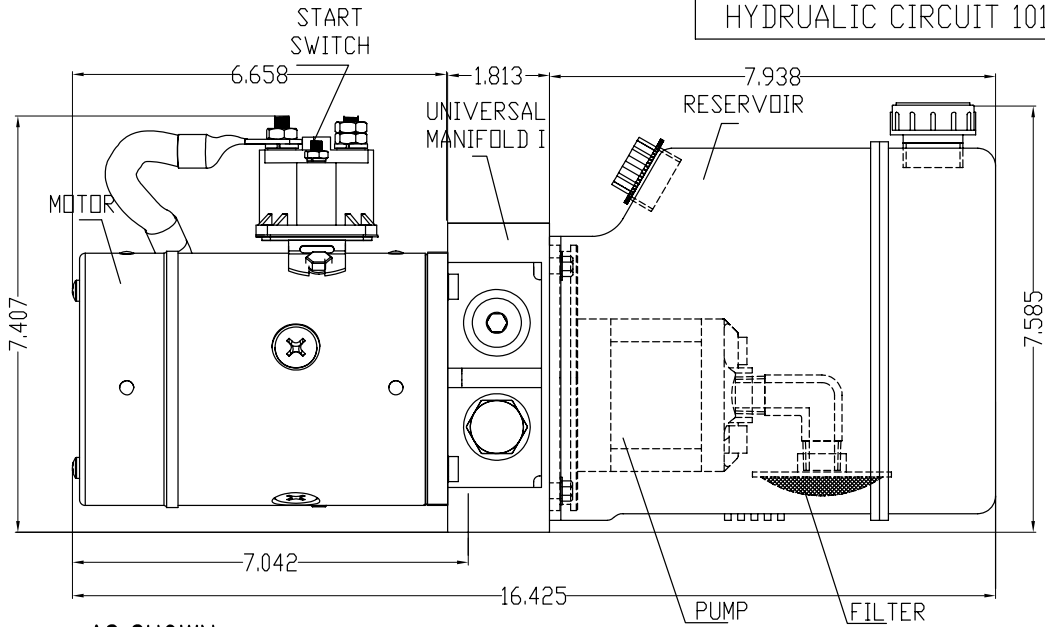
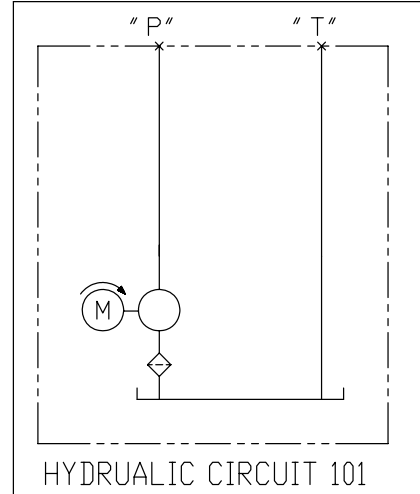
NOTE: HYDRAULIC CIRCUIT 108 TO 114 WITH UNIVERSAL MANIFOLD II



POWER UP, POWER DOWN WITH 4WAY AND  
RELIEF VALVE .  
OPTIONAL SECONDARY RELIEF VALVE.  
"A" AND "B" CYLINDER PORTS ARE  
#6 SAE "O" RING(9/16-18)  
SEE PAGE 26.

**Description:**

BASIC CIRCUIT. "P" AND "T" PORTS.  
 "P" AND "T" PORTS ARE #6 SAE "O"  
 RING (9/16-18)

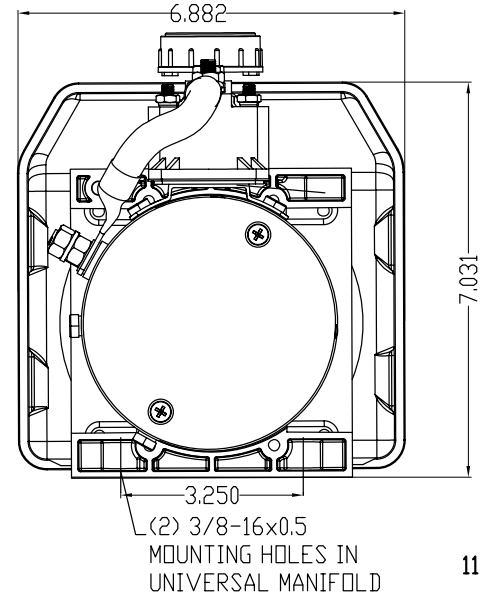


**AS SHOWN:**

MOTOR: 4.5" 12V DC      RESERVOIR: 3 QT. PLASTIC  
 PUMP: PL SERIES      OPTION: HD 12V DC START SWITCH

**CIRCUIT 101**

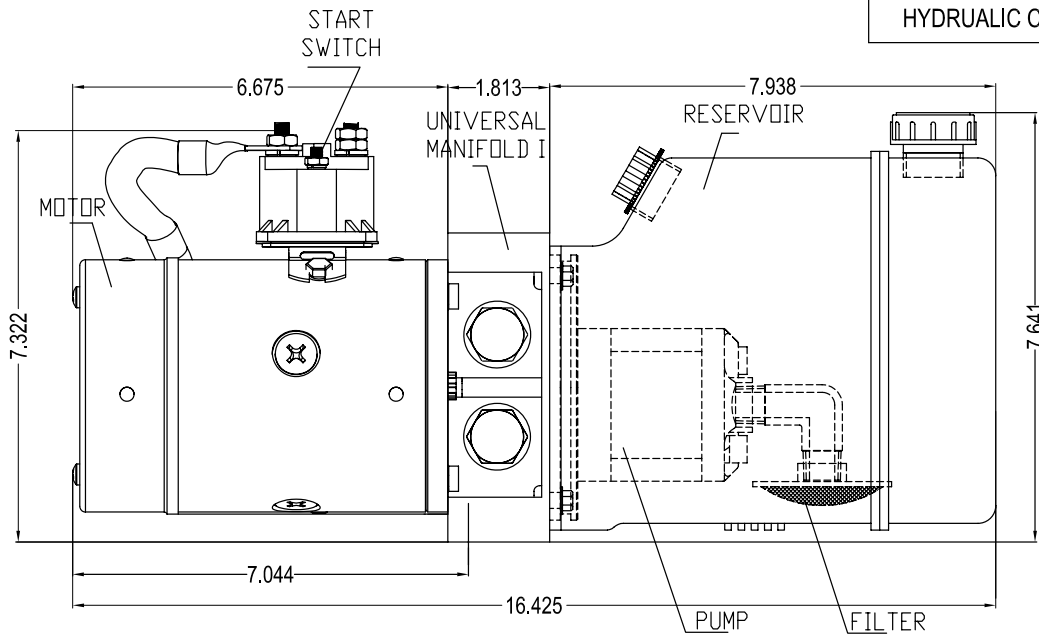
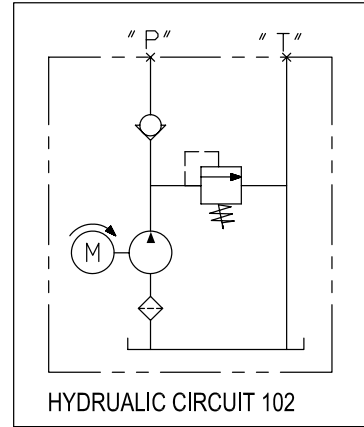
<b>PUMP</b>	<b>MOTOR</b>	<b>RESERVOIR</b>	<b>MOUNTING</b>
PL    CU,IN	3.0" 12V DC	STEEL RESERVOIR	HORIZONTAL
0.6   0.0384	4.5" 12V DC	1.5 QT	VERTICAL
	4.5" 24V DC	5 GAL	
5.8   0.3593	5.0" 24V DC	PLASTIC RESERVOIR	<b>MISC</b>
	1 HP -3 HP AC	2 QT	DC START SWITCH
		12 QT	



FOR OPTION / HOW TO ORDER SEE PAGE 4

**Description:**

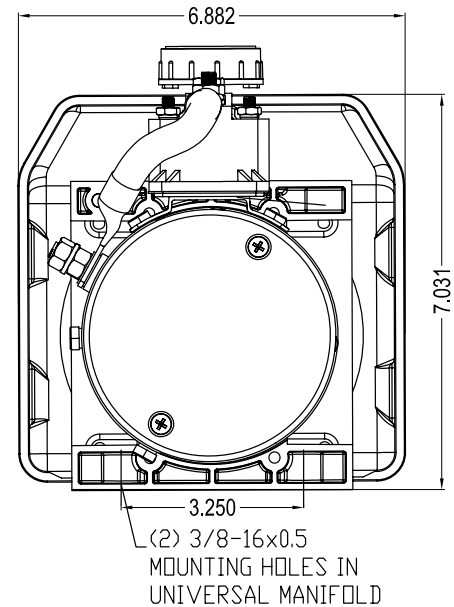
BASIC CIRCUIT WITH CHECK AND  
 RELIEF VALVE CARTRIDGES.  
 "P" AND "T" PORTS ARE  
 #6 SAE "O" RING(9/16-18)



AS SHOWN:  
 MOTOR: 4.5" 12V DC      RESERVOIR: 3 QT. PLASTIC  
 PUMP: PL SERIES      OPTION: HD 12V DC START SWITCH

**CIRCUIT 102**

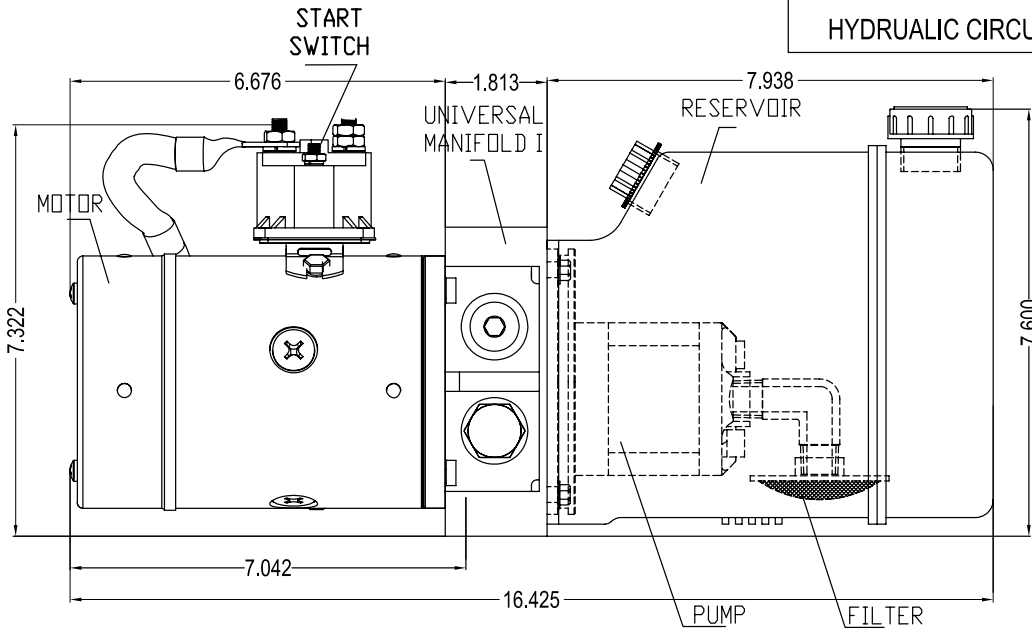
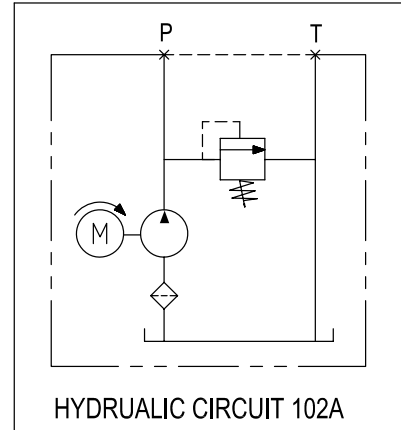
PUMP		MOTOR	RESERVOIR	MOUNTING
PL	CU.IN	3.0" 12V DC	STEEL RESERVOIR	HORIZONTAL
0.6	0.0384	4.5" 12V DC	1.5 QT	VERTICAL
		4.5" 24V DC	5 GAL	
5.8	0.3593	5.0" 24V DC	PLASTIC RESERVOIR	
		1 HP -3 HP AC	2 QT	MISC
			12 QT	DC START SWITCH



FOR OPTION / HOW TO ORDER SEE PAGE 4

**Description:**

BASIC CIRCUIT WITH  
 RELIEF VALVE CARTRIDGE.  
 "P" AND "T" PORTS ARE  
 #6 SAE "O" RING(9/16-18)

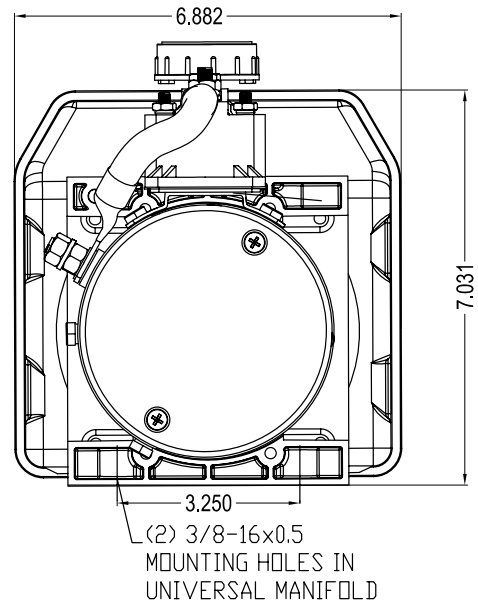


**AS SHOWN:**

MOTOR: 4.5" 12V DC    RESERVOIR: 3 QT. PLASTIC  
 PUMP: PL SERIES    OPTION: HD 12V DC START SWITCH

**CIRCUIT 102A**

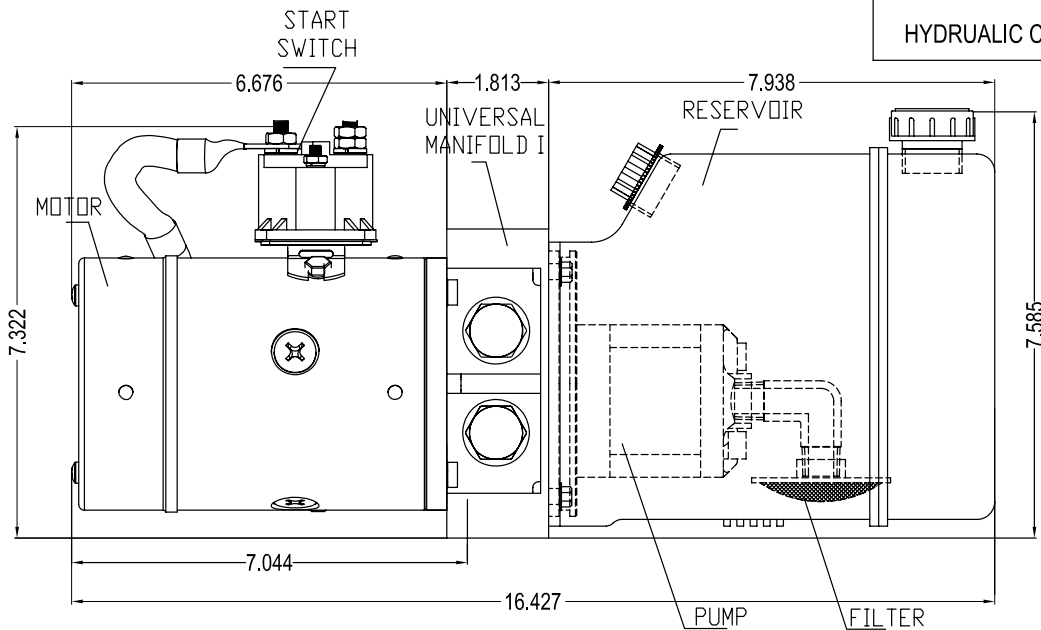
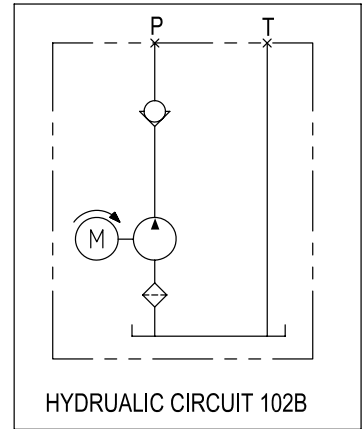
PUMP	MOTOR	RESERVOIR	MOUNTING
PL	3.0" 12V DC	STEEL RESERVOIR	HORIZONTAL
0.6	4.5" 12V DC	1.5 QT	VERTICAL
0.0384	4.5" 24V DC	5 GAL	
	5.0" 24V DC	PLASTIC RESERVOIR	
5.8	1 HP -3 HP AC	2 QT	MISC
0.3593		12 QT	DC START SWITCH



FOR OPTION / HOW TO ORDER SEE PAGE 4

**Description:**

BASIC CIRCUIT WITH  
 CHECK VALVE CARTRIDGE.  
 "P" AND "T" PORTS ARE  
 #6 SAE "O" RING(9/16-18)



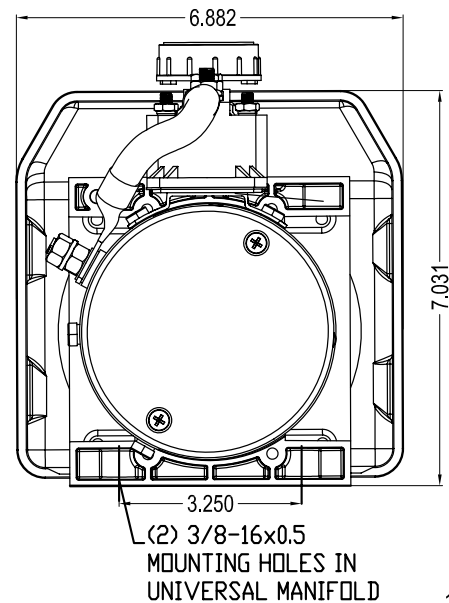
**AS SHOWN:**

MOTOR: 4.5" 12V DC      RESERVOIR: 3 QT. PLASTIC  
 PUMP: PL SERIES      OPTION: HD 12V DC START SWITCH

**CIRCUIT 102B**

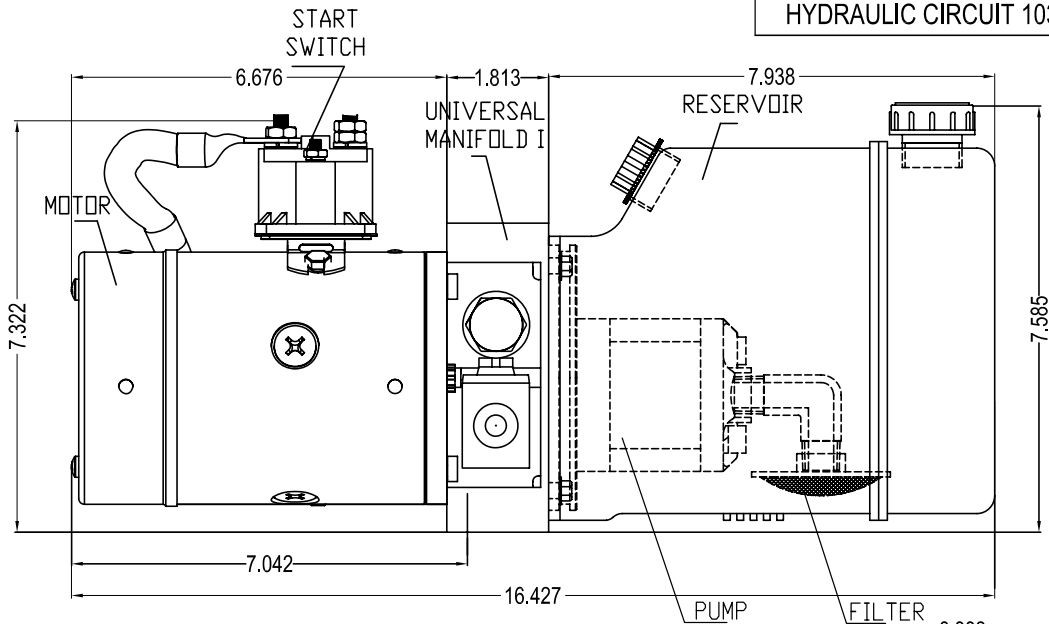
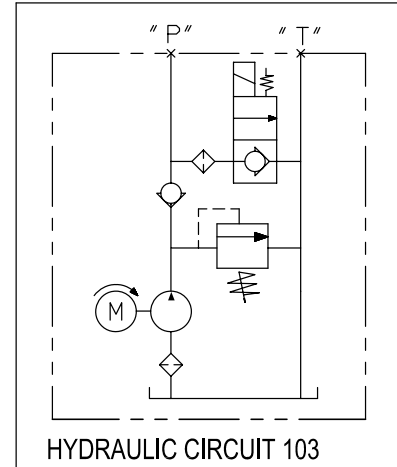
PUMP		MOTOR	RESERVOIR	MOUNTING	MISC
PL	CU. IN	3.0" 12V DC	STEEL RESERVOIR	HORIZONTAL	
0.6	0.0384	4.5" 12V DC	1.5 QT	VERTICAL	
		4.5" 24V DC	5 GAL		
5.8	0.3593	5.0" 24V DC	PLASTIC RESERVOIR		DC START SWITCH
		1 HP -3 HP AC	2 QT		
			12 QT		

FOR OPTION / HOW TO ORDER SEE PAGE 4



**Description:**

SINGLE ACTING CIRCUIT WITH  
 CARTRIDGE CHECK, RELIEF AND  
 SOLENOID LOWERING VALVE  
 "P" AND "T" PORTS ARE  
 #6 SAE "O" RING (9/16-18)

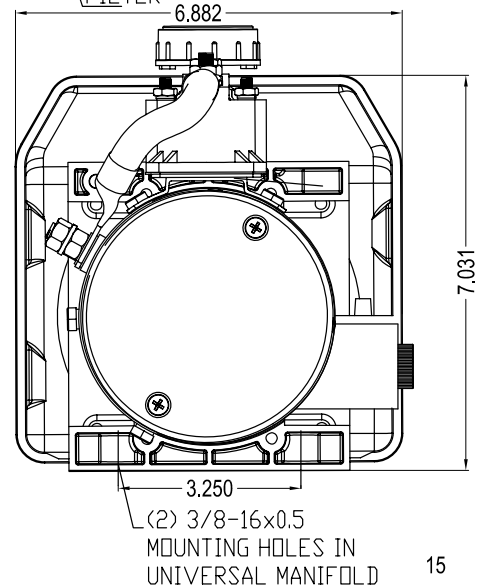


**AS SHOWN:**

MOTOR: 4.5" 12V DC      RESERVOIR: 3 QT. PLASTIC  
 PUMP: PL SERIES      OPTION: HD 12V DC START SWITCH

**CIRCUIT 103**

PUMP		MOTOR	RESERVOIR	MOUNTING	COIL VOLTAGE
PL	CU.IN	3.0" 12V DC	STEEL RESERVOIR	HORIZONTAL	12VDC
0.6	0.0384	4.5" 12V DC	1.5 QT	VERTICAL	24VDC
		4.5" 24V DC			24VAC
5.8	0.3593	5.0" 24V DC	5 GAL	MISC	110VAC
		1 HP -3 HP AC	PLASTIC RESERVOIR	DC START SWITCH	220VAC
			2 QT		
			12 QT		

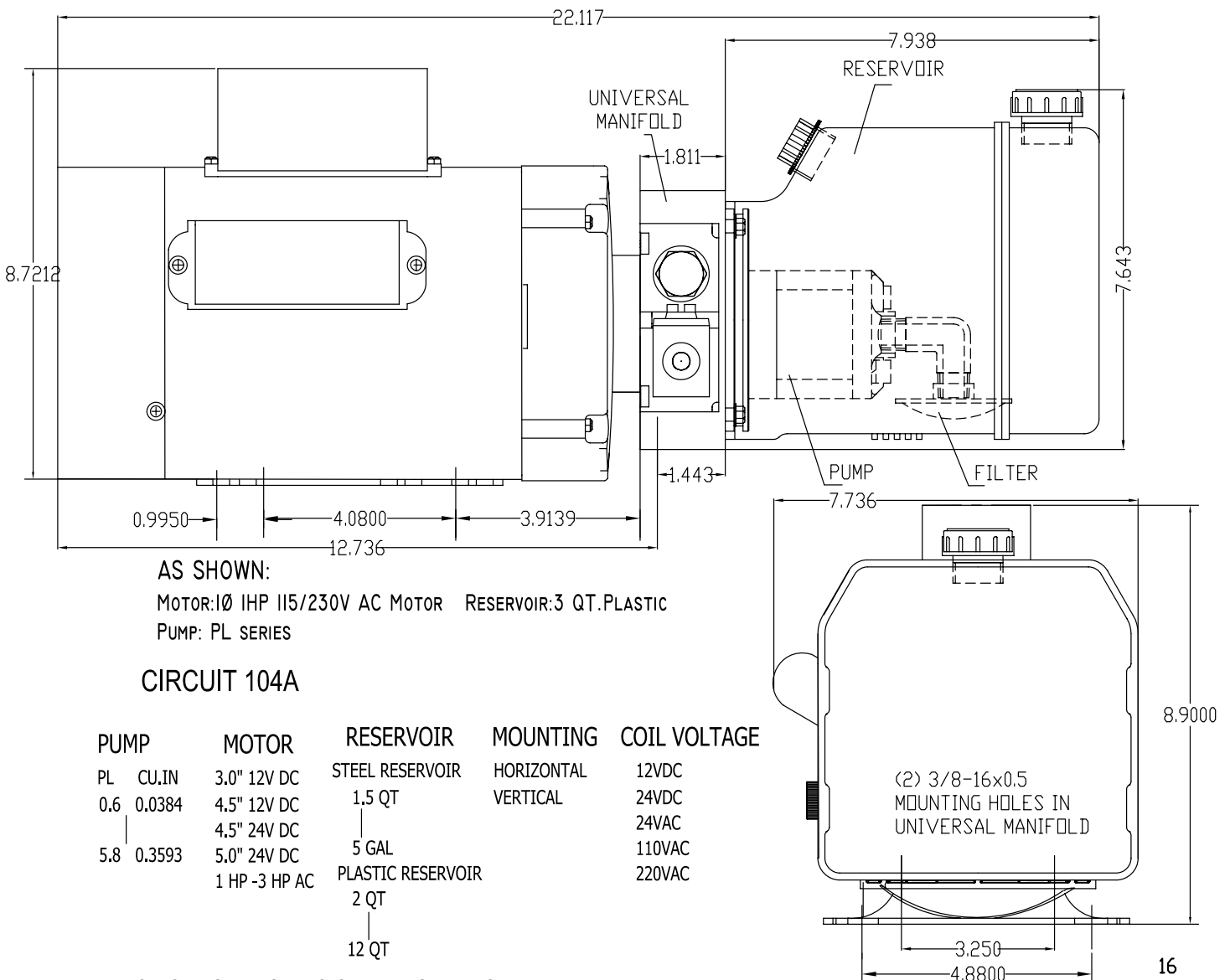
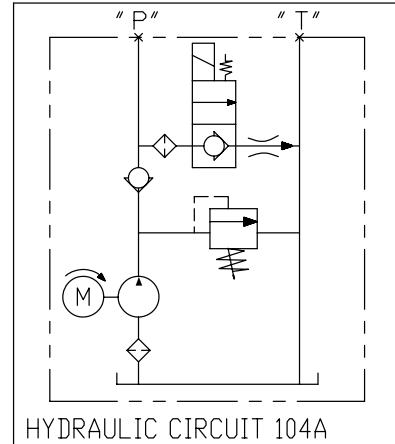


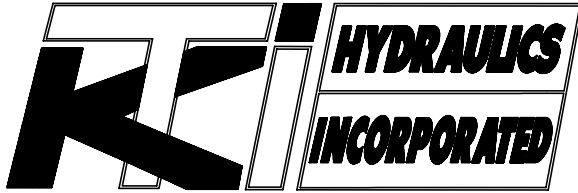
FOR OPTION / HOW TO ORDER SEE PAGE 4

**Description:**

SINGLE ACTING CIRCUIT WITH CARTRIDGE CHECK, RELIEF AND SOLENOID LOWERING VALVE WITH FIXED FLOW CONTROL (NEEDLE) VALVE FOR LOWERING SPEED ADJUSTMENT.

"P" AND "T" PORTS ARE #6 SAE "O" RING (9/16-18)



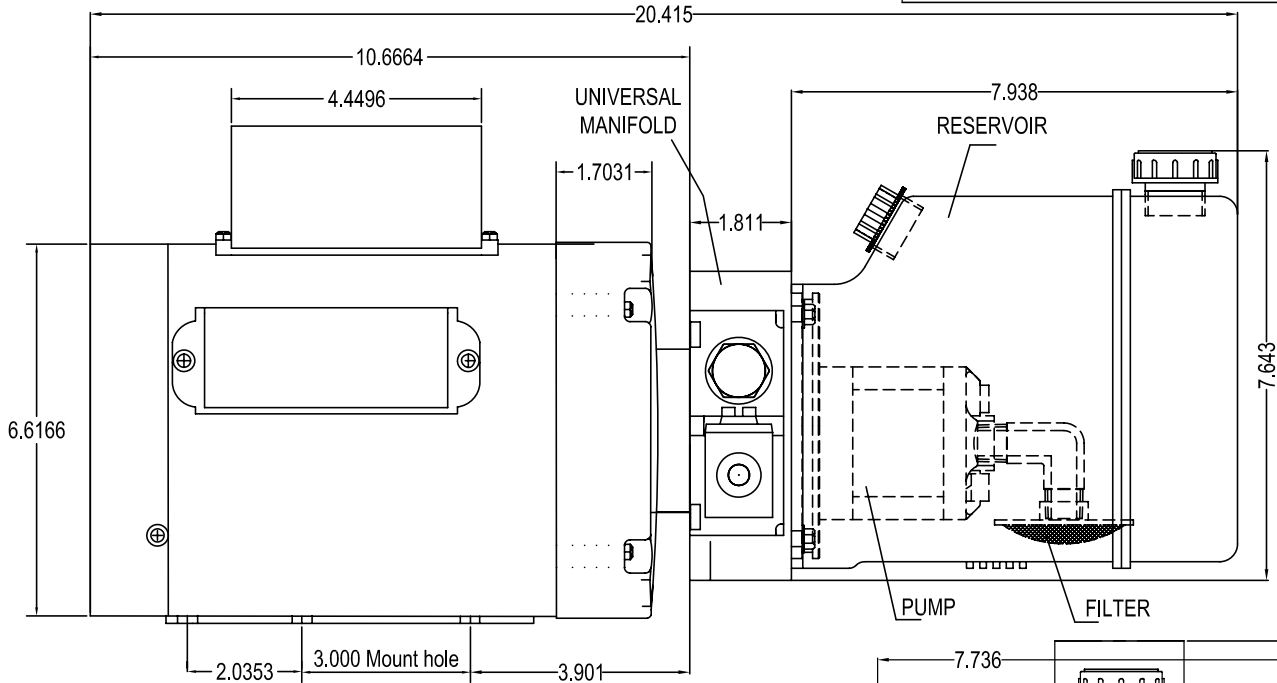
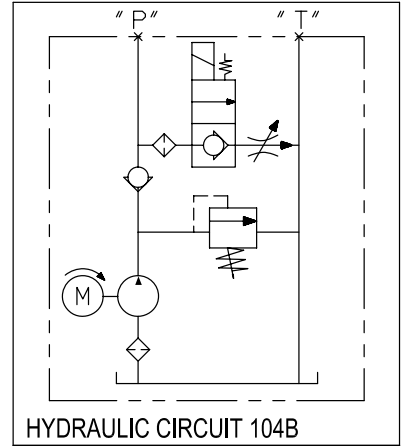


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 www.ktihydraulicsusa.com

**Description:**

SINGLE ACTING CIRCUIT WITH CARTRIDGE CHECK, RELIEF AND SOLENOID LOWERING VALVE WITH PRESSURE COMPENSATED FLOW CONTROL FOR CONSTANT LOWERING SPEED.

"P" AND "T" PORTS ARE #6 SAE "O" RING(9/16-18)



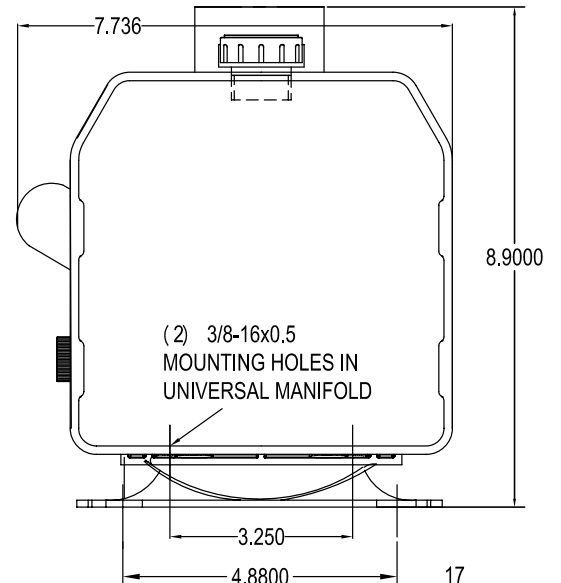
**AS SHOWN:**

MOTOR: 1Ø IHP 115/230V AC MOTOR    RESERVOIR: 3 QT. PLASTIC  
 PUMP: PL SERIES

**CIRCUIT 104A**

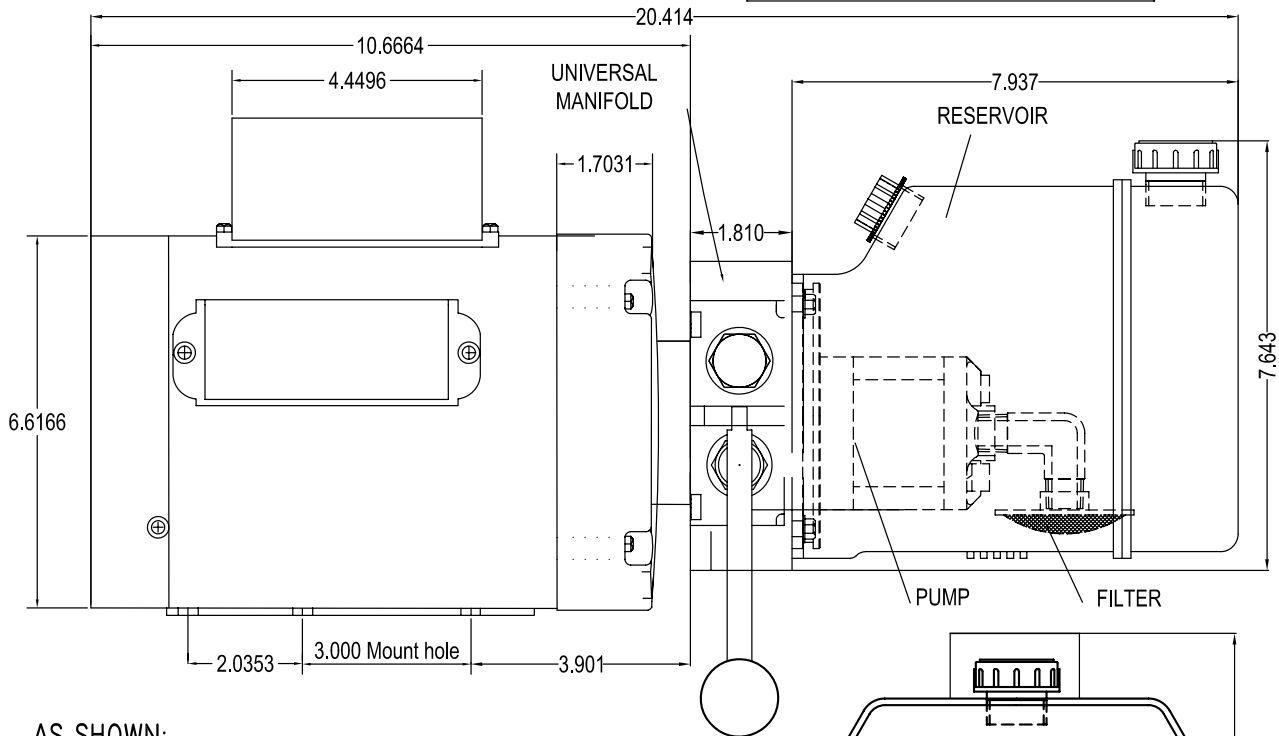
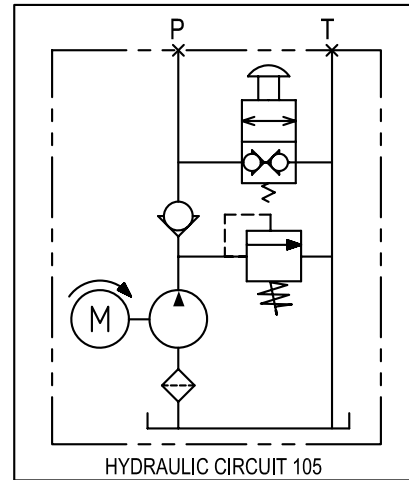
PUMP	MOTOR	RESERVOIR	MOUNTING	COIL VOLTAGE
PL	CU. IN	STEEL RESERVOIR	HORIZONTAL	12VDC
0.6	0.0384	1.5 QT	VERTICAL	24VDC
		5 GAL		24VAC
5.8	0.3593	PLASTIC RESERVOIR		110VAC
		2 QT		220VAC
		12 QT		

FOR OPTION / HOW TO ORDER SEE PAGE 4



**Description:**

BASIC CIRCUIT WITH CHECK, RELIEF VALVE AND MANUAL LOWERING.  
 MANUAL LOWERING VALVE CAN BE METERED TO REGULATE LOWERING SPEED.  
 "P" AND "T" PORTS ARE #6 SAE "O" RING (9/16-18)

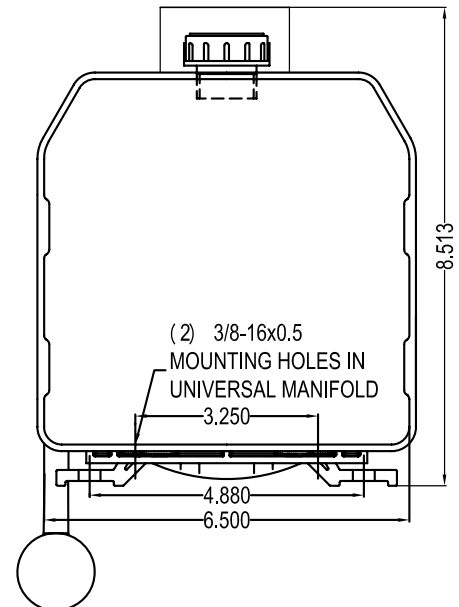


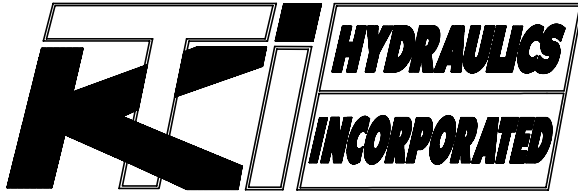
**AS SHOWN:**

MOTOR: 1Ø IHP 115/230V AC MOTOR    RESERVOIR: 3QT. PLASTIC  
 PUMP: PL SERIES

**CIRCUIT 105**

PUMP		MOTOR	RESERVOIR	MOUNTING HORIZONTAL VERTICAL
PL	CU.IN	3.0" 12V DC	STEEL RESERVOIR	
0.6	0.0384	4.5" 12V DC	1.5 QT	
		4.5" 24V DC	5 GAL	
5.8	0.3593	5.0" 24V DC	PLASTIC RESERVOIR	
		1 HP -3 HP AC	2 QT	
			12 QT	

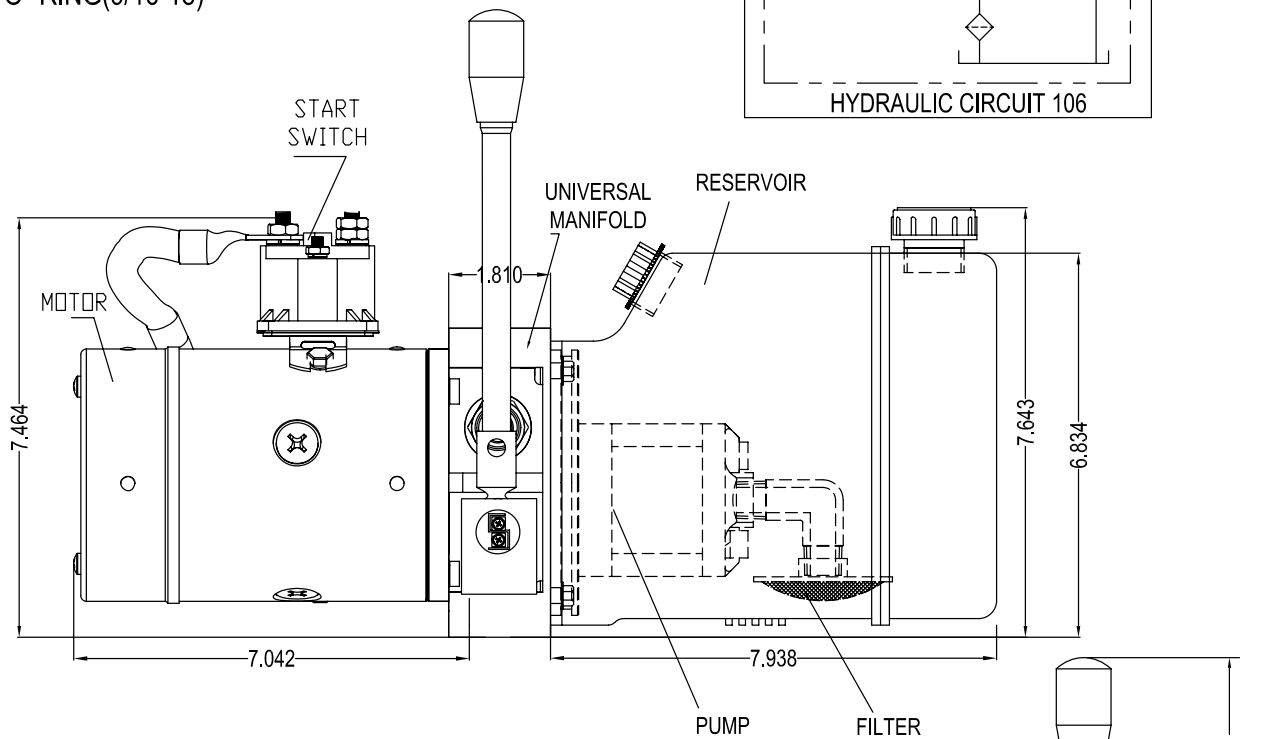
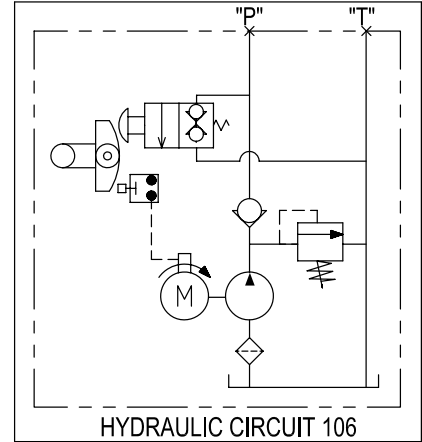




3195 D Airport Loop  
 Costa Mesa, CA 92626  
 Tel. 714.556.8818 Fax 714.556.1520  
 www.ktihydraulicsusa.com

**Description:**

BASIC CIRCUIT WITH CHECK, RELIEF VALVE AND MANUAL THREE POSITION VALVE. UP POSITION ACTIVATES STARTER SWITCH AND MOTOR. DOWN POSITION REGULATES LOWERING SPEED. SPRING CENTERED UNIT WILL REMAIN/RETURN TO AT REST POSITION. DC POWER UNITS ONLY. "P" AND "T" PORTS ARE #6 SAE "O" RING (9/16-18)



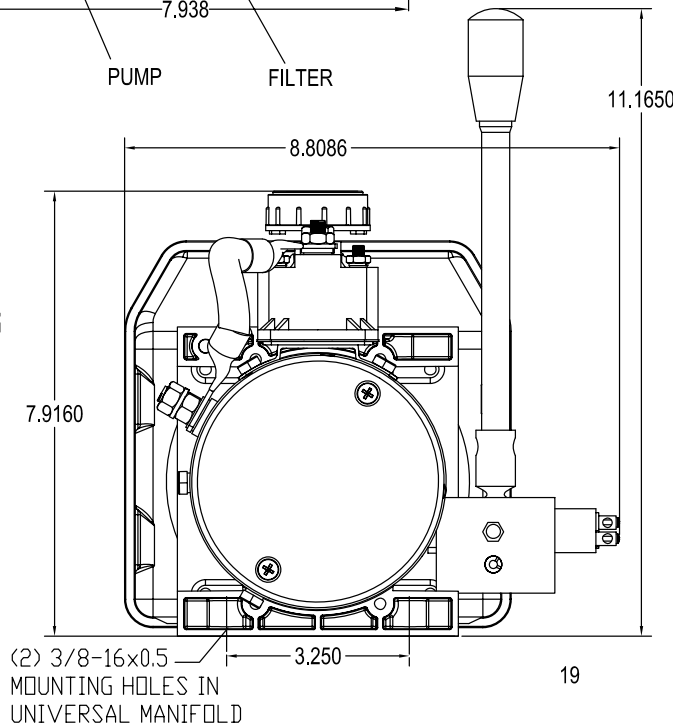
**AS SHOWN:**

MOTOR: 4.5" 12V DC    RESERVOIR: 5 QT. PLASTIC  
 PUMP: PL SERIES    OPTION: HD 12V DC START SWITCH

**CIRCUIT 108**

PUMP	MOTOR	RESERVOIR	MOUNTING
PL CU.IN	3.0" 12V DC	STEEL RESERVOIR	HORIZONTAL
0.6 0.0384	4.5" 12V DC	1.5 QT	VERTICAL
5.8 0.3593	4.5" 24V DC	5 GAL	
	5.0" 24V DC	PLASTIC RESERVOIR	
		2 QT	
		12 QT	

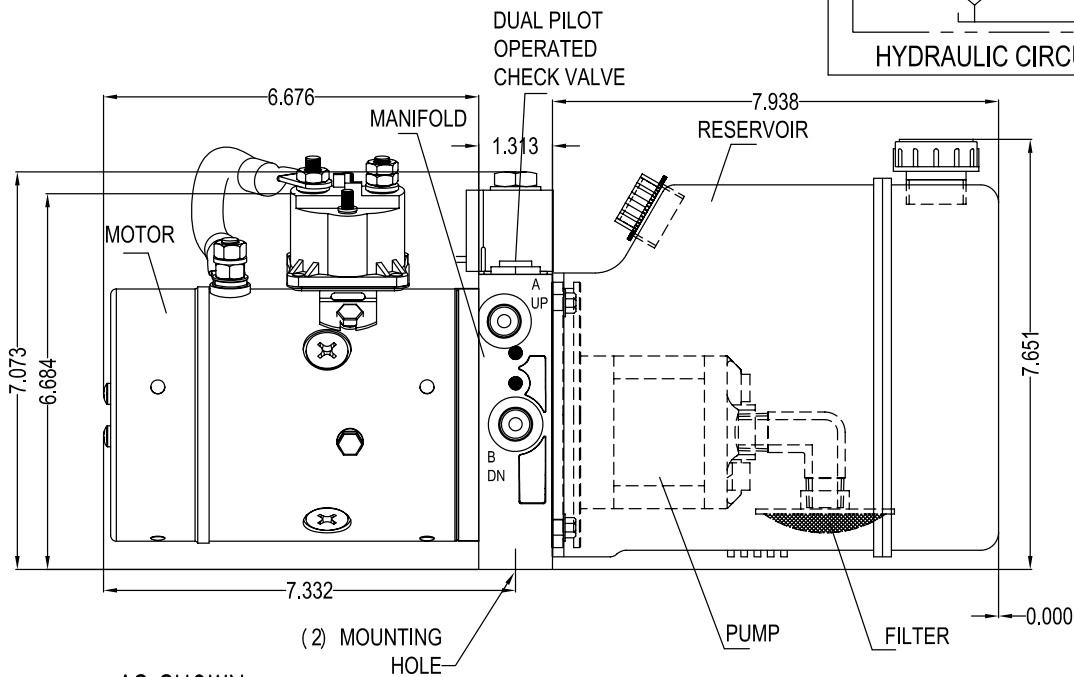
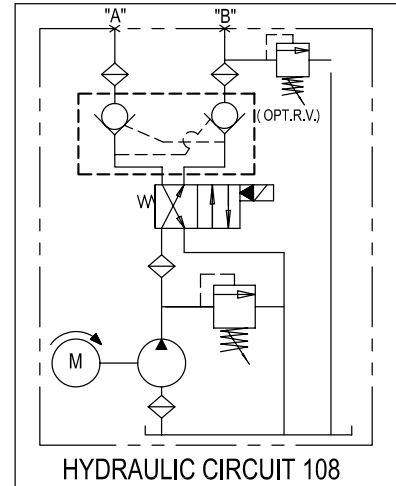
FOR OPTION / HOW TO ORDER SEE PAGE 4



(2) 3/8-16x0.5 MOUNTING HOLES IN UNIVERSAL MANIFOLD

**Description:**

DOUBLE ACTING CIRCUIT FOR POWER UP  
 POWER DOWN OPERATION WITH DUAL PILOT  
 OPERATED CHECK VALVE ,4WAY VALVE AND RELIEF  
 VALVE ,OPTIONAL SECONDARY RELIEF VALVE .  
 "A" AND "B" CYLINDER PORTS ARE  
 #6 SAE "O" RING(9/16-18)



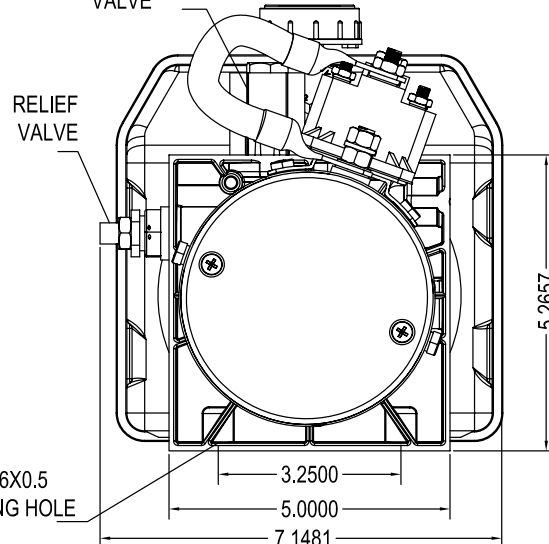
**AS SHOWN:**

MOTOR: 4.5" 12V DC      RESERVOIR: 1.3 QT. PLASTIC  
 PUMP: PL SERIES      OPTION: HD 12V DC START SWITCH

4 WAY 2 POSITION  
 DIRECTIONAL CONTROL  
 VALVE

**CIRCUIT 108**

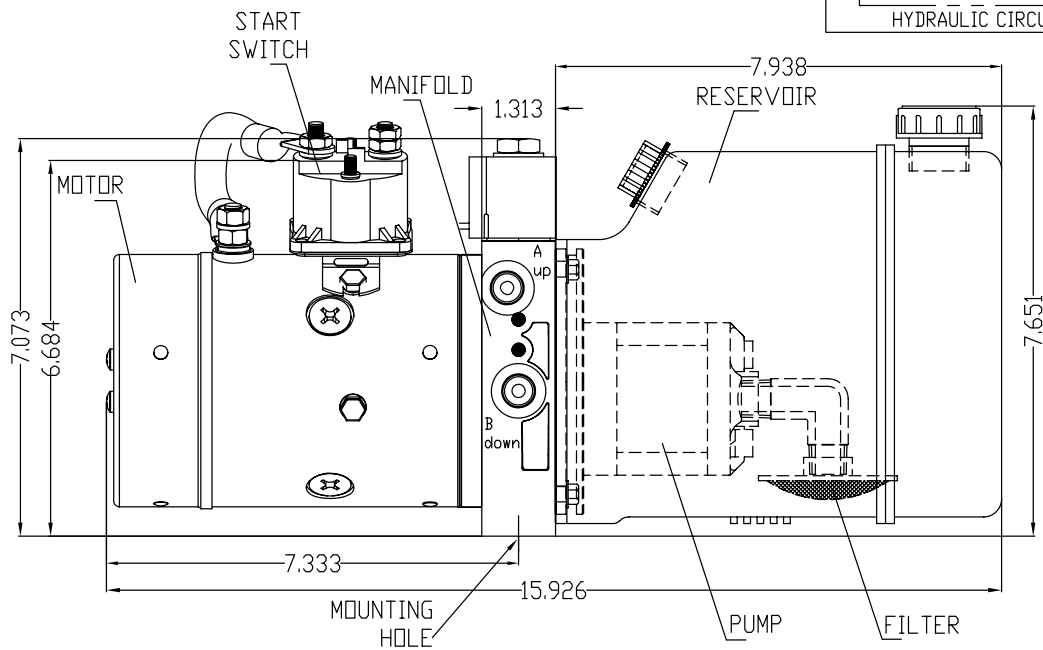
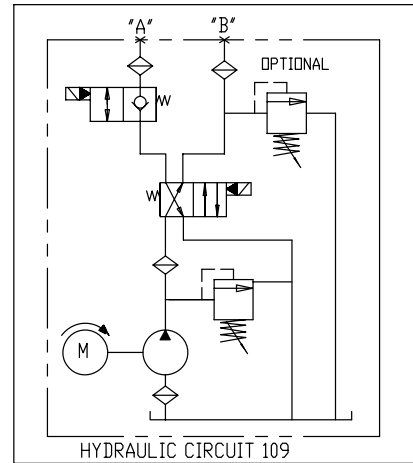
<b>PUMP</b>	<b>MOTOR</b>	<b>RESERVOIR</b>	<b>MOUNTING</b>	<b>RELIEF VALVE</b>
PL CU.IN	3.0" 12V DC	STEEL RESERVOIR	HORIZONTAL	
0.6 0.0384	4.5" 12V DC	1.5 QT	VERTICAL	
5.8 0.3593	4.5" 24V DC	5 GAL	<b>MISC</b>	
		PLASTIC RESERVOIR	DC START SWITCH	
		2 QT		
		12 QT		



FOR OPTION / HOW TO ORDER SEE PAGE 4

**Description:**

DOUBLE ACTING CIRCUIT FOR POWER UP  
 POWER DOWN OPERATION WITH 4WAY VALVE  
 RELIEF VALVE AND NC 2WAY VALVE  
 OPTIONAL SECONDARY RELIEF VALVE.  
 "A" AND "B" CYLINDER PORTS ARE  
 #6 SAE "O" RING(9/16-18)



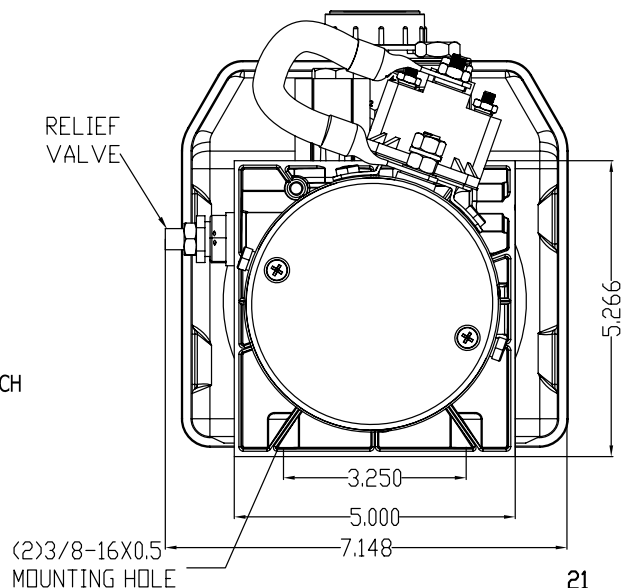
**AS SHOWN:**

MOTOR: 4.5" 12V DC      RESERVOIR: 3 QT. PLASTIC  
 PUMP: PL SERIES      OPTION: HD 12V DC START SWITCH

**CIRCUIT 109**

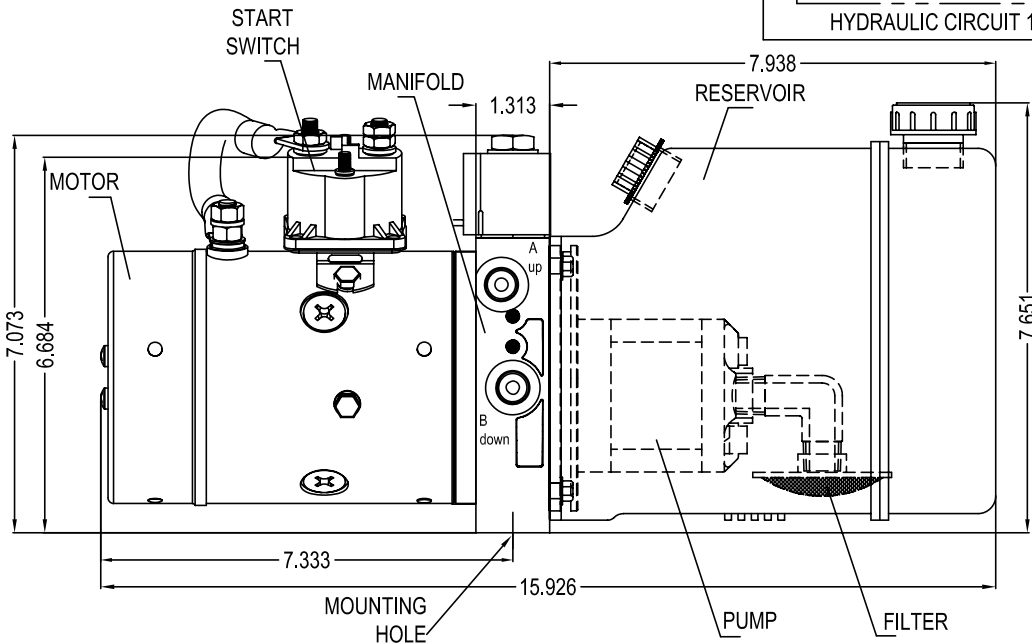
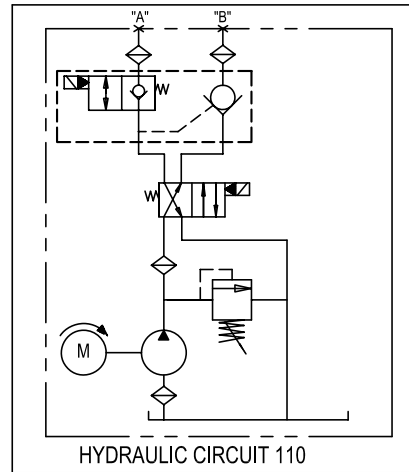
PUMP		MOTOR	RESERVOIR	MOUNTING
PL	CJ.IN	3.0" 12V DC	STEEL RESERVOIR	HORIZONTAL
0.6	0.0384	4.5" 12V DC	1.5 QT	VERTICAL
5.8	0.3593	4.5" 24V DC	5 GAL	
			PLASTIC RESERVOIR	
			2 QT	MISC
			12 QT	DC START SWITCH

FOR OPTION / HOW TO ORDER SEE PAGE 4



**Description:**

DOUBLE ACTING CIRCUIT FOR POWER UP  
 POWER DOWN OPERATION WITH 4WAY  
 VALVE, RELIEF VALVE AND PATENT PENDING  
 NC 2 WAY W/ SINGLE PILOT OPERATED  
 CHECK VALVE CARTRIDGE, OPTIONAL  
 SECONDARY RELIEF VALVE.  
 "A" AND "B" CYLINDER PORTS ARE  
 #6 SAE "O" RING(9/16-18)



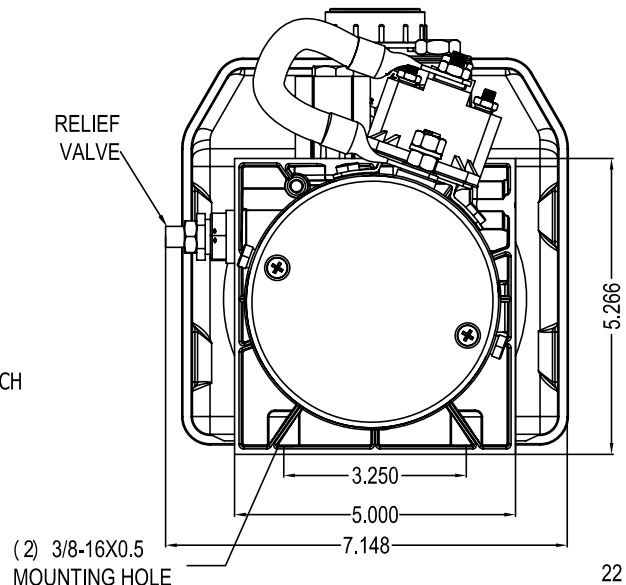
**AS SHOWN:**

MOTOR: 4.5" 12V DC      RESERVOIR: 3 QT. PLASTIC  
 PUMP: PL SERIES      OPTION: HD 12V DC START SWITCH

**CIRCUIT 109**

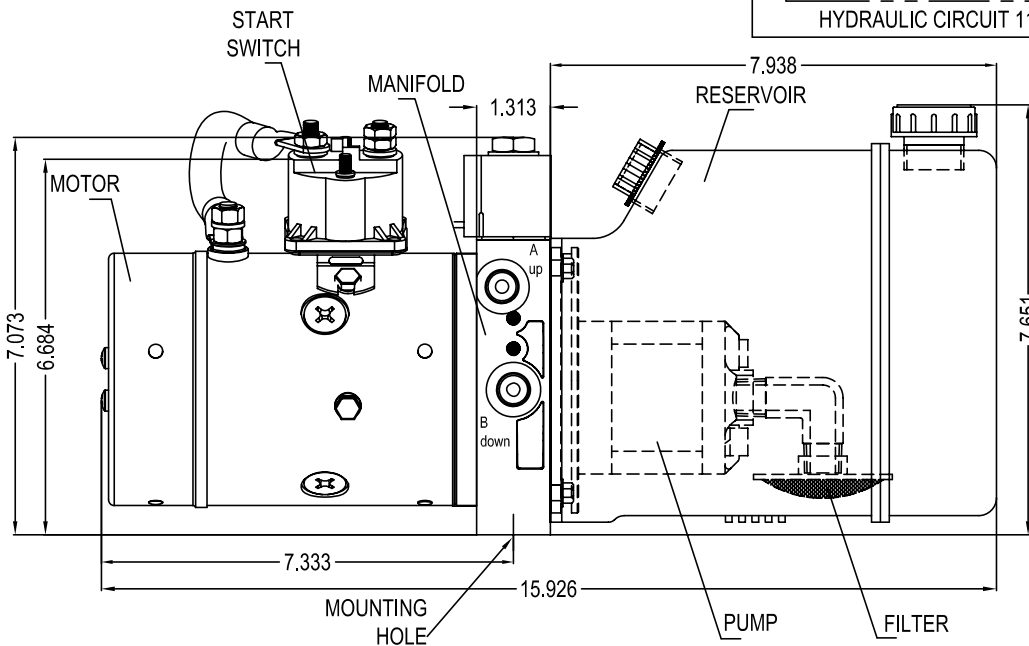
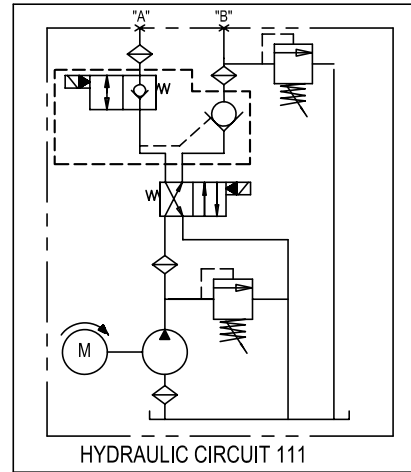
<b>PUMP</b>	<b>MOTOR</b>	<b>RESERVOIR</b>	<b>MOUNTING</b>
PL CU.IN	3.0" 12V DC	STEEL RESERVOIR	HORIZONTAL
0.6 0.0384	4.5" 12V DC	1.5 QT	VERTICAL
5.8 0.3593	4.5" 24V DC	5 GAL	<b>MISC</b>
		PLASTIC RESERVOIR	DC START SWITCH
		2 QT	
		12 QT	

FOR OPTION / HOW TO ORDER SEE PAGE 4



**Description:**

DOUBLE ACTING CIRCUIT FOR POWER UP  
 POWER DOWN OPERATION WITH 4WAY VALVE  
 RELIEF VALVE AND PATENT PENDING NC  
 2WAY/PILOT CHECK VALVE CARTRIDGE.  
 (WITH RELIEF VALVE ON "B" PORT)  
 "A" AND "B" CYLINDER PORTS ARE  
 #6 SAE "O" RING(9/16-18)



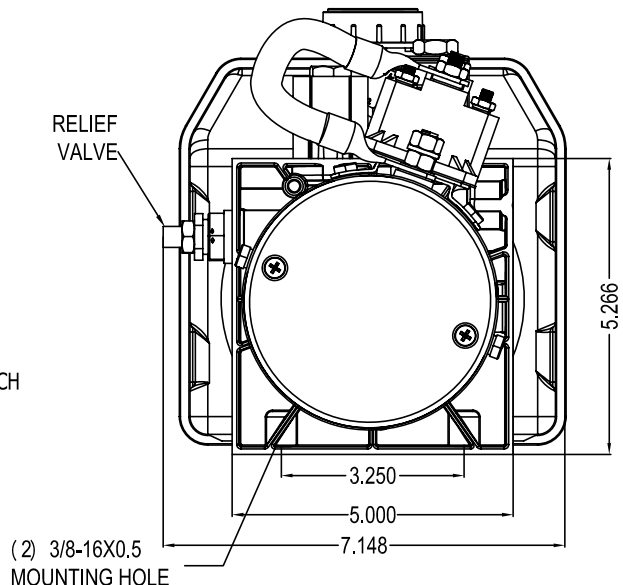
**AS SHOWN:**

MOTOR: 4.5" 12V DC      RESERVOIR: 3 QT. PLASTIC  
 PUMP: PL SERIES      OPTION: HD 12V DC START SWITCH

**CIRCUIT 109**

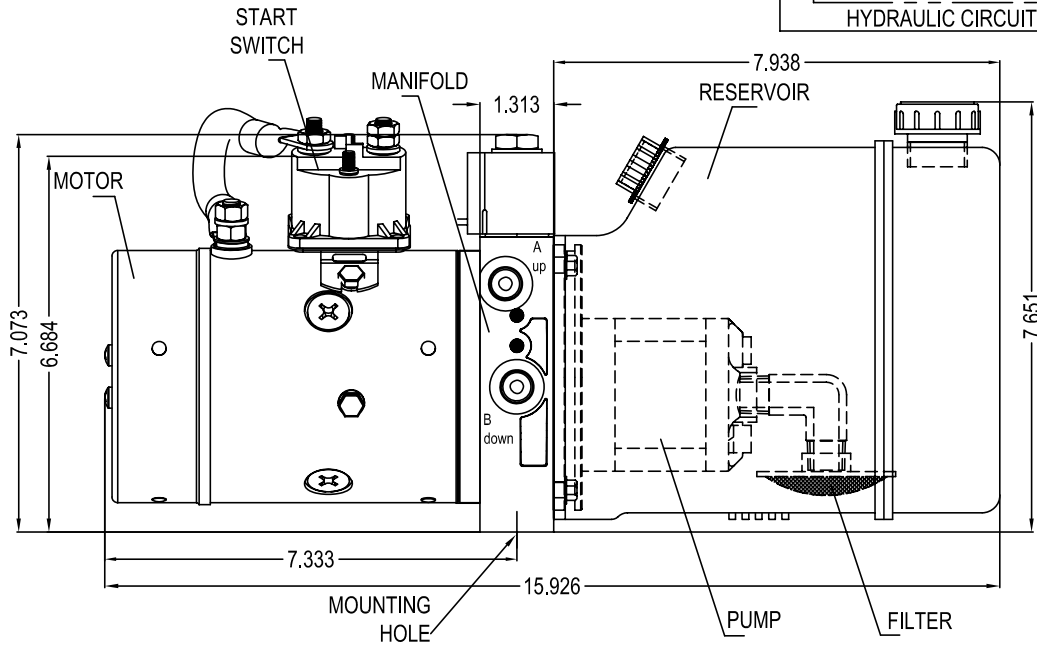
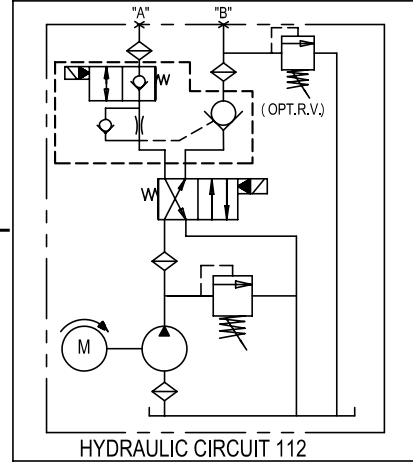
PUMP		MOTOR	RESERVOIR	MOUNTING
PL	CU.IN	3.0" 12V DC	STEEL RESERVOIR	HORIZONTAL
0.6	0.0384	4.5" 12V DC	1.5 QT	VERTICAL
5.8	0.3593	4.5" 24V DC	5 GAL	MISC
			PLASTIC RESERVOIR	DC START SWITCH
			2 QT	
			12 QT	

FOR OPTION / HOW TO ORDER SEE PAGE 4



**Description:**

DOUBLE ACTING CIRCUIT POWER UP, POWER DOWN OPERATION WITH 4WAY VALVE RELIEF VALVE AND PATENT PENDING NC 2WAY/PILOT CHECK VALVE CARTIDGE WITH FIXED FLOW CONTROL VALVE ON THE RETURN FLOW AT "A" PORT  
 OPTIONAL SECONDARY RELIEF VALVE.  
 "A" AND "B" CYLINDER PORTS ARE #6 SAE "O" RING(9/16-18)



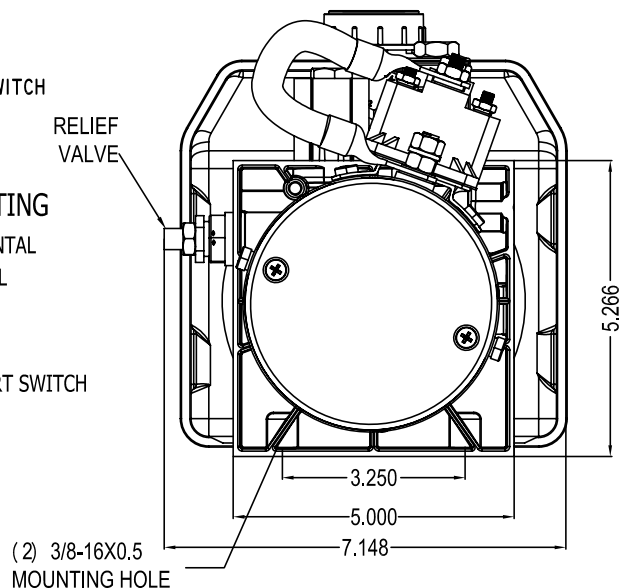
**AS SHOWN:**

MOTOR: 4.5" 12V DC      RESERVOIR: 3 QT. PLASTIC  
 PUMP: PL SERIES      OPTION: HD 12V DC START SWITCH

**CIRCUIT 109**

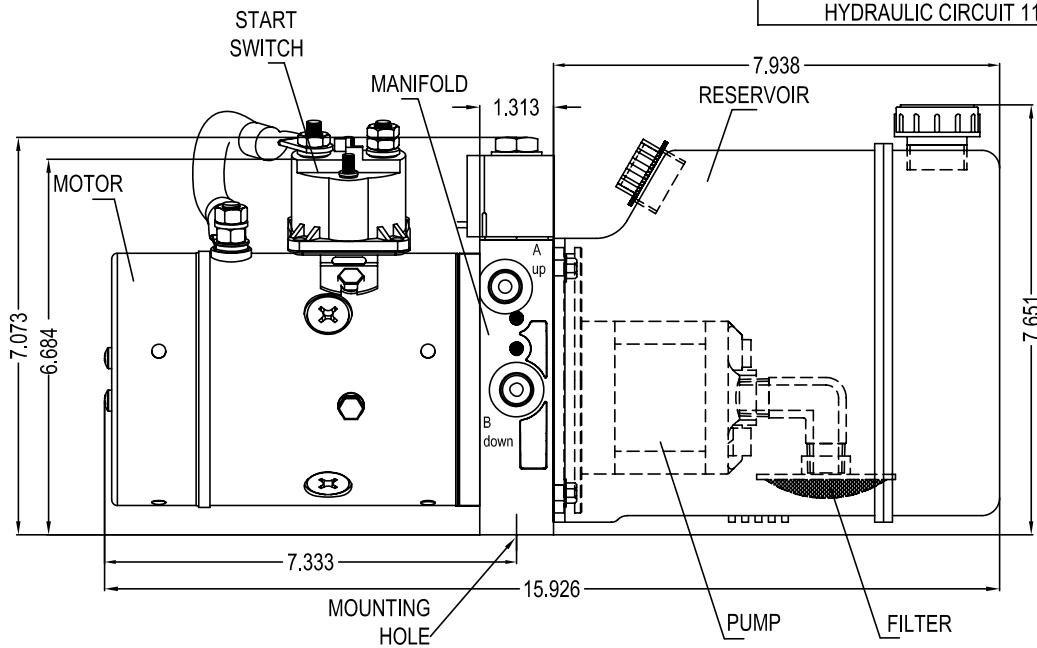
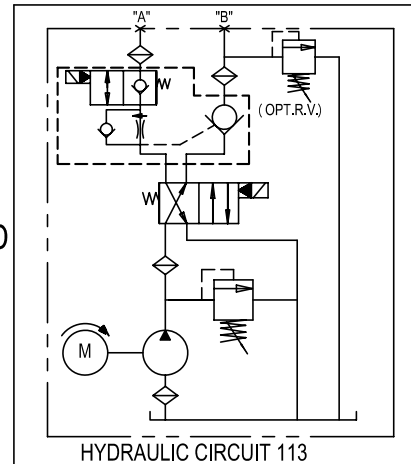
<b>PUMP</b>	<b>MOTOR</b>	<b>RESERVOIR</b>	<b>MOUNTING</b>
PL CU.IN	3.0" 12V DC	STEEL RESERVOIR	HORIZONTAL
0.6 0.0384	4.5" 12V DC	1.5 QT	VERTICAL
5.8 0.3593	4.5" 24V DC	5 GAL	<b>MISC</b>
		PLASTIC RESERVOIR	DC START SWITCH
		2 QT	
		12 QT	

FOR OPTION / HOW TO ORDER SEE PAGE 4



**Description:**

DOUBLE ACTING CIRCUIT POWER UP, POWER DOWN OPERATION WITH 4WAY VALVE RELIEF VALVE AND PATENT PENDING NC 2WAY/PILOT CHECK VALVE CARTRIDGE. PRESSURE COMPENSATED FLOW CONTROL VALVE ON THE RETURN FLOW AT "A" PORT. OPTIONAL SECONDARY RELIEF VALVE. "A" AND "B" CYLINDER PORTS ARE #6 SAE "O" RING(9/16-18)



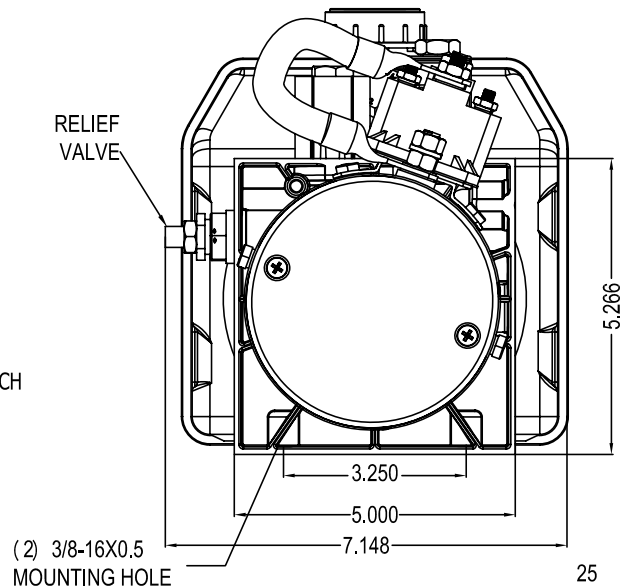
**AS SHOWN:**

MOTOR: 4.5" 12V DC      RESERVOIR: 3 QT. PLASTIC  
 PUMP: PL SERIES      OPTION: HD 12V DC START SWITCH

**CIRCUIT 109**

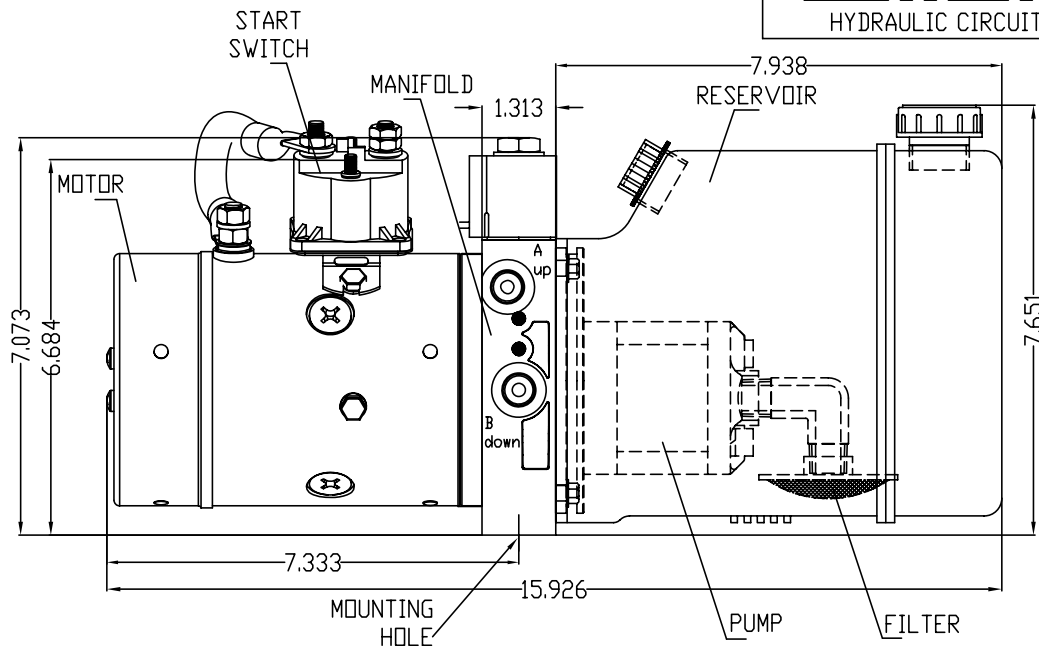
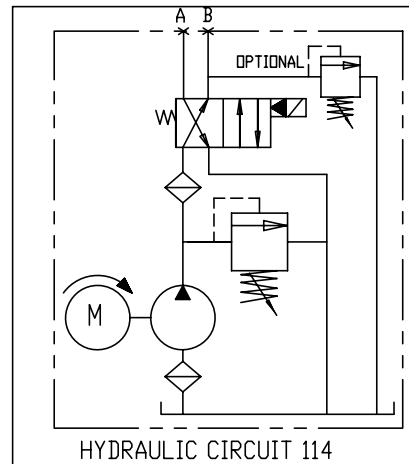
PUMP	MOTOR	RESERVOIR	MOUNTING
PL	3.0" 12V DC	STEEL RESERVOIR	HORIZONTAL
0.6 0.0384	4.5" 12V DC	1.5 QT	VERTICAL
5.8 0.3593	4.5" 24V DC	5 GAL	
		PLASTIC RESERVOIR	
		2 QT	MISC
		12 QT	DC START SWITCH

FOR OPTION / HOW TO ORDER SEE PAGE 4



**Description:**

DOUBLE ACTING CIRCUIT FOR POWER UP, POWER DOWN OPERATION WITH 4WAY AND RELIEF VALVE CARTRIDGE, OPTIONAL SECONDARY RELIEF VALVE. "A" AND "B" CYLINDER PORTS ARE #6 SAE "O" RING(9/16-18)



**AS SHOWN:**

MOTOR: 4.5" 12V DC      RESERVOIR: 3 QT. PLASTIC  
 PUMP: PL SERIES      OPTION: HD 12V DC START SWITCH

**CIRCUIT 109**

<b>PUMP</b>	<b>MOTOR</b>	<b>RESERVOIR</b>	<b>MOUNTING</b>
PL CU.IN	3.0" 12V DC	STEEL RESERVOIR	HORIZONTAL
0.6 0.0384	4.5" 12V DC	1.5 QT	VERTICAL
5.8 0.3593	4.5" 24V DC	5 GAL PLASTIC RESERVOIR	<b>MISC</b>
		2 QT	DC START SWITCH
		12 QT	

FOR OPTION / HOW TO ORDER SEE PAGE 4

