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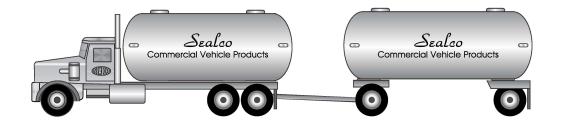
# Sealco Commercial Vehicle Products

Sealco









# Air Products Quick Reference



## Air Products Quick Reference



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#### **SAE Uniform Labeling For Valves**

Most Sealco valves have a small metal tag attached displaying the SAE uniform labeling code. This five character code is the valve type and the crack pressure. The first two characters indicate the valve type.

BV=Brake Foot Valve LV=Front Axle Limiting Valve PR=Ratio Relay Valve

QR=Quick Release Valve RB=Booster Relay Valve RD=Decaying Ratio Relay Valve RE=Relay Emergency Valve RV=Relay Valve

TP=Tractor Protection Valve XX=Other

The last three digits indicate the nominal crack pressure or force. For example 'RV040' would indicate a Relay Valve with a 4 pound crack pressure. The list below shows which tags (in bold) are installed on which valves.

**QR010 RD045 RV015** 2000D-3/8 2000D-1/2 200000 200001 110139 110600 110380 110360 110385 110365 200002 200003 200004 200006 **RD060 RV025** 110575 3100 **QR045** 2000B-3/8 2000B-1/2 **RE015 RV040 QR100** A1000S 110410 110412 110415 110416 110615 2000C-3/8 2000C-1/2 **RE045** 110197 110198 110199 110275 110200 110205 110460 110470 110475 **RB000 RV045** 110570 110571 110690 110606 110580 110338 110450 110582 110588 110605 110790 **RE085 RV055** 110459 110488 9125 110207 110228 110487 **RV060** 110507



# Spring Brake & Emergency Valves Quick Reference



View the full Sealco product line on the web at www.sealcocvp.com

#### **Spring Brake Valves**

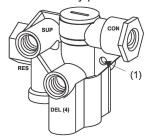
Spring brake valves are primarily designed to release the springs on dual air chamber brakes and fill the reservoir. All include supply line protection, anti-compounding support, and a delivery pressure holding feature. Each have four 3/8" delivery ports, a 3/8" supply port, a 3/8" control port and at least one ½" reservoir port.

**Fill Priority** indicates how the valve directs flow when the reservoir is empty. 'Spring' means the spring chambers get 100% of the flow up to about 80 psi. "Service" means the reservoir shares the flow with the spring chambers.

**Relay Fill** feature uses reservoir pressure to dramatically reduce the brake's release time.

#### **Premium Four Port Spring Brake Valves**

These small body premium valves include the Relay Fill feature.



Part Number	Fill Priority
110800	Spring
110700	Service

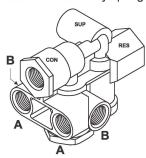
#### Service Assemblies

**110515** Pressure Protection **110705** Movable Seat.

(1) Hole indicates the valve is a 110800

#### **Value Priced Four Port Spring Brake Valves**

These are small body spring brake priority valves.



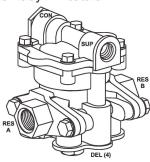
Part Number	Plugged Ports	
110500	None	
110505	Delivery Ports B	
110510	Delivery Ports A	

#### Service Assemblies

**110515** Pressure Protection **110520** Movable Seat.

#### **Protected Reservoir Four Port Spring Brake Valves**

These large body valves have two reservoir ports and include the Relay Fill feature.



Part	Reservoir		Rotated
Number	Α	В	Cover
110170	1/2"	1/2"	No
110171	1/2"	3/8"	Yes
110191	3/8"	1/2"	Yes
110310	3/8"	1/2"	No
110315	1/2"	3/8"	No

#### Service Assemblies

 Plug Unit (PRE 10/92) Plug Unit (Post 9/92) Major Repair Kit Minor Repair Kit

Rotated Cover Reservoir Supply Control Reservoir

#### **Emergency Control Valves**

110376 is a 3/8" ported emergency control valve. It is often used to add emergency & park brake features to relay valves on vehicles that do not use spring brakes.

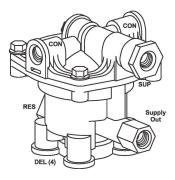
**110257** is a specialized 3/8" ported, emergency pressure protection valve. It provides supply line protection when coupled with the 110376 or the 110338 valve. It should not replace or be replaced with conventional pressure protection valves.



Always aim vent downward

#### **Relay Emergency Valves**

Relay emergency valves are used in brake systems with single chamber brake actuators. Each valve features a 3/4" reservoir port, four 3/8" delivery ports, two control and one supply port. Ratio valves produce a momentary pressure surge during harder than normal braking.



Non-Charging Style				
Part Number Con/Sup Ratio Supply Valve Out				
110338 3/8" No Yes				
110359 Non-Charging Valve Repair Kit				

Charging Style				
Part Number	Con/Sup Ports	Ratio Valve	Supply Out	
110200	1/4"	*Yes	No	
110205	3/8"	*Yes	No	
110460	1/4"	No	No	
110470	3/8"	No	No	
110475	3/8"	No	Yes	
110201 Charging Valve Repair Kit				

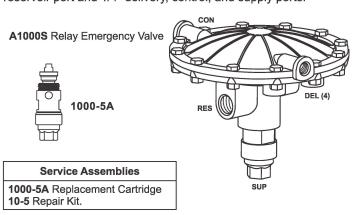
#### Service Assemblies/Kits

110143 Plug Unit Assembly 110162 Spool Assembly 110166 Minor Spool Kit

\*Ratio valves should not be used on dollies, steerable axles, & lift axles.

#### Relay Emergency Valves (Pre FMVSS 121 Regulations)

A charging style relay emergency valve used for single chamber brake actuators on US air brake systems prior to implementation of FVMSS 121. It features a 1.5 psi crack pressure, 1/2" reservoir port and 1/4" delivery, control, and supply ports.





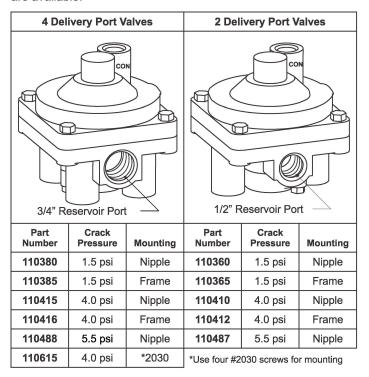
### **Service Brake Valves Quick Reference**



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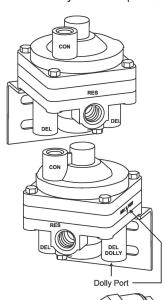
#### **Two & Four Delivery Port Piston Style Valves**

Piston style service relay valves with 3/8" delivery and control ports. Suitable for reservoir or frame mounting. No service parts are available.



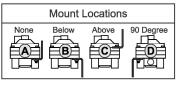
#### **Control Line Booster Valves**

These "speed up" valves are primarily used on dollies, lead semi, and long trailers to accelerate the apply and release of the control line signal. They have two 3/8" delivery ports, one ½" reservoir port, a 3/8" control port and feature a zero pound crack pressure. Some are equipped with a reduced flow delivery port marked "Dolly" which improves brake balance on trailer trains.



\*10200 ½ Check Valve

Part Number	Dolly Port	Mount	Check Valve
110570	Yes	В	None
110571	Yes	A	None
110580	No	В	None
110582	No	C	None
110588	No	D	None
110605	No	В	10200 ½
110606	Yes	None	10200 ½
110690	Yes	None	None
110790	No	None	None

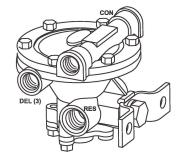


\*Most applications require the 10200  $\frac{1}{2}$  to be installed in the reservoir port.

#### **Three Delivery Port Diaphragm Style Valves**

These frame mounted valves are commonly used on tractor, trucks, or lift axles. They feature a 5.5 psi crack pressure, two 3/8" delivery ports, one 1/2" delivery ports, two 1/2" reservoir ports, two control ports and a mounting kit.

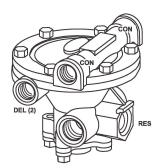
Part Number	Control Port	Mounting Kit
9125	1/4"	110237
110207	3/8"	110237
110228	3/8"	110156



9125-5 Plug Unit Assembly 912-5 Repair Kit

#### Two Delivery Port Diaphragm Style Valves

These rugged diaphragm valves are primarily used for single axle vehicle or lift axle applications. They are configured with a ½" reservoir port, two 3/8" control and two 3/8" delivery ports.



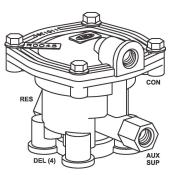
Part Number	Crack Pressure	Mounting
110197	4.0 psi	Nipple
110198	4.0 psi	Nipple (1)
110199	4.0 psi	Nipple (2)
110275	4.0 psi	Frame (3)
110507	6.0 psi	Tank

(1) 6002 (½") nipple included (2) 6003 (3/4") nipple included (3) 110237 frame kit included

**110227** Plug Unit Assembly For All But The 110507 **912-5** Repair Kit

#### **Four Port Service Relay**

Service relay valves with four 3/8" delivery ports, a 3/4 reservoir port and 3/8" auxiliary supply port (unless otherwise noted). Ratio valves produce a momentary pressure surge during harder than normal braking.



*Ratio Valves				
Part Number	Aux. Supply	Plug Unit (Crack Pressure)		
110139	110139 Yes 110143			
110584	Yes	110583 (5.5)		
110600	No	110143 (4.5)		
Non-Ratio Valve				
Part Number	Aux. Supply	Plug Unit (Crack Pressure)		
110450	Yes	110143 (4.5)		

110673 Auxiliary Supply Port Repair Kit

<sup>\*</sup>Ratio valves should not be used on dollies, steerable axles, & lift axles.



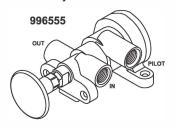
### **Control Valves Quick Reference**

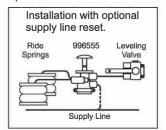


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#### Suspension Exhaust Valve With Reset Pilot Port

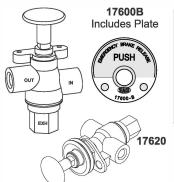
Commonly used to exhaust air suspensions.

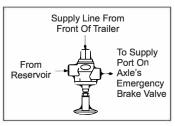




#### Park Brake Release Valves

Use to release parking brakes on trailers or dollies



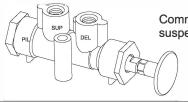


Single Hole Mounting With Weather Boot (No Plate)

176-5 Repair Kit

#### Normally Cked Pilot Reset Hand Valve

Used in systems where delivery vents when the vehicle's park brakes are released.



Commonly used for slider suspension locks.

110589WC

#### Momentary (Deadman) Hand Valve

Delivers when knob is depressed and held in. Commonly used for locking mechanisms such as sliding fifth wheel plates.



17620-2 Mounting Kit (Optional)
Includes Weather Boot & Retainer Nut



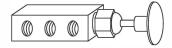
#### **Five Port & Suspension Valves**

These valves are commonly used to raise and lower lift axles.

#### 152000 Manual Valve

Includes extra pilot reset port. Can be mounted through panel or body mounted.



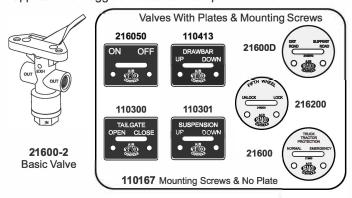


#### 138000 LSAS MR

Automatically lowers lifted axles when a load is sensed.

#### **Lever Hand Control Valves**

A versatile manually operated lever valve used in a wide variety of applications. Toggles side to side to open or close.



#### **Pilot Control Valves**

Pilot operated control valves with exhaust breather.

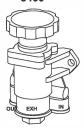




#### **Pressure Control Valves**

Robust pressure regulators suitable for outdoor use. Each has a 1/4" inlet, a 1/4" outlet, and a 1/8" exhaust port.

5400



Part Number	Minimum Delivery	Maximum Delivery
5400	Zero PSI	Inlet PSI
9400	5 PSI	85 PSI
940000	Zero PSI	Inlet PSI

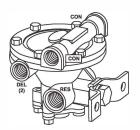
9400 & 940000



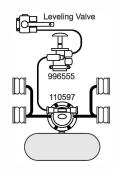
#### **Fast Fill Suspension Valves**

Provides fast filling of air suspension up to 40 psi then returns control to the leveling valve. Each has a minimum of two 3/8" control ports, two 3/8" delivery ports and a ½" reservoir port.

110595 Frame Mounted Version Includes an extra ½" reservoir and delivery port.



110597 Nipple Mounted Version





# Auxiliary System Valves Quick Reference View the full Sealco product line on the web at www.sealcocvp.com



#### **Set Pressure Protection Valves**

These valves can be nipple or body mounted. The 140 series include an internal check valve.





Always aim vents downward

In/Out Part Close Repair Number \*PSI **Ports** Kit 140200 3/8" 50 140201 140270 3/8" 60 140271 140280 3/8" 70 140281 140290 3/8" 140291 140300 1/4" 50 140201 140370 1/4" 60 140271 140380 1/4" 70 140281 140390 1/4" 80 140291 110258 3/8" 90 None 3/8" 70 110657 None

\*Nominal Closing Pressure

#### **Adjustable Pressure Protection Valves**

These PPVs feature an adjustable closing pressure.



Part Number	In/Out Ports	Factory *Set	Adjust Range
1300	3/8"	60	20-70
1300-45	3/8"	45	20-70
1300-80	3/8"	80	20-85

\*Nominal Opening Pressure

#### **Check Valves**

Rugged all metal body check valves

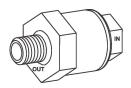


Single Check All Female			
Part Number	Inlet Port	Outlet Port	
2200 1/4	1/4"	1/4"	
2200 1/2	1/2	1/2	
2200 3/4	3/4"	3/4"	

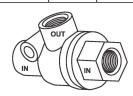
*Bypass Check All Female			
Part Number	Ports Size	Orifice Size	
110183	1/4"	.028"	
220000	3/4"	.030	
220100	1/4"	.062	

\*Bypass check valves deliver full flow in one direction and metered flow (based upon orifice size) in the other.

These should not be used in place of standard check valves.



Single Check Female/Male				
Part Inlet Outlet Number Port Port				
10200 3/8	3/8"	3/8"		
10200 1/2	1/2	1/2"		
10200 3/4	3/4"	3/4"		
102001	3/4"	1/2		
102002	1/2	3/4"		



Two Way Check All Female			
Part Number	Inlet Port	Outlet Ports	
320100	3/8"	3/8"	

#### **System Filter**



This supply line filter provides extra protection from contamination introduced through the

2550 Supply Line Filter With 3/8" NPT Ports

Inlet

Port

3/8"

Outlet

**Ports** 

1/4"

Crack

**PSI** 

4-5

Repair

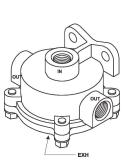
20-5

#### **Quick Release Valves**

Heavy duty brake and suspension system quick release valves Part

Number

2000B 3/8

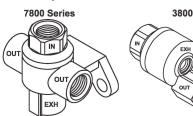


2000B 1/2	1/2"	3/8"	4-5	20-5
2000C 3/8	3/8"	1/4"	8-10	20-5
2000C 1/2	1/2"	3/8"	8-10	20-5
2000D 3/8	3/8"	1/4"	0-1	20D-5
2000D 1/2	1/2"	3/8"	0-1	20D-5
200000	1/4"	1/4"	0-1	20D-5
*200001	3/8"	3/8"	0-1	20D-5
*200002	1/2"	3/8"	0-1	20D-5
*200003	3/8"	1/4"	0-1	20D-5
*200004	3/8"	3/8"	0-1	200135
*200006	1/4"	1/4"	0-1	20D-5

\*Exhaust Port Threaded 1/2" NPT

#### **Quick Release & Holding Valves**

These valves will deliver and retain pressure until the supply pressure drops to less than half that of the delivery.



Part Number	Port Size
3800	1/4"
7800	1/4"
780210	3/8"
*780219	3/8"

\*Includes Exhaust Seal

[W]

#### **Mounting Nipples And Tees**

These parts are NPT threaded fittings for use in air systems. The plated steel schedule 80 nipples are suitable for mounting air brake valves to reservoirs.

Number

616

Number	Threads	Notes
6002	1/2"x1/2"	
6003	1/2"x3/4"	
6006	3/4"x3/4"	[W]
6010	1/2"x3/4"	[S]
6011	1/2"x1/2"	[S]
6012	3/4"x3/4"	[S] [W]

		F 1
617	1/2"x3/4"	[W] [F]
	ead Is Fema alled Sealan n Pad	

**Threads** 

1/2"x3/4"

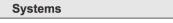


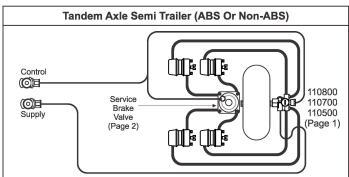
780212 3/8 NPT Tee With Mount 780212P Plated 3/8 NPT Tee With Mount 780214 3/8 & 1/4(2) NPT Tee With Mount

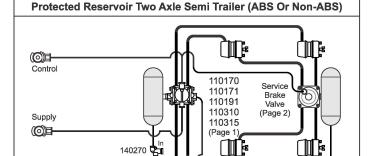


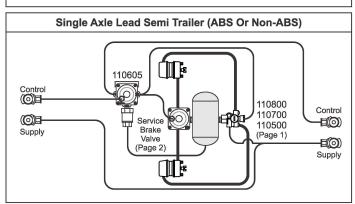
# **Application Diagrams**

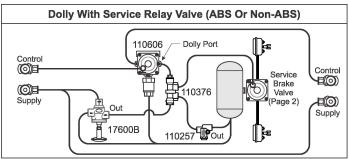


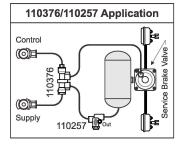


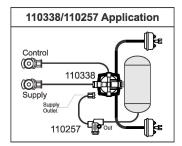




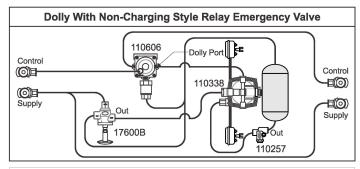


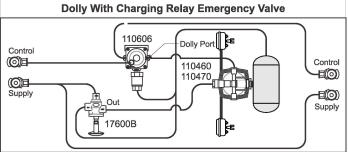


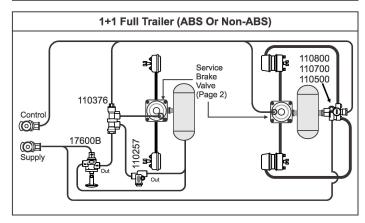




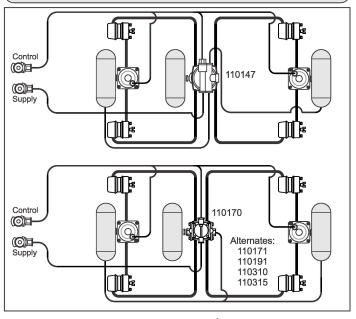
#### Systems (Continued)







#### Convert From 110147 to 110170



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