

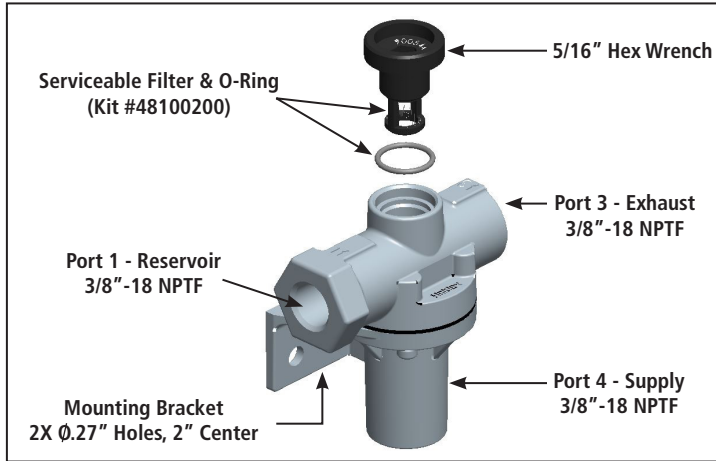


# Reservoir Purge Valve (RPV) Installation Instructions

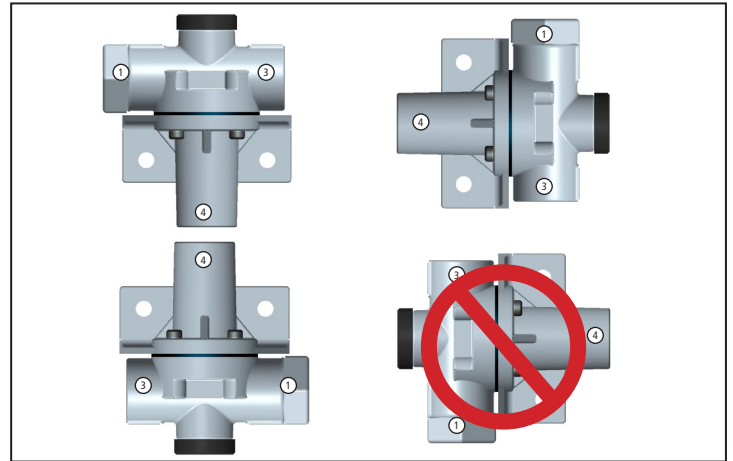
L31281  
Rev. 2/20

**DESCRIPTION:** The Reservoir Purge Valve (RPV) is used with the vehicle's pneumatic system to drain condensates from an air reservoir. The draining occurs when the vehicle is parked, and the supply air pressure is released to atmosphere.

## Reservoir Purge Valve Features



## Reservoir Purge Valve Orientation Options



## SPECIFICATIONS

Weight .....0.5 lbs  
Opening Pressure, min..... 115 PSI  
Port Connections.....See Above  
Ambient Temperature ..... -40°F to 180°F

Envelope Dimensions, inch.....3.5 x 3.1 x 2.0  
Closing Pressure..... 75 - 95 PSI  
Max. Working Pressure ..... 150 PSI  
Finish..... E-Coat, Black

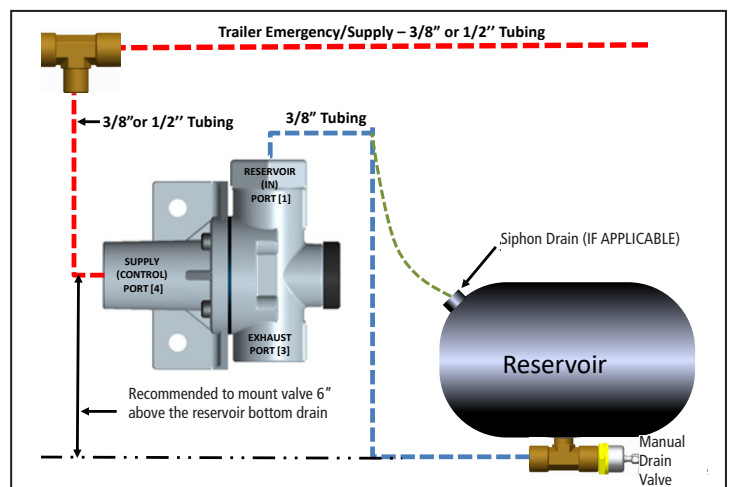
## INSTALLATION

**PRIOR TO WORKING ON THE VEHICLE, BLOCK WHEELS AND DRAIN THE AIR PRESSURE FROM THE RESERVOIR.**

**NPT FITTINGS:** Liquid sealant is preferred over tape to decrease the risk of contamination. Tighten NPT fittings using the turns from finger tight (T.F.F.T.) method, typically 2 – 3 turns.

- Install fittings into the RPV:
  - Port 1 - Reservoir:** 3/8" - 18 NPT x 3/8" Tube Elbow
  - Port 3 - Exhaust:** 3/8" - 18 NPT x 3/8" Tube
  - Port 4 - Supply:** 3/8" - 18 NPT x 3/8" Tube or 1/2" Tube
- Position the valve on the vehicle with sufficient space to facilitate service and ~ 6" above the bottom of the reservoir. Orient the valve with exhaust port downward or horizontal. Mount the valve to a rigid structure using two 1/4" bolts, washers and nuts.
- Remove the manual drain valve from the reservoir and install a branch tee. Install a 3/8" tube fitting and the manual drain valve into the branch tee.
- Connect 3/8" tubing between the branch tee and the valve **Port 1 - Reservoir**.
- Cut the existing 3/8" or 1/2" Emergency/Supply line tubing and insert the corresponding size tube tee fitting.
- Connect 3/8" or 1/2" tubing from the open port of the Emergency/Supply line tee to the valve **Port 4 - Supply**.
- Connect a short [~ 6"] piece of 3/8" tubing to the valve **Port 3 - Exhaust**.
- Start engine or apply shop air to the Emergency/Supply line to build system pressure in reservoir to ≥ 115 PSI. Check for leaks. Perform Test Operation.

## PLUMBING DIAGRAM



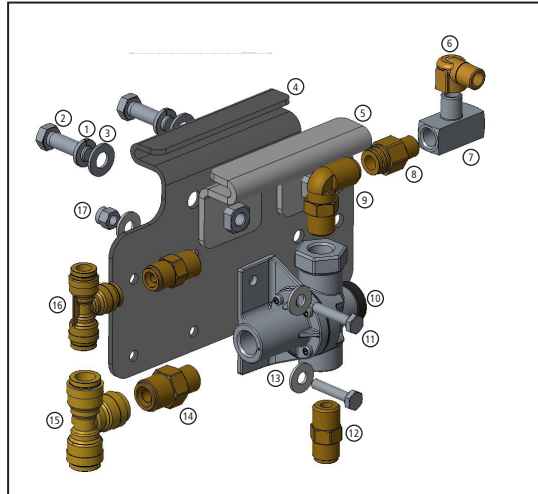
## TEST OPERATION

Set parking brakes or remove shop air from the Emergency/Supply line. Release of the Emergency/Supply line air pressure will allow the RPV to expel condensates and contaminants from reservoir until the pressure depletes to 75 - 95 PSI.

**Retrofit Kit P/N 42123048 Installation Instructions shown on Reverse Side.**

### RETROFIT KIT P/N 42123048 CONTENTS

Item	Description	Qty.
1	WASHER, 3/8" PLAIN	2
2	SCREW, 3/8"-16 X 1.25"	2
3	WASHER, 3/8" LOCK	2
4	PANEL	1
5	BRACKET, TOP	1
6	1/4" NPT ELBOW	1
7	1/4" BRANCH TEE	1
8	1/4" NPT X 3/8" PTC	1
9	3/8" NPT X 3/8" PTC ELBOW	1



Item	Description	Qty.
10	VALVE, RESERVOIR PURGE	1
11	SCREW, 1/4" - 20 X 1.25"	2
12	3/8" NPT X 3/8" PTC	2
13	WASHER, FLAT 1/4"	4
14	3/8" NPT X 1/2" PTC	1
15	1/2" TEE PTC	1
16	3/8" TEE PTC	1
17	NUT, HEX LOCK 1/4"-20	2

### TRAILER RAIL INSTALLATION

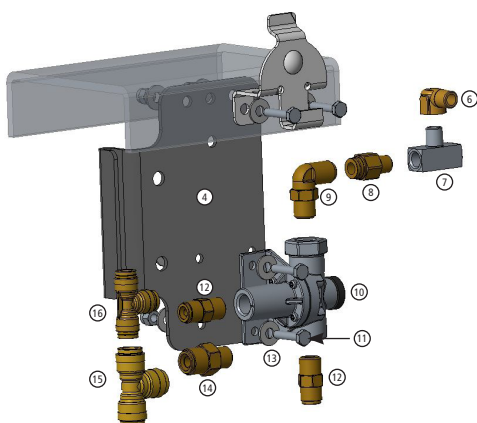
- Install fittings into the RPV [Item 10]:
  - Port 1 - Reservoir** [Item 9]
  - Port 3 - Exhaust** [Item 12]
  - Port 4 - Supply** [Item 12 OR Item 14]
- Mount the RPV [Item 10] to the Panel [Item 4] using Items 11, 13 and 17. Tighten the 1/4" screws to 100-120 in-lbs.
- Clamp the Panel/RPV Assembly to the trailer rail, close to the reservoir, using Top Bracket [Item 5] with Items 1, 2 and 3. Tighten the 3/8" screws to 27-35 ft-lbs.
- Remove the manual drain valve from the reservoir:
  - Bottom Port Manual Drain Valve - Install Branch Tee [Item 7] into the reservoir. Install PTC [Item 8] and the manual drain valve into the Branch Tee [Item 7].
  - Upper Port (Siphon) Manual Drain Valve - Install 1/4" Elbow [Item 6]. Install 1/4" Branch Tee [Item 7] into the 1/4" Elbow [Item 6]. Install PTC [Item 8] and manual drain valve into the 1/4" Branch Tee [Item 7]. Connect 3/7" tubing between PTC [Item 8] in the 1/4" Branch Tee [Item 7] to PTC Elbow [Item 9] in Port 1 [Reservoir IN] of the RPV [Item 10].
- Cut the existing 3/8" or 1/2" Emergency/Supply line tubing and insert the appropriate sized PTC Tee - 1/2" [Item 15] or 3/8" [Item 16].
- Connect 1/2" or 3/8" tubing from the open port of the Emergency/Supply line PTC Tee to 1/2" PTC [Item 14] or 3/8" PTC [Item 12] in Port 4 [Control] of the RPV.
- Connect 3/8" x 6" tubing to PTC [Item 12] in Port 3 [Exhaust] of the RPV.
- Start engine or apply shop air to the Emergency/Supply line to build system pressure in reservoir to  $\geq$  115 PSI. Check for leaks.

### TEST OPERATION

Set parking brakes or remove shop air from the Emergency/Supply line. Release of the Emergency/Supply line air pressure will allow the RPV to expel condensates and contaminants from reservoir until the pressure depletes to 75 - 95 PSI.

**PERIODIC MAINTENANCE:** Check RPV filter approximately every three (3) months or when the air flow is significantly reduced. Use a 5/16" hex wrench to remove the filter. The filter can be cleaned or replaced using Kit P/N 48100200.

### DOLLY HOSE HANGER INSTALLATION



### DOLLY BRAKE CONTROL VALVE INSTALLATION

