The ILAS III Valve is used for the lowering and lifting of one or multiple axles on an air ride suspension depending on the load applied to the vehicle.

**Assembly**
- Use the provided holes to install the ILAS III Valve. Make sure the valve is mounted in a location that is protected from water on the road and high pressure cleaning. The fittings on the valve should point downward. Refer to Figure 1 and Figure 3.

**Note:** If a high pressure washer is used to clean the vehicle, a distance of at least 50cm (20”) should be used.
- The control button (manual version) should be easily accessible and not protrude over the edge of the vehicle when pulled out.
- The valve should also be protected from unintentional activation.
- If the valve will be painted or coated, avoid painting the exhaust vent hole and rubber boot for the control button (manual version).
- Check and record the lowering pressure on the valve or in an area visible from the lift axle(s).

**Port description:**
- 1 = Supply
- 11 = Suspension Air Bags
- 21,22 = Lift Axle Suspension Air Bags
- 23 = Lift Bags
- 3 = Exhaust

**Warning:**
Keep area of lift axle clear. The axle(s) will automatically lower when the lowering pressure is reached.

### General Information

**Part Numbers**

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**Installation Instructions for the 90555293 (Manual Lift)**

The lift axle(s) automatically lower when the vehicle is loaded. The control button is then used to raise the lift axle when the vehicle is unloaded. When the vehicle is unloaded, the control button can be pulled out to bring the axle(s) down manually.

**NOTE:** To determine the desired Ps1 pressure, connect gauge to air spring line and load the vehicle as desired for lowering the axle. The Ps1 pressure can be adjusted to the desired pressure.

**Functional Check for Valve**

1. Connect gauge and regulator to port 11
2. Connect pressure gauge to test port (Metric M16x1.5 threaded fitting).
3. Verify current Ps1 setting by setting the regulated pressure into the 11 port to 80 psi.
4. Watch for the point on the test port gauge that the valve exhausts and triggers the lowering of the axle(s).
5. Relieve pressure from test port.

The ILAS III Manual is factory set at 62 psi for Ps1. It is important when making an adjustment to the Ps1 setting that the adjustment is made from a higher Ps1 setting to a lower Ps1 Setting. If this is not followed then the Ps1 will be triggered before the adjustment can be made. The Ps1 can be set between 44 and 76 psi.

**Setting the Control Pressure Ps1**

1. Set the desired pressure for lowering the lift axles using the regulator in port 11.
2. Verify that the control button is pressed in for automatic control of the lift axle.
3. Once equalized, regulate the pressure in port 11 down to the desired Ps2 setting. Allow the pressure gauge. Once equalized slowly back out (turn to the left) the Ps1 adjustment nut using the adjustment wrench (904 053 001). When the valve exhausts stop adjustment, the valve has been set.

The ILAS III Automatic is factory set at 20 psi for Ps2. In order to make an adjustment to Ps2, Ps1 must be triggered first. It is important when making an adjustment to the Ps2 setting that the adjustment is made from a lower Ps2 setting to a higher Ps2 Setting. If this is not followed the Ps2 will trigger before the adjustment can be made. The Ps2 has an adjustment range of 10 to 45 psi. This is dependent on the Ps1 setting. See Figure 5 for adjustable range.

**Setting the Control Pressure Ps2**

1. Remove red cap, with fingers back out white nut until the face of the nut is at the end of the threads. DO NOT REMOVE WHITE NUT FROM STUD!
2. Ps1 must be triggered before setting Ps2. Set regulated pressure in port 11 to 80 psi, allow test port to equalize with port 11 pressure.
3. Once equalized, regulate the pressure in port 11 down to the desired Ps2 setting. Allow the test port gauge to equalize.
4. Turn in white nut (turn to the right) until valve activates. The Ps2 has now been set.
5. Verify that valve has been set correctly by repeating steps 1-7 of the functional check above. slight adjustment may be needed to precisely set Ps1 and Ps2 as an adjustment to one can affect the adjustment of the other.
6. Replace protective caps. Enter the current Ps2 and 2 settings on the valve or in an area visible from the lift axle(s).

**Installation Instructions for the 90555288 (Fully Automatic)**

The operation of the lift axle is fully automatic based on the load applied to the vehicle. The lift axle can be automatically lowered after the predefined control pressure, Ps1, has been reached. Likewise, the lift axle will automatically lift when the second predefined control pressure, Ps2, has been reached. Control pressures can be set to specific vehicle loads.

**Functional Check for Valve**

1. Connect gauge and regulator to port 11
2. Connect pressure gauge to test port (Metric M16x1.5 threaded fitting).
3. Verify current Ps1 setting by setting the regulated pressure into the 11 port to 80 psi.
4. Watch for the point on the test port gauge that the valve exhausts and triggers the lowering of the axle(s).
5. Relieve pressure from test port.
6. Watch for the point on the test port gauge that the valve exhausts and triggers the raising of the axle(s).
7. Relieve pressure from test port.

The ILAS III Automatic is factory set at 62 psi for Ps1. It is important when making an adjustment to the Ps1 setting that the adjustment is made from a higher Ps1 setting to a lower Ps1 Setting. If this is not followed then the Ps1 will be triggered before the adjustment can be made. Ps1 can be set between 44 and 76 psi.

**Setting the Control Pressure Ps1**

1. Set the desired pressure for lowering the lift axles using the regulator in port 11.
2. Verify that the control button is pressed in for automatic control of the lift axle.
3. Once equalized, regulate the pressure in port 11 down to the desired Ps2 setting. Allow the pressure gauge. Once equalized slowly back out (turn to the left) the Ps1 adjustment nut using the adjustment wrench (904 053 001). When the valve exhausts stop adjustment, the valve has been set.
4. Verify that valve has been set correctly by repeating steps 1-5 of the functional check.
5. Enter the current Ps1 setting on the valve or in an area visible from the lift axle(s). Replace the protective cap.
The following steps are taken to fit the ILAS III Automatic Valve with a manual override system. Refer to Figure 6 during component installation.

1. Remove rubber cap on test connection port. (Refer to Figure 3)
2. Remove test port fitting and ILAS III Valve plug. The test fitting and plug will be removed as one piece.
3. Carefully remove the test fitting from the plug.

**WARNING:** Do not damage the plug threads or the o-ring. If the threads or the o-ring are damaged, the valve will not seal correctly and the valve may no longer function properly.

4. Thread in and tighten push to connect fitting. **Do not** use Teflon tape as a thread sealant.
5. Insert the plug and fitting assembly into the ILAS III Valve in the original location. (Refer to Figure 6)
6. Tighten the valve plug and PTC fitting assembly into ILAS III Valve.
7. Determine the mounting location of the ball valve. The ball valve will be used to manually lift and lower the axle when unloaded. The ball valve should be in a location that is easy to see as well as protected from unintentional activation.
8. Install fittings into the ball valve. One ¼” fitting as well as one 3/8” fitting are needed.
9. Place ball valve in desired location in the **OFF** position.
10. Connect ¼” line to the newly installed PTC fitting and ¼” fitting on the ball valve. Connect 3/8” line to the opposite end of the ball valve and the supply line. See plumbing diagram for reference.
11. Check system for leaks.

**NOTE:** If leaks are present the system may not function properly in the automatic mode.

12. Check system for proper function.

Ball valve **ON** = Lift axle will drop when trailer is unloaded
Ball valve **OFF** = Lift axle will retract when trailer is unloaded

**NOTE:** The valve will resume fully automatic operation when the ball valve is in the **OFF** position.

**NOTE:** When the manual override is used, the system may take several minutes to lift or lower the axles.

The system is operating properly and this is not a cause for alarm. The ball valve should remain OPEN or CLOSED until the axles are in the full up or down position.

Refer to the above sections to adjust the operating pressures of the Automatic ILAS III Valve.