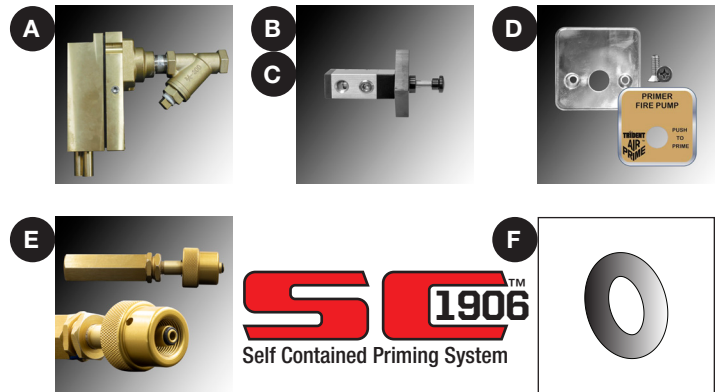


Self Contained Priming System, Trident Part Number: 31.001.50
Includes Items A through E Listed Below

ID #	Quantity	Description	Part #
A	1	Manual AirPrimer, 3 Barrel	31.001.17
B	1	Panel Valve	30.005.3
C	1	Plug, 1/4" NPT Socket Head, Brass (Pre Installed)	09.005.2
D	1	Panel Label Kit	02.006.20
E	1	Preset Pressure Regulator	14.013.0
F	Pack of 6	Regulator O-Rings (Available Separately)	27.007.16



Installation of the AirPrime SC 1906

1. Ensure that the wheels are chocked. Vehicle is tagged **Out of Service**.
2. Fabricate a Primer mounting bracket. See **Figure 1** for the hole pattern of the 1/4-20 tapped holes on the primer body. Position the primer **above** the highest suction point on the fire pump. The primer must be mounted in a vertical position with the three discharge ports facing down. Note that water may discharge from the primer, so locate the primer in a spot where any discharge will not damage other components.
3. The mounting bracket must be securely fastened to the vehicle. An example is shown in **Figure 2** that secures the primer, primer control and air source in one compact package.
4. Ensure that the air cylinder is protected from abrasion on the sides and bottom and that it is adequately secured to its mounting bracket so that it cannot bounce out during transportation. Nylock nuts and or Loctite are to be used on all fasteners.
5. The air cylinder can be positioned away from the control. Avoid placing the cylinder near the engine exhaust system. Ideally the cylinder should be positioned for easy access to open and close the cylinder valve, ability to read the pressure gauge and ease of exchanging the cylinder when required.
6. Connect the single port side of the primer control valve to the top of the primer using 1/4" rigid pipe or 1/4" air brake tubing based on your installation location requirements. Pipe sealant or Teflon tape should be used on all threaded connections. **NOTE:** Avoid excessive use of sealant that may migrate into the internals of the primer and impede airflow.
7. Connect the primer's 3/4" FNPT Wye Strainer Inlet to the suction priming port on the fire pump. Use non-collapsible 3/4" Inside Diameter hose or tubing.
8. Connect the top non-plugged port of the two port side of the primer control valve to the preset pressure regulator with 1/4" NPT Fittings and 3/8" Air Brake Tubing. Use fittings/elbows that correspond with your installation locations requirements. Allow enough length to avoid sharp bends or kinks and keep tubing away from the exhaust system or heat sources.
9. There is a small black O-Ring **Figure 3** inside the threaded coupling of the pressure regulator that seals inside the neck of the air cylinder valve. This is easily lost if the coupling is loosened while under pressure. It is suggested that spare O-Rings be kept on the vehicle in a clean container. A pack of six (6) O-Rings (P/N 27.007.16) is available from Trident.

Operation of the AirPrime SC 1906

NOTE: All pump operators must be trained and familiar with the use of this device.

1. Check the cylinder pressure before and after using the primer. If cylinder pressure is 500 PSI or below, the cylinder should be replaced with a full one. Weekly checks of cylinder pressure are suggested for infrequently used trucks. The cylinder valve should always be in the off position when the primer is not being used.
2. To initiate a prime:
 - Connect the suction hose to a water source.
 - Start the fire pump.
 - Fully open the cylinder valve on the air cylinder.
 - Push the primer control valve button until a prime is achieved as noted by pressure on the pump discharge gauge or water exiting the primer outlet.
 - Release the primer button.
 - When finished, close the cylinder valve. Check that adequate cylinder pressure remains.

Operation of the AirPrime SC 1906 (continued)

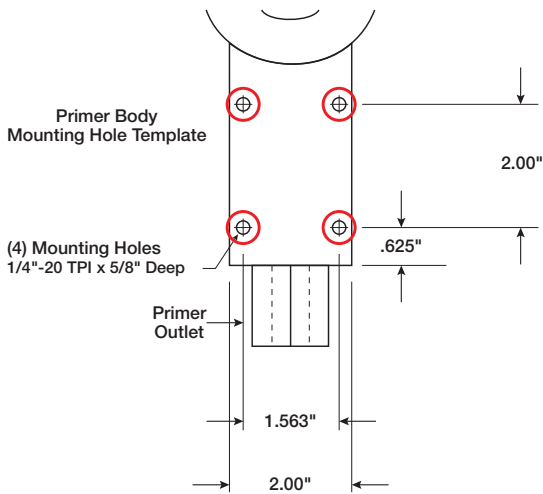


Figure 1

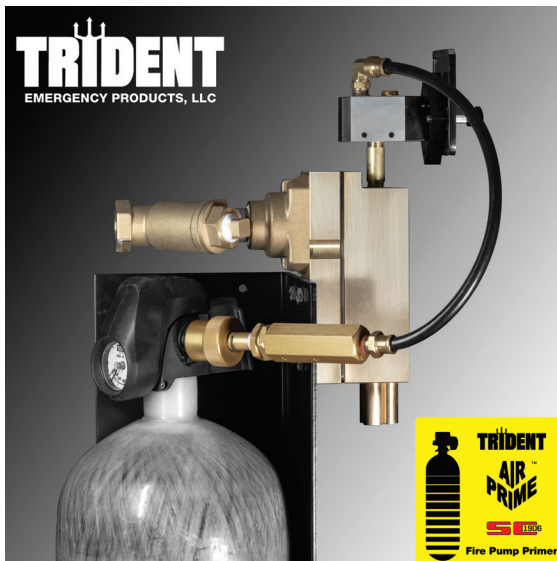


Figure 2



Figure 3

3. Repriming the fire pump:

- Ensure that the air cylinder valve is fully open and that adequate pressure exists.
- Verify that the suction hose is immersed in a water source.
- Push the primer control valve button until a prime is achieved.
- Release the primer button.

4. Changing an air cylinder:

- Advise Incident Command/Operations that you will be replacing an air cylinder. Water supply may be interrupted.
- Fully close the air cylinder valve.
- Push the primer control valve button for 5 seconds to release any residual pressure in the system.
- Loosen and disconnect the pressure reducing regulator.
- Loosen the cylinder retention strap/clamp.
- Remove the empty cylinder. Store where empty cylinders are kept.
- Replace with a full cylinder and secure strap/clamp.
- Reconnect the pressure reducing regulator.
- If operations are continuing, fully open the air cylinder valve.
- Advise Command/Operations that you are back in service.

5. Ending Priming Operation

- Turn off fire pump.
- Disconnect, Drain and Store suction hose on truck.
- Fully close the air cylinder valve.
- Push the primer button to bleed off any remaining pressure.
- Check that adequate pressure remains in the cylinder.

6. Precautions

- Do not use the Pressure Reducing Regulator as a Grab Handle. It is connected to a high pressure cylinder and if damaged will release air under extreme pressure.
- Only use air cylinders that have current hydrostatic test dates.
- Ensure that the air cylinder is properly restrained prior to moving the vehicle.
- Ensure that the air cylinder, pressure reducing regulator and air hoses are away from the exhaust system and heat generating devices.
- Keep the threaded connections clean. Remove any dirt that may have gathered on the pressure reducing regulator and cylinder valve prior to disconnecting the coupling.
- Fully close air cylinder valve when the primer is not being used.
- Perform frequent checks of the air cylinder pressure. Replace the cylinder if remaining pressure is 500 PSI or less.

7. Additional Information

- Visit www.TridentAutoAirPrime.com or www.TridentDirect.com
- Refer to the AirPrime Operation and Installation Guide for more information.

