

## Pressure Guard Troubleshooting

### The warning light is on

Can you hear an air leak?

**Yes-** pinpoint the leak (**soapy water in spray bottle is required**)

**No-** unhook all the wheel hoses at the hubcaps

**Light stays on-** the leak is in the Pressure Guard system or some trailer component is consuming air and closing the pressure switch

**Light shuts off-** there is a leak somewhere from the wheel hoses out to the tires. Reconnect each wheel hose one by one, and check when light comes back on (**it helps to have two people**). The wheel which turns on the warning light is the one with the leak.

Soap check that wheel hose, valve stem, tire, tire tread, etc.

### Alternative method-

when parking for several hours/days, unhook wheel hoses at the hubcap. Later, thump check the tires with a tire batten to find the low tire. Soap check that wheel hose, valve stem, tire, tire tread, etc.



The warning light doesn't come on

**Check** to see if earlier incandescent warning light is burned out.

**Check** the pressure at the valve stem on the tee fitting adjacent to the pressure switch (with a tire gauge), then check the setting of the pressure switch (printed around rim of switch, or last 2 or 3 digits of pressure switch part number)

**System pressure is higher than the pressure switch rating**– double check warning light operation. Close quarter turn valve feeding Pressure Guard regulator, unhook one wheel hose at hubcap, then using small screwdriver, bleed down system pressure. Light should come on.

**If pressure is lower than pressure switch rating**– check for power on the center pin of the seven way plug coming from the tractor

**No power**– investigate or repair

**Power**– check for power at the black wire feeding the Pressure Guard system (ABS pigtail, or A position of the 4 way weatherpack plug outside of the Pressure Guard enclosure, or one side of the Pressure Guard switch)

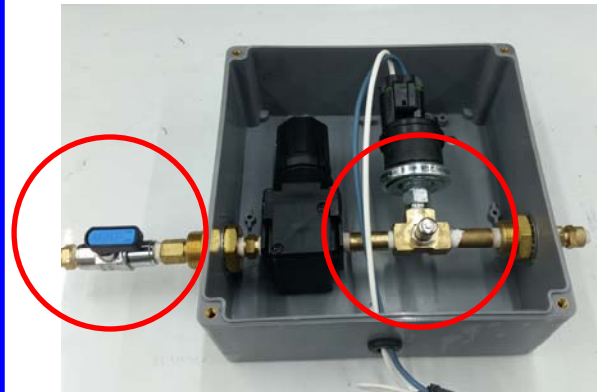
**No power**– repair broken/corroded/severed wire

**Power**– check for power at the black wire bullet connector near the warning light.

**No power**– find point of broken wire or corrosion.

**Power**– If LED warning light, make sure black wires are connected together, white wires together (LED lights are polarity sensitive and won't work if + and – are reversed)

**Still won't work**– check the ground connections (a poor ground can cause the system to ground back through other lights causing them to glow)



A– positive in B– ground in C– warning light ground D– warning light positive



**I audible leak**

Can you pinpoint the leak?

**Yes-** determine where leaking/ repair

**No-** unhook all the wheel hoses at the hubcaps

**Light stays on-** the leak is in the Pressure Guard system. Soap check all Pressure Guard tubing connections and the axle vents- repair any leaking connections

Or, a trailer component is consuming air and closing the pressure switch (example: selector valve for the sliding second axle lock pins vibrated out retracting pins and pump-airbags tight drawing air from the Pressure Guard system)

**Light shuts off-** there is a leak somewhere between the wheel hose and the tire tread. Reconnect each wheel hose one by one, and check when light comes back on (it helps to have two people). The wheel which turns on the warning light is the one with the leak. Soap check that wheel hose, valve stem, tire, tire tread, etc.



Push/pull valve vibrated out dropping trailer air tank pressure. This withdrew air from the Pressure Guard system turning on warning light. Pressure Guard system did not have a problem. Pressure Guard wheel hoses have check valves preventing tire pressure back-flow



Be sure to soap check this crimp on hoses that have been in service several years



**Troubleshooting leaks inside the axle (blowing bubbles at the axle vent)**

If oil hubs or grease hubs with rubber check plugs- pull plug on one side of axle to see if air leak is louder on that side. Then try the other side. The louder side is the one to repair.

If you can't tell which side is leaking- per repair section, remove hubcaps on affected axle.

Unthread rotating shafts from hubcaps.

Cap each rotating shaft with a brass 1/8" NPT cap.

Insert each rotating shaft back into the spindle plug. Wire each rotating shaft in place (with light wire) so they can't blow out. Pressurize Pressure Guard system and spray soapy water along rotating shaft back into spindle plug.

**Find leak at spindle plug/rotating shaft-** replace spindle plug/rotating shaft assembly per repair section. **\*ALL TUBING CONNECTIONS MUST BE RENEWED TO LATEST COMPRESSION FITTINGS! SPINDLE PLUGS AND ROTATING SHAFTS MUST BE REPLACED IN MATCHED SETS!**

**No leak at spindle plug/rotating shaft-** spray soapy water at vent holes in spindle plug 12 o'clock position

**Find leak at vent holes-** leak is inside axle.

Per repair section, pull spindle plug and inspect tubing connection at the spindle plug. **\*ALL TUBING CONNECTIONS MUST BE RENEWED TO LATEST COMPRESSION FITTINGS!** Also check tubing condition inside axle. Tubing contacting a hot axle tube (brake malfunctions) will melt causing leaks. **It's highly recommended to renew all tubing inside the axle unless recently serviced.**

**No leak at vent holes-** use a rubber tipped air nozzle and pressurize the hubcap where the rotating shaft was removed. Spray soapy water on the inside of the hubcap looking for leaks. Hubcap leaks are non-repairable and must be replaced



Soap check along rotating shaft back into spindle plug for leaks



Vent holes

## Tire Goes Flat

Did it go flat while driving?

**Yes-** the Pressure Guard system can only fill small leaks. Larger tire damage will still cause the tire to go flat

**No-** Is the shut off valve next to the Pressure Guard regulator shut off?  
(handle perpendicular to the air line is off parallel to the air line)

Allow the Pressure Guard system to operate and Soap check the suspect wheel hose, valve stem, tire, tire tread, etc.

**Find leak-** repair

**No leak-** disconnect hose at the hubcap and spray soapy water on disconnected hose end (hubcap end). It should not create bubbles (hose has a check valve in it which can possibly fail)

**Hose leaking-** replace hose

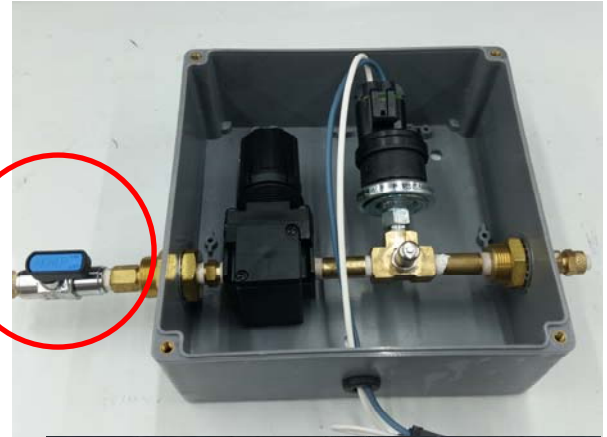
**Hose not leaking-** remove hose from wheel and temporarily connect to hubcap. With the system operating, brakes released, air should blow out of the hose.

**Air blows out of hose-** double check condition of O'rings at each end of hose

**Air doesn't blow out of hose-** take a short Phillips screwdriver and depress the center plunger in the brass air outlet of the hubcap.

**Air blows out brass fitting-** replace hose

**Air doesn't blow out brass fitting-** disconnect opposite fitting on hubcap (if wheel end has duals) to check for air flow. Also check all other hoses and hubcap outlets on the trailer to check the extent of "no-flow" condition.



Soap check hose ends for backflow



Flow check hubcap outlets with small screwdriver

**Tire Leaking Down**

Can you determine which tire is leaking?

**Yes-** repair as necessary

**No-** unhook all the wheel hoses at the Hubcaps.

**Light stays on-** the leak is in the Pressure Guard system. Soap check all Pressure Guard tubing connections and the axle vents-repair any leaking connections Or, some trailer component is consuming air and closing the pressure switch

**Light shuts off-** there is a leak from the wheel hoses out to the tires Reconnect each wheel hose one by one, and check when light comes back on (it helps to have two people). The wheel which turns on the warning light is the one with the leak. Soap check that wheel hose, valve stem, tire, tire tread, etc. Especially check the wheel hose ends (leaking O'rings)



Soap check both ends of each hose, base of each valve stem



Soap check axle vents, long vents may be tied high in suspension